Program & Buyer's Guide

www.siggraph.org/s2008

SIGGRAPH2008 | Evolve

The 35th International Conference and Exhibition on Computer Graphics and Interactive Techniques

CONFERENCE: MONDAY, 11 AUGUST - FRIDAY, 15 AUGUST 2008
EXHIBITION: TUESDAY, 12 AUGUST - THURSDAY, 14 AUGUST 2008

LOS ANGELES CONVENTION CENTER LOS ANGELES, CALIFORNIA USA

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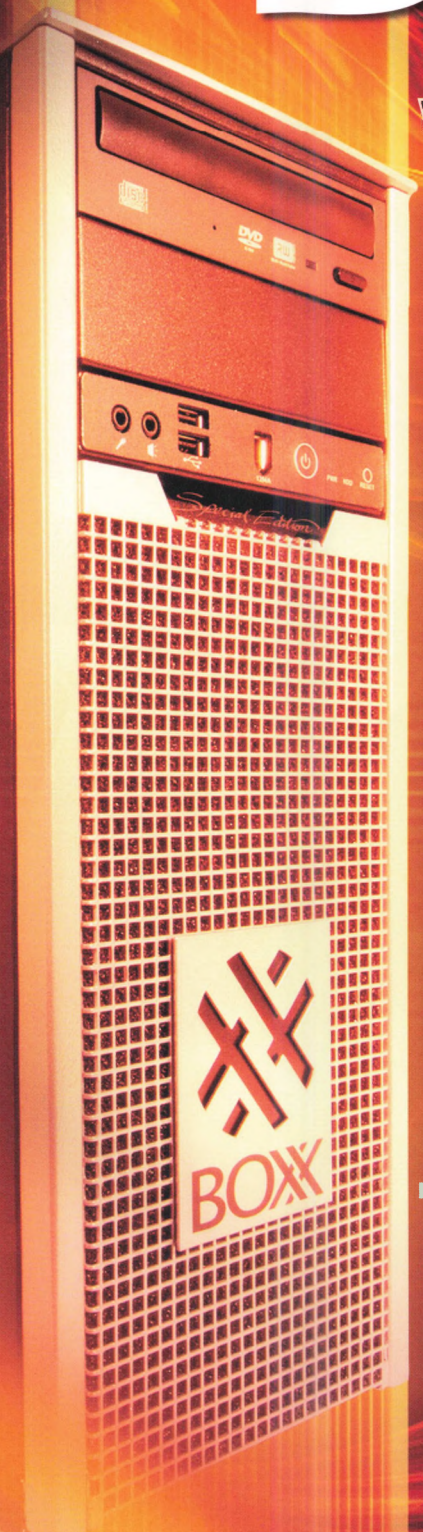

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SIGGRAPH2008

Conference Registration Categories

- ■ Full Conference Access
- ● Basic Access
- ▲ Computer Animation Festival

		SUN 10 AUG	MON 11 AUG	TUE 12 AUG	WED 13 AUG	THU 14 AUG	FRI 15 AUG
	Registration	1 - 7 pm	7:30 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 3:30 pm
	Merchandise Pickup	1 - 7 pm	7:30 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 3:30 pm
	SIGGRAPH Store	1 - 7 pm	7:30 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 6 pm
■	Classes		8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm
■	Geek Bar		8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm
■	Informal Forums			10:30 - 11:30 am		8:30 am - 12:15 pm	
■	Panels		3:45 - 5:30 pm	1:45 - 5:30 pm	8:30 am - 12:15 pm	8:30 am - 12:15 pm	
■	Reception					7 - 10 pm	
■	Roundtables		10:30 am - 12:15 pm	3:45 - 5:30 pm	3:45 - 5:30 pm	1:45 - 5:30 pm	
■	Talks		8:30 - 10:15 am 3:45 - 5:30 pm	8:30 am - 3:30 pm	10:30 am - 5:30 pm	1:45 - 5:30 pm	10:30 am - 5:30 pm
■	Technical Papers			8:30 am - 5:30 pm	8:30 am - 6 pm	8:30 am - 6 pm	8:30 am - 5:30 pm
■ ●	Art & Design Galleries						
	Design & Computation		8:30 am - 6 pm	9 am - 7 pm	9 am - 6 pm	9 am - 6 pm	9 am - 2 pm
	Slow Art		8:30 am - 6 pm	9 am - 7 pm	9 am - 6 pm	9 am - 6 pm	9 am - 2 pm
■ ●	FJORG!		9 am - Midnight	12:01 am - 5 pm			
■ ●	International Resources		8:30 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 6 pm	8 am - 4 pm
■ ●	New Tech Demos		8:30 am - 6 pm	9 am - 7 pm	9 am - 6 pm	9 am - 6 pm	9 am - 2 pm
■ ●	Posters		8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - Noon
■ ●	The Studio		1 - 6 pm	Noon - 11 pm	Noon - 11 pm	9 am - 6 pm	9 am - 2 pm
■ ▲	Computer Animation Festival						
	Festival Talks		8:30 am - 12:15 pm 3:45 - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	8:30 am - 5:30 pm	
	Stereoscopic 3D: Research, Applications, and Entertainment		8:30 am - 7:45 pm	8:30 am - 5:30 pm			
	Production Sessions		10:30 am - 12:15 pm 3:45 - 5:30 pm		1:45 - 3:30 pm	10:30 am - 12:15 pm	
	Invited Screenings			12:30 - 11 pm	10:30 am - 11 pm	10:30 am - 11 pm	10:30 am - 3 pm
	Competition Screenings			1:45 & 5:45 pm	10:30 am & 5:45 pm	10:30 am & 5:45 pm	10:30 am
	Production Studio Nights			8 - 11 pm	8 - 11 pm	8 - 11 pm	
	Festival Awards Ceremony					3:45 pm	
■ ● ▲	Birds of a Feather	Throughout the week					
■ ● ▲	Exhibition			9:30 am - 6 pm	9:30 am - 6 pm	9:30 am - 3:30 pm	
■ ● ▲	Exhibitor Tech Talks			9:30 am - 6 pm	9:30 am - 6 pm	9:30 am - 3:30 pm	
■ ● ▲	Featured Speakers		1:30 - 3 pm	1:30 - 3 pm		1:45 - 3 pm	
■ ● ▲	Job Fair			10 am - 4 pm	10 am - 4 pm	10 am - 1 pm	
■ ● ▲	Special Events						
	SpeedLab		3:45 - 5:30 pm				1:45 - 3:30 pm
	Fast-Forward Technical Papers Preview Session		6 - 8 pm				
	FJORG! Viking Judging Ceremony				6:30 - 8:30 pm		
	The Anti-Auteurs: User-Generated Content and the Evolving Videogame Ecosystem			6 - 8 pm			
	Winners of the ACM Student Research Competition						10:30 am - 12:15 pm

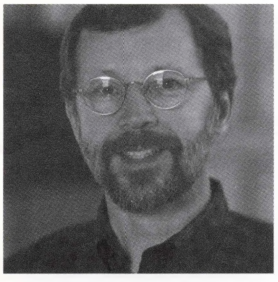
One-Day registration includes access for one day to conference programs and events associated with that level of registration and all days of the Exhibition. One-Day access does not include technical documentation or tickets for the Reception.

Conference Registration Categories

- ■ Full Conference Access
- ● Basic Access
- ▲ Computer Animation Festival

Conference Overview

See, hear, and interact with digital innovators, creative researchers, award-winning producers, provocative artists, energetic executives, and adventurous engineers. Make the connections and acquire the knowledge you need to lead the international computer graphics and interactive techniques community to the next generation of digital power.



ED CATMULL
President, Walt Disney and Pixar Animation Studios
FOUR-TIME ACADEMY AWARD WINNER

Monday, 11 August, 1:30 - 3 pm
Managing the Creative Environment

Since the late 1970s, Ed Catmull, a pioneer in the entertainment and film industry and co-founder of Pixar Animation Studios, Ed Catmull played a major role in the invention of some of the most fundamental computer graphics practices used throughout the motion picture industry. He is one of the original architects of the RenderMan rendering software system, used to create some of the world's best known animated hits, including "Toy Story" and "Finding Nemo." And he has founded three of the world's most renowned computer graphics research centers, including the computer graphics laboratory at the New York Institute of Technology and the computer division of both Lucasfilm, Ltd. and Pixar Animation Studios.

Book Signing

Monday, 11 August, 4 - 5 pm
Bookstore, Room 508
Ed Catmull signs copies of *"To Infinity and Beyond: The Story of Pixar Animation Studios."*

CATHERINE OWENS
Artist/Director
CO-DIRECTOR, "U2 3D"

Tuesday, 12 August, 1:30 - 3 pm
Giving Technology Emotion: From the Artist's Mind to "U2 3D"

Irish artist/director Catherine Owens creates installations that evolve through painting, sculpture, photography, sound, and video. She is well known for her collaboration with the Irish band U2 on their last four world tours. She co-directed "U2 3D," a documentary of the band's live performance in South America on their 2006 Vertigo tour. "U2 3D" is the first live-action feature-length 3D digital theatrical release. In 2005, she directed U2's "Original Of The Species" video, which explored CG motion capture technology. She has also created and directed visual content and animation for the San Francisco-based group Kronos Quartet and for the Chinese Pipa player Wu Man. Owens is currently working on a new body of drawings and creating content for the next U2 album and tour.

TAKEO KANADE
Professor of Computer Science and Robotics, and Director of the Quality of Life Technology Engineering Research Center, Carnegie Mellon University
ROBOTICS VISIONARY

Thursday, 14 August, 1:45 - 3 pm
My Personal Take on the Last 30 Years in Robotics and Vision

Takeo Kanade works in many aspects of robotic science: computer vision, multimedia, manipulators, autonomous mobile robots, medical robotics, and sensors. He has written more than 250 technical papers and reports in these areas, and holds more than 15 patents. He has been the principal investigator of more than a dozen major vision and robotics projects at Carnegie Mellon. He is also the director of the Digital Human Research Center in Tokyo. He has received many awards, including the Franklin Institute Bower Prize, the IEEE Robotics and Automation Society Pioneer Award, and the Japan Society of Artificial Intelligence Career Accomplishment Award.

➡ **PRECEDING ED CATMULL'S TALK:**
ACM SIGGRAPH presents the following awards for significant achievements in the field:

ACM SIGGRAPH
Significant New Researcher Award
Maneesh Agrawala
University of California, Berkeley

ACM SIGGRAPH
Computer Graphics Achievement Award
Ken Perlin
New York University

ACM SIGGRAPH
Outstanding Service Award
Stephen Spencer
University of Washington

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- ▲ Computer Animation Festival

Presenting sessions, art, and animations in six broad themes:

SIGGRAPH Core
The most recent work from the crossroads of science, art, and technology that celebrates the best in creativity and innovation.

Complexity and Accessibility
Managing large datasets, visualizing complexity, and presenting data on mobile devices and distributed displays.

Global Responsibility
How the social, economic, political, and environmental climate affects our lives and work, and vice versa.

Professional Development & Education
Sessions and events that provide valuable information and inspiration for attendees interested in creating a fulfilling future.

Future History
Understanding and celebrating our past as we define the future of computer graphics and interactive techniques.

Impact on Society
Positive and negative aspects of the symbiosis between technology and society.

■●

Art & Design Galleries

Monday - Friday, 11 - 15 August

Design & Computation
Hall H
Explore digital fabrication technologies as well as analytical and generative design methods that connect the past and future, bridging vernacular with contemporary examples.

Complete list of Design & Computation, pages 90 - 92.

Slow Art
Hall H
"Speed" typically evokes concepts of rapidity, stimulation, acceleration, and change. In this gallery, new-media artists reimagine speed through the paradigm of "slowness."

Complete list of Slow Art, pages 93 - 95.

■●▲

Birds of a Feather

Monday - Friday, 11 - 15 August
Rooms 307, 501 A , 507, 511 A

Presentations, discussions, and demonstrations for people who share interests, goals, technologies, environments, or backgrounds. Birds of a Feather events are open to all SIGGRAPH 2008 attendees.

Listings of Birds of a Feather contacts, page 97.

■

Classes

Monday - Friday, 11 - 15 August
Rooms 403 AB, 406 AB, 408 AB, 411, 502 A, 502 B, 515 A, and Hall B

Learn how to use today's and tomorrow's digital technologies to advance your personal knowledge and professional value. Classes deliver unique learning opportunities, available only at SIGGRAPH 2008, in three levels of difficulty (beginning, intermediate, and advanced).

Complete list of Classes, pages 14 - 31.

■ ▲

Computer Animation Festival

Monday - Friday, 11 - 15 August
Petree Hall C and D; Nokia Theatre

Experience the full spectrum of animation and visual effects. SIGGRAPH 2008's newly expanded Computer Animation Festival features five days of screenings, four days of talks, three production studio nights, and two days of 3D stereoscopic panels and screenings. In addition to the always-popular juried screening, the festival offers a full spectrum of work from around the world.

Complete offerings and schedule for Computer Animation Festival, pages 63 - 80.

■●▲

Exhibition

Tuesday - Thursday, 12 - 14 August
South Hall

SIGGRAPH 2008 hosts the year's largest, most comprehensive exhibition of products and services for the computer graphics and interactive techniques marketplace, featuring the industry's established leaders and emerging challengers. Get up-close and hands-on with the newest hardware systems, software tools, and creative services from hundreds of companies. Explore the products, systems, techniques, ideas, and inspiration that are creating the next three generations of computer graphics and interactive techniques.

Complete list of the Exhibition, pages 108 - 109.

■●▲

Exhibitor Tech Talks

Tuesday - Thursday, 12 - 14 August
Hall G

Get the inside story direct from the developers of tomorrow's hot hardware, software, and systems. Join question-and-answer exchanges and one-on-one conversations with the presenters after each presentation.

Complete list of Exhibitor Tech Talks, pages 102 - 104.

Conference Registration Categories

- ■ Full Conference Access
- ● Basic Access
- ▲ Computer Animation Festival

■●

FJORG!

Monday - Tuesday, 11 - 12 August
Room 150 and 151

Sixteen three-person teams of CG animators from around the world forgo sleep and resist several staged distractions for 32 non-stop hours to produce the best character-driven animation in the universe.

For a list of the FJORG! teams, see page 89.

■

Geek Bar

Monday - Friday, 11 - 15 August
Concourse Foyer; Across from Room 153

Real-time human networking. Streaming content from the SIGGRAPH 2008 session rooms. Wireless access. Comfy chairs. And refreshing beverages (cash bar).

■

Informal Forums

Tuesday, 12 August and Thursday, 14 August
Room 505 and 502A

Exchange insights and information on every aspect of computer graphics and interactive techniques.

Complete list of Informal Forums:, pages 44 - 45.

■●

International Resources

Monday - Friday, 11 - 15 August
Hall H

Learn how the industry is evolving worldwide and collaborate with attendees from five continents. The International Center offers bilingual tours of SIGGRAPH 2008 programs, informal translation services, and space for meetings, talks, and demonstrations. Throughout the year, the International Resources program facilitates worldwide collaboration in the SIGGRAPH community, provides an English Review Service to help submitters whose first language is not English, and encourages participation in all conference venues, activities, and events.

For a list of International Resources events, see page 98 - 99.

■●▲

Job Fair

Tuesday - Thursday, 12 - 14 August
Hall K

The SIGGRAPH 2008 Job Fair is absolutely the best place at the conference for companies and jobseekers to meet! Over 60 studios from around the globe and close to 5,000 creative professionals will participate in this event over three days. Also, employers and jobseekers will be able to connect before the conference via the CreativeHeads.net Job Board Network and candidate profiling system, during the conference via the Job Fair, and after the conference via the same CreativeHeads.net posting and profiling system.

This year's Job Fair has a number of enhancements to provide a more comprehensive career experience for all attendees, whether they are actively or passively looking for that "right" job. These include: classes on career development, sessions on CG and interactive techniques, tips for improvement from industry veterans, and a networking lounge area.

The Job Fair is open to all SIGGRAPH 2008 attendees at no additional cost.

Job fair Participants (as of 2 July)

Apple Inc., Cupertino, California
Booth 49

Blizzard Entertainment, Irvine, California
Booths 51 & 52

Blue Castle Games, Burnaby, British Columbia
Booths 32 & 33

CreativeHeads.net, Hermosa Beach, California
Booth 47

Double Negative Visual Effects, London, England
Booth 23

Eidos/Crystal Dynamics, Menlo Park, California
Booth 48

ESPN, Inc., Bristol, Connecticut
Booth 13

Gnomon, Inc., Hollywood, California
Booth 22

The Guildhall at SMU, Plano, Texas
Booth 38

High Voltage Software, Hoffman Estates, Illinois
Booth 14

Image Engine, Vancouver, British Columbia
Booth 21

Insomniac Games, Burbank, California
Booth 20

Intel Corporation, Santa Clara, California
Booth 5 & 6

International Game Technology (IGT), Reno, Nevada
Booth 45

Media Development Authority Singapore (MDA)
Booths 7 & 8

MediaTek USA, Inc., San Jose, California
Booth 2

Microsoft Game Studios, Redmond, Washington
Booth 46

Midway Amusement Games, Chicago, Illinois
Booth 28

The Mill, London, England
Booth 36

Nickelodeon Animation Studio, Santa Monica, California
Booth 1

NVIDIA Corporation, Santa Clara, California
Booth 26

OLM Digital, Inc., Tokyo, Japan
Booth 35

Obsidian Entertainment, Santa Ana, California
Booth 43

OmniMedia Lab, Sydney, Australia
Booth 25

The Orphanage, San Francisco, California
Booth 30

Qualcomm, San Diego, California
Booth 50

RTT, Pasadena, California
Booth 27

Secret Level (Sega), San Francisco, California
Booth 34

Sony Pictures Imageworks, Culver City, California
Booth 24

Starz Animation, Toronto, Canada
Booth 21

Ubisoft, San Francisco, California
Booths 15 & 16

Vicious Cycle Software, Folsom, California
Booth 53

Virtual Heroes, Inc., Research Triangle Park, North Carolina
Booth 24

■●

New Tech Demos

Monday - Friday, 11 - 15 August
Hall G, Hall H, Hall K Entrance, and South Lobby

Interact with the latest systems before they become the hot topics in mainstream media and techno blogs. New Tech Demos presents innovative technologies and applications in many fields, including displays, robotics, input devices, interaction techniques,

Complete list of New Tech Demos, pages 81 - 88.

One-Day registration includes access for one day to conference programs and events associated with that level of registration and all days of the Exhibition. One-Day access does not include technical documentation or tickets for the Reception.

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- ● Basic Access
- ▲ Computer Animation Festival

■

Panels and Roundtables

Monday - Thursday, 11 - 14 August

Panels: Rooms 403 AB, 406 AB, 408 AB, 411, 502 B
Roundtables: Room 406 AB, 411, 505

Expert insights and informal exchanges on the evolution of digital media.

For a complete list of Panels: pages 46 - 47.
For a complete list of Roundtables: pages 48 - 49.

■●

Posters

Monday - Friday, 11 - 15 August

Located Outside of Room 103, 403, 404, 406, 408, 409, 411 and West Tower Lobby

Browse their breakthroughs then talk with the researchers who are leading the evolution of computer graphics and interactive techniques. Posters are displayed throughout the conference week, and presenters discuss their work in scheduled sessions.

Complete list of Posters: pages 58 - 62.

■

Reception

Thursday, 14 August, 7-10 pm

Dodger Stadium

Social and intellectual interaction with the movers and shakers of the international SIGGRAPH community. Plus real-world, undigitized baseball, at one of the nation's most famous ball parks: the Los Angeles Dodgers vs. the Philadelphia Phillies. Enjoy the game and touch base with the people you need to know for another year of professional success and adventure. Added bonus: 10% discount off on all Dodgers merchandise purchased during the reception.

■

Talks

Monday - Friday, 11 - 15 August

Rooms 403 AB, 406 AB, 502 A, 502 B, 515 A and Hall B

Speculative breakthroughs, work in progress, and recent achievements. Listen to the experts who use computer graphics and interactive techniques in art, cinema, advertising, design, science, and engineering. Then join the post-talk discussion.

Complete list of Talks, pages 50 - 57.

■

Technical Papers

Tuesday - Friday, 12 - 15 August

Room 403 AB, 408 AB, 502 B, and Hall B

Your only annual opportunity to hear the world's most advanced scientists and engineers in this rapidly evolving field. No other conference presents the full range of the world's most significant achievements in the field and illuminates new directions for future investigations.

Complete list of Technical Papers, pages 32 - 43.

■●

The Studio

Monday - Friday, 11 - 15 August

Hall H

Powerful workstations, versatile software, artists, scientists, engineers, and you, collaborating to realize your most creative concepts.

For additional information on The Studio, see page 96.

■●▲

Special Events

Sessions of special interest to specific segments of the SIGGRAPH community.

SpeedLab

Monday, 11 August & Friday, 15 August

Small teams of creative, broadly multi-disciplinary people work throughout the week to create imaginative solutions to a variety of important problems. Their work is presented at the end of the week to the public and a panel of distinguished judges. We welcome participants of all backgrounds and skill levels who are open to meeting and working with other people.

Team Creation and Problem Selection

Monday, 11 August, 3:45 - 5:30 pm
Room 505

Final Judging for Fun & Prizes

Friday, 15 August, 1:45 - 3:30 pm
Room 411

If you have questions, contact:
Marie-Paule Cani, INRIA
speedlab2008@siggraph.org

Fast-Forward Technical Papers Preview

Monday, 11 August, 6 - 8 pm
Hall B

The world's leading experts in computer graphics and interactive techniques preview their latest work in provocative, sometimes hilarious summaries of the field's evolution.

The Anti-Auteurs: User-Generated Content and the Evolving Videogame Ecosystem

Tuesday, 12 August, 6 - 8 pm
Hall B

Though the videogame world is one expression of specialized creative talent, the landscape is changing. Major game companies are releasing titles that allow game players to literally take over the creative process, transforming game designers into tool and system designers, and users into true content creators.

This panel of pioneers explores games and user-generated content from three broad perspectives: design challenges and game-play mechanics, production and technical implementation, and business and legal implications.

Moderator
Jason Della Rocca
International Game Developers Association

Panelists
Alex Evans
Media Molecule

David Heeley
inXile Entertainment

Daniel James
Three Rings Design

FJORG! Viking Judging Ceremony

Wednesday, 13 August, 6:30 - 8:30 pm
Hall B

Celebrity judges from the animation industry present the winner of the second annual SIGGRAPH "iron animator" competition. The session includes video highlights of the event and the animations produced by the FJORG! finalists.

ACM Student Research Competition Presentations

Friday, 15 August, 10:30 am - 12:15 pm
Room 406 AB

Winners of the ACM Student Research Competition at SIGGRAPH 2008 present brief summaries of the work they are displaying in the Posters program.

Inquiries about co-locating events with the annual SIGGRAPH conference should be directed to:

Scott Lang
Bergen County Academies
scott@siggraph.org

Co-Located Workshops and Events

Presented in cooperation with ACM SIGGRAPH, these small symposia are related to important aspects of computer graphics and interactive techniques. For registration information: www.siggraph.org/s2008/attendees/registration/

www.procams2008.org

5th International Workshop on Projector-Camera Systems

Sunday, 10 August
Marina Del Rey Hotel

The PROCAMS workshop series is an annual gathering place for researchers and practitioners who use, build, and design projector-camera systems for a wide variety of applications and purposes. The workshop includes papers, posters, and demos on all topics relating to projector-camera systems.

www.sci.utah.edu/rto8

IEEE/EG Symposium on Interactive Ray Tracing

Saturday, 9 August & Sunday, 10 August
Los Angeles Convention Center

RT08, the third in a successful series of symposia, provides a dedicated forum for presentation and discussion of the latest developments in interactive and real-time ray tracing research.

www.web3d.org/conferences/web3d2008

Web 3D 2008 Symposium

Saturday, 9 August & Sunday, 10 August
Los Angeles Convention Center

Web3D 2008 is the 13th international symposium on a wide range of topics covering 3D hypermedia on the web. Attendees share and explore methods of using, enhancing, or creating new 3D web and multimedia technologies, such as (but not limited to) X3D, VRML, COLLADA, Croquet, MPEG4, MPEG7, Java3D, and Canvas3D. The symposium also explores recent trends such as interactive 3D graphics and applications on mobile devices.

www.edt2008.org

EDT-IPT 2008 Emerging Display Technologies and Immersive Projection Technologies

Saturday, 9 August & Sunday, 10 August
Los Angeles Convention Center

EDT IPT 2008 is the fourth in a series of EDT workshops dedicated to new and innovative display technologies and the 11th in a series of IPT workshops dedicated to immersive projection. This two-day workshop provides an opportunity to expand approaches to using contemporary display devices in virtual reality systems and applications.

www.apgv.org

Symposium on Applied Perception in Graphics and Visualization

Saturday, 9 August & Sunday, 10 August
Los Angeles Marriott Downtown

Since 2004, this symposium has brought together researchers from the fields of perception, graphics, and visualization to facilitate a wider exchange of ideas on how to use insights from perception to advance the design of methods for visual, auditory, and haptic representation, and to use computer graphics to enable perceptual research that would otherwise not be possible.

sandbox.siggraph.org/about.html

Sandbox: An ACM SIGGRAPH Videogame Symposium

Saturday, 9 August & Sunday, 10 August
Los Angeles Convention Center

The third annual Sandbox symposium includes keynotes, panels, papers, and a videogames session that previews unreleased titles from major game companies and independent developers. Video games are a singular technological medium, comparable in cultural impact to the telephone, television, or the Internet. Sandbox explores such questions as: What are the creative, technological, and commercial challenges facing this medium today and in the future? How do we relate engaging stories and worlds that leverage advances in technology?

http://www.zib.de/vg08/pbg-vg.html

IEEE/EG Symposium on Volume and Point-Based Graphics

Sunday, 10 August & Monday, 11 August
Los Angeles Convention Center

The 5th IEEE/EG Symposium on Point-Based Graphics (PBG'08) and the 7th IEEE/EG International Symposium on Volume Graphics (VG'08) brings together researchers from both the academic and industry who are working, or wish to work, on point-based graphics or volume graphics.

SIGGRAPH 2008 and the Los Angeles Convention Center provide all the support and convenience you need for a successful conference experience.

General Information

Accessibility
The convention center is handicap accessible. If you have special needs or requirements, please call Conference Management at:

+1.213.743.6214

Age Requirement Policies
- Registered attendees under the age of 16 must be accompanied by an adult at all times.
- Children under 16 are not permitted in the Exhibition. Age verification is required.

Airport Shuttle Transportation

+1.310.222.5500 x 2

SuperShuttle offers ground transportation services from the Los Angeles airport to all destinations in the Los Angeles counties. SIGGRAPH 2008 attendees can purchase one-way SuperShuttle tickets for $14. (includes $2 discount). For optimum convenience when you depart, bring your luggage with you to the Convention Center, check it with Bags Inc. for a charge, and then ride with SuperShuttle back to the Los Angeles airport.

Airport Shuttle Transportation Desk
South Lobby

Thursday - Friday, 14 - 15 August
9 am - 6:30 pm

Airline Check-In Desk (Bags Inc.)
Front of Hall A

Thursday - Friday, 14 - 15 August
7:30 am - 2 pm

Automated Teller Machines (ATMs)
There are several ATMs located throughout the lobbies of the Los Angeles Convention Center.

Baggage Check
Front of Hall A

Baggage check service is available for briefcases, backpacks, and other small items during the hours listed below. SIGGRAPH 2008 is not responsible for items left in the Baggage Check area.

Monday, 11 August
7:30 am - 8:30 pm

Tuesday - Thursday, 12 - 14 August
7:30 am - 11:30 pm

Friday, 15 August
7:30 am - 6:30 pm

Banks/Currency Exchange
The closest banks and currency exchanges to the Los Angeles Convention Center are Foreign Exchange located at 506 South Grand Avenue (+1.213.627.5404) and United Commercial Bank at 767 North Hill Street (+1.213.680.2510, call first regarding your banking needs).

Bookstore
Room 508

BreakPoint Books offers the latest and greatest books, CDs, and DVDs on computer animation, graphic design, gaming, 3D graphics, modeling, and digital artistry. The bookstore features recent books by SIGGRAPH 2008 speakers and award winners.

Monday, 11 August
8 am - 7 pm

Tuesday - Friday, 12 - 15 August
8 am - 6 pm

Note: Bookstore refunds will only be processed during the conference. All bookstore policies are those of BreakPoint Books and not SIGGRAPH 2008.

Business Center
Concourse between South and West Hall

+1.213.741.1151 x 5471

The Business Center offers the following services: faxing, copying, shipping, office supplies, internet access, color printing, phone cards, boarding pass printing, and computer workstation rental.

Sunday - Friday, 10 - 15 August
9 am - 5 pm

Busing
See Shuttle Services.

Camera/Recording Policies
- No cameras or recording devices are permitted at SIGGRAPH 2008. Abuse of this policy will result in revocation of the individual's registration credentials.
- SIGGRAPH 2008 employs a professional photographer and reserves the right to use all images that this photographer takes during the conference for publication and promotion of future ACM SIGGRAPH events.

Child Care
Child Care will not be provided at SIGGRAPH 2008. Contact your hotel concierge for suggestions.

Computer Animation Festival Passes
For SIGGRAPH 2008, the festival has adopted a new format. Five days of screenings, four days of talks, three production studio nights and two days of 3D stereoscopic talks and screenings.

Access
Computer Animation Festival access is included with a Full Conference Access and the Festival Pass.

If you attended the Animation Theater or Electronic Theater in the past, you can add the week-long Computer Animation Festival to your Basic Access registration at a discounted price, or you can add the Festival to a Basic Access One-Day registration.

Registration
Registration is located in Hall G, see page 12, but if you are only purchasing a Computer Animation Festival Pass, a satellite registration area is located in Hall A, for this purpose, hours are:

Monday, 11 August
8 am - 6:30 pm

Tuesday - Thursday, 12 - 14 August
8 am - 8:30 pm

Special Policies
- The Nokia Theatre requires attendees to pass through metal detectors. You may want to check your luggage at the baggage check area in front of Hall A before going to the Computer Animation Festival.
- The Nokia Theatre does not allow food or drinks in the theatre, but provides a full concession area, including alcoholic beverages.

Conference Management Office
Room 304

+1.213.743.6214

If you have questions regarding SIGGRAPH 2008, call or stop by this office anytime during conference hours.

Conference Policies

- Passes: To be admitted to the Reception, you must have a ticket (your registration badge does not provide access). Computer Animation Festival access is included with Full Conference Access and the Festival Pass.
- Children under 16 are not permitted in the Exhibition. Age verification is required.
- Registered attendees under the age of 16 must be accompanied by an adult at all times.
- SIGGRAPH 2008 reserves the right to deny registration or entrance to any attendee or prospective attendee, and to cancel an existing registration, if it determines that a registration or an attendee is not in the best interest of SIGGRAPH 2008 or ACM SIGGRAPH.
- Lost badges cannot be replaced. If you lose your badge, you must register again at the published rates to obtain a new badge.
- No cameras or recording devices are permitted at SIGGRAPH 2008. Abuse of this policy will result in revocation of the individual's registration credentials.
- SIGGRAPH 2008 employs a professional photographer and reserves the right to use all images that this photographer takes during the conference for publication and promotion of future ACM SIGGRAPH events.
- SIGGRAPH 2008 conference documentation and pre-purchased merchandise will not be shipped, nor will refunds be given for any material that is not picked up at the Merchandise Pickup Center.

Exhibition Management Office

Room 303

+1.213.743.6221

Exhibition Management representatives are available during conference hours to meet with exhibitors and help with plans for exhibiting at SIGGRAPH 2008 and SIGGRAPH 2009.

Exhibitor Registration

Hall G

Open during registration hours. See Registration.

First Aid Office

South Hall and West Hall

Nurses and paramedics are on duty:

South Hall

Sunday, 10 August	8 am - 7 pm
Monday, 11 August	8 am - 8 pm
Tuesday, 12 August	8 am - 7 pm
Wednesday, 13 August	8 am - 6 pm
Thursday, 14 August	8 am - 6 pm
Friday, 15 August	8 am - 6 pm

West Hall

Wednesday - Friday, 13 - 15 August
10 am - 9 pm

Flight Check-In & Baggage Check at the Convention Center

Hall A

Thursday - Friday, 14 - 15 August

Avoid airport lines. Check-in for domestic flights from Los Angeles International Airport and check baggage at the convention center. This service is available for domestic flights only: Air Tran, Alaska, American, Continental, Delta, Northwest, United.

Sign up for service at:
https://onvoy.arincmuse.net/rps/
(event ID: 15022 password: siggraph).

Fees

$10 in advance, $15 day of departure.

Food Services

The Los Angeles Convention Center operates several snack stands, food carts and restaurants throughout the convention center.

Compass Café (South Hall)

Sunday, 10 August
9 am - 6 pm

Monday, 11 August
7:30 am - 5 pm

Tuesday - Friday, 12-15 August
8 am - 6:30 pm

Galaxy Café Food Court (West Hall)

Monday, 11 August
7:30 am - 6 pm

Tuesday - Friday, 12 - 15 August
8 am - 6 pm

Housing Desk

Hall G

+1.213.743.6223

Complete information about SIGGRAPH 2008 hotel accommodations. Open during registration hours (except Friday, 15 August, when it will close at noon). See Registration.

Information and Restaurant Desk

West Hall +1.213.765.4543

South Hall +1.213.765.4546

General conference information and Los Angeles restaurant reservations.

Sunday, 10 August
1 - 7 pm

Monday, 11 August
7:30 am - 6 pm

Tuesday - Thursday, 12 - 14 August
8 am - 6 pm

Friday, 15 August
8 am - 3:30 pm

International Center

Hall H

The SIGGRAPH 2008 International Committee and a multi-lingual staff of student volunteers answer questions, offer suggestions, provide informal translation services, and make connections with international attendees.

Monday, 11 August
8:30 am - 6 pm

Tuesday - Thursday, 12 - 14 August
8 am - 6 pm

Friday, 15 August
8 am - 4 pm

Internet Access

Free wireless access will be available for SIGGRAPH 2008 attendees throughout the Los Angeles Convention Center. SIGGRAPH 2008 will not be providing public workstations for Internet access, but, there will be limited Internet access in the Business Center.

Wireless Internet Access

SIGGRAPH 2008 provides 802.11 a/b/g wireless network access in most areas of the Los Angeles Convention Center. To use the wireless network, attendees should have their own wireless (802.11a, b, or g compatible) cards.

Please refer to your laptop operating system and client adapter documentation and follow this procedure:

1. Document all existing TCP/IP and wireless configuration information before you make any changes.
2. Configure your laptop to use DHCP.
3. Configure your wireless adapter Network Name (SSID) to be "s2008".
4. Disable encryption on your wireless adapter.

The SIGGRAPH 2008 wireless network provides open, unencrypted communications for conference attendees. The system is not secure and can be monitored by others.

Lost and Found

Hall G

To inquire about lost items during and after the conference, go to the Lost & Found desk in Hall G. All lost items (including badges) should be turned into this location where they will be logged and stored until the conclusion of the conference. After the conference, all lost-and-found items will be turned over to the Los Angeles Convention Center Security Office.

Merchandise Pickup Center
South Lobby

Your conference documentation (included with registration) must be picked up at the Merchandise Pickup Center. Conference documentation and pre-purchased merchandise will not be shipped, nor will refunds be given for any material that is not picked up at the Merchandise Pickup Center. Open during registration hours. See Registration.

Parking
Los Angeles Convention Center – West and South Halls

+1.213.741.1151 x 5850

SIGGRAPH 2008 attendees can park at the Los Angeles Convention Center parking lot for $12 per day. There are no in/out privileges.

South Hall
Sunday - Friday, 10 - 15 August
6 am - 9 pm*

West Hall
Sunday - Friday, 10-15 August
6 am - 9 pm*

** The closing times noted above are when access to the parking garages in South and West Halls will cease. Exiting the parking garages will be available for an hour after the last official SIGGRAPH 2008 event at the Los Angeles Convention Center. Parking is available at Nokia Theatre for the late-night screenings of the Computer Animation Festival.*

There are also several other parking lots available near the Los Angeles Convention Center:

GSD City of Los Angeles
North East Corner of Pico and Figueroa Streets

Prestige Parking
North West Corner of Pico and Flower Streets

Valet Parking Services
East Side, Figueroa Between Pico and Venice Streets

Staples Center
South East Corner 12th/Figueroa Streets

Reception Tickets
Hall G

Reception tickets are available at the Ticket Exchange Booth. The cost is $55 per person. All sales are final.

Registration
Hall G

Sunday, 10 August	1 - 7 pm
Monday, 11 August	7:30 am - 6 pm
Tuesday, 12 August	8 am - 6 pm
Wednesday, 13 August	8 am - 6 pm
Thursday, 14 August	8 am - 6 pm
Friday, 15 August	8 am - 3:30 pm

Shuttle Service
+1.410.507.0971

SIGGRAPH 2008 provides complimentary shuttle service between most conference hotels and the Los Angeles Convention Center. Look for signs and shuttle flyers with specific shuttle details for all events in conference hotel lobbies and the information desk at the Los Angeles Convention Center.

If you have any shuttle-related questions, please contact the shuttle service desk during official shuttle hours. For assistance with handicap service, please call +1.410.507.0971. SIGGRAPH 2008 provides shuttles with wheel chair lifts and tiedowns.

IMPORTANT NOTICE
The SIGGRAPH 2008 shuttle service is available only to attendees who registered at official conference hotels through the SIGGRAPH 2008 hotel reservation system. Those attendees will receive a wristband upon check-in that allows them to board the shuttle buses. Attendees who are not registered at official conference hotels will be allowed to purchase wristbands for $75 at the SIGGRAPH Store. Attendees without wristbands will not be allowed to use the shuttle service.

All badged attendees will be able to ride the shuttle buses to Dodgers Stadium for the reception. Wristbands will not be required.

Hotel Shuttle Service Hours

Sunday, 10 August	12:30 - 7:30 pm
Monday, 11 August	7 am - 10:30 pm
Tuesday, 12 August	7:30 am - 11:30 pm
Wednesday, 13 August	7:30 am - 11:30 pm
Thursday, 14 August	7:30 am - 11:30 pm
Friday, 15 August	7:30 am - 6:30 pm

Hotel shuttle service will pick-up and drop-off attendees outside West Hall of the Los Angeles Convention Center.

Shuttles for Reception at Dodger Stadium
Shuttles begin transporting from hotels and the Los Angeles Convention Center starting at 5:30 pm. The last shuttle will depart from the hotels and Los Angeles Convention Center to Dodger Stadium at approximately 9 pm. The last shuttle from Dodgers Stadium will depart at 11 pm.

Driving Directions to Dodger Stadium
Enter through the Academy Gate (Academy Drive). This is the closest general parking lot for the reception. When you leave the stadium you will be required to exit via the same parking gate that you entered. You can get to all freeways from all parking gate exits.

SIGGRAPH Encore Conference Presentations DVD-ROM
Hall H (SIGGRAPH Village)

The SIGGRAPH Encore Conference Presentations DVD-ROM set returns in 2008! Get all of the SIGGRAPH 2008 conference presentations on a 2 disc DVD-ROM set. Watch fully synchronized presentations on your computer, or load the videos onto your iPod or iPhone! Visit the SIGGRAPH Encore booth in the SIGGRAPH Village for more information and to place your order.

SIGGRAPH Store & SIGGRAPH Boutique
South Lobby & West Tower Lobby

Review and purchase additional technical materials, conference documentation, and gifts (t-shirts, polo shirts, caps, and coffee mugs) for friends, family, and colleagues. SIGGRAPH 2008 merchandise is available on a first-come, first-served basis in the SIGGRAPH Store (South Lobby) or SIGGRAPH Boutique (West Tower Lobby).

Sunday, 10 August
1 - 7 pm

Monday, 11 August
7:30 am - 6 pm

Tuesday, 12 August - Thursday, 15 August
8 am - 6 pm

Note: The Boutique will be closed on Sunday.

Special Assistance Desk
Hall G

Assistance with a wide range of problems and concerns, including:
- Credit card problems (validations, errors)
- Lost badges (Note: Lost badges cannot be replaced. If you lose your badge, you must register again at the published rates to obtain a new badge.)
- Registration corrections and upgrades
- Substitute registration (only if authorized on company letterhead)

Speaker Prep Room
Room 518

Pick up your registration credentials and conference information. Then go to the Speaker Prep Room to collect your Speaker Ribbons and badge holder.

If you're presenting at the conference, you should check in with Speaker Prep at least 24 hours before your session to review your materials, practice your presentations, and test the playback of your animations. It's the best place to make sure that you'll have everything you need for your session.

Sunday, 10 August
9 am - 7 pm

Monday - Thursday, 11 - 14 August
7 am - 7 pm

Friday, 15 August
7 am - 2 pm

Technical Materials
Technical materials included with your registration must be picked up at the SIGGRAPH 2008 Merchandise Pickup Center. Lost merchandise vouchers will not be replaced.

Technical Material Sold After the Conference

Full Conference DVD-ROM
This digital publication contains the electronic version of the Technical Papers, including images, and supplemental material; all of the class and tutorial notes, including supplemental material (movies, source code, HTML presentations); and the permanent record of the Classes, New Tech Demos, Panels, Posters, and the permanent record of the Art & Design Galleries and the Computer Animation Festival.

ACM Transactions on Graphics
(Conference Proceedings Special Issue) – Printed
Contains the SIGGRAPH 2008 Technical Papers and the ACM SIGGRAPH awards. This can be purchased at the time of registration, or it may be purchased individually at the conference.

Electronic Art & Animation Catalog - Printed
Contains the permanent record of images from the Art & Design Galleries and the Computer Animation Festival.

SIGGRAPH 2008 Video Review
Contains animations presented in the Computer Animation Festival. To order these materials after the conference, contact:

ACM, Member Services
800.342.6626
(Continental US and Canada)

+1.212.626.0500
(International and New York Metro area)

+1.212.944.1318 fax

orders@acm.org

Telephone Numbers

Business Center
+1.213.741.1151 x 5471

Conference Management Office*
+1.213.743.6214

Exhibition Management Office
+1.213.743.6221

First Aid Office
+1.213.743.6236

Housing Desk
+1.213.743.6223

Media Headquarters
+1.213.743.6225

Parking – Los Angeles Convention Center
+1.213.741.1151 x 5850

Security Office
+1.213.743.6235

Shuttle Service
+1.410.507.0971

SIGGRAPH Store
+1.213.743.6233

** For emergencies, contact Conference Management Office.*

Registration & Media Information

Conference Registration Categories

- ■ Full Conference Access
- ● Basic Access
- ▲ Computer Animation Festival

Member Rate

If you are currently an ACM or ACM SIGGRAPH member you are eligible for member discounts. You must provide your current ACM or ACM SIGGRAPH membership number to receive the discount, otherwise, you will be charged the non-member rate. Local or regional ACM SIGGRAPH memberships are not eligible for registration discounts.

Student Rate

You must be a full-time student to qualify. You must provide your 2008 ACM student membership number to qualify for student rates (this applies for those registering in advance as well as at the conference).

Failure to provide valid information will result in you being charged the non-member rate.

Note: Your badge will include your name, organization, city, state, country, and membership status as indicated on your registration form.

Registration

Location: Hall G

Sunday, 10 August	1 - 7 pm
Monday, 11 August	7:30 am - 6 pm
Tuesday, 12 August	8 am - 6 pm
Wednesday, 13 August	8 am - 6 pm
Thursday, 14 August	8 am - 6 pm
Friday, 15 August	8 am - 3:30 pm

Media Headquarters

Location: Room 302

Sunday, 10 August	5 - 7 pm
Monday, 11 August	8 am - 6 pm
Tuesday, 12 August	8 am - 6 pm
Wednesday, 13 August	8 am - 6 pm
Thursday, 14 August	9 am - 5 pm
Friday, 15 August	9 am - 4 pm

Media Registration

Media representatives must register in the Media Headquarters Office, Room 302. You must submit full and proper media credentials for a media pass. No exceptions will be made.

Media Briefing/ Exhibition Floor Tour

The official SIGGRAPH media briefing provides an update to the media on what's new and what's hot at SIGGRAPH 2008. Gain access to the exhibit floor before it opens to the attendees for a "sneak preview" of the latest products and applications.

Media Briefing

Room 501 A

Tuesday, 12 August	8 - 8:45 am

Early Exhibition Floor Access

South Hall

Tuesday, 12 August	8:45 - 9:30 am

Exhibitor Media Events

A schedule of various exhibitor media events will be available in the Media Headquarters Office in Room 302 of the Los Angeles Convention Center.

Included With Your Registration

■	Classes
■	Geek Bar
■	Informal Forums
■	Panels
■	Reception
■	Roundtables
■	Talks
■	Technical Papers
■	Full Conference DVD-ROM
■ ●	Art & Design Galleries
	Design & Computation
	Slow Art
■ ●	FJORG!
■ ●	International Resources
■ ●	Posters
■ ●	The Studio
■ ▲	Computer Animation Festival
■ ● ▲	Birds of a Feather
■ ● ▲	Exhibition
■ ● ▲	Exhibitor Tech Talks
■ ● ▲	Featured Speakers
■ ● ▲	Job Fair
■ ● ▲	Special Events

Evolving Encounters

Evolving Our Encounters: An Exploration of Our Content Through Cutting-Edge Educational Gaming Paradigms

SIGGRAPH 2008 strives to connect and engage attendees with each other and presenters to enhance conference content and enrich the attendee experience. Evolving Our Encounters partners experts in the field of educational gaming to create unique and deeper connections between presenters and attendees, and among the attendee community.

These educational gaming initiatives range from a deep dive into Classes to a more accessible, and mobile, industry-trivia challenge. For optimal user experience, bring your laptop to participate!

Game on! Explore the experience online at Encounters:

www.siggraph.org/s2008/attendees/encounters

Project Pulse

SIGGRAPH 2008 is testing some new technologies to help you navigate and understand the conference. Project Pulse includes digital signs delivering information and multimedia that's updated throughout the conference. The project also includes updates and collaboration via mobile phone and RFID technology. More details will be available throughout SIGGGRAPH 2008.

The How to Attend SIGGRAPH 2008 class is open to attendees in three registration categories: Full Conference, Basic Access, Computer Animation Festival. All other classes require Full Conference registration.

➡ Days & Hours

Monday, 11 August - Friday, 15 August
8:30 am - 5:30 pm

Classes

Learn how to use today's and tomorrow's digital technologies to advance your personal knowledge and professional value. Classes deliver unique learning opportunities, available only at SIGGRAPH 2008, in three levels of difficulty (beginning, intermediate, and advanced).

Class Notes are presented in the Full Conference DVD-ROM that Full Conference attendees receive with their registration.

Full Conference registration allows attendees access to all SIGGRAPH 2008 Classes. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Classes sessions you wish to attend.

How to Attend SIGGRAPH 2008

Monday, 8:30 - 10:15 am
Room 515 A **Level: Beginning**

The SIGGRAPH conference is an exciting event, but it is often an intimidating experience for first-time attendees. There are so many new terms, new concepts, and new products to try to understand. This leaves new attendees baffled and frustrated about how to spend their time.This class is designed to ease newcomers into the SIGGRAPH conference experience by presenting the fundamental concepts and vocabulary at a level that can be readily understood. Far from being made up of dry facts, this course also portrays the fun and excitement that led most of us here in the first place. After this class, attendees will be well-prepared to understand, appreciate, enjoy, network, and learn from the rest of the SIGGRAPH experience.

Prerequisites
None

Instructor
Mike Bailey
Oregon State University
mjb@cs.oregonstate.edu

■●▲
This class is open to attendees in three registration categories: Full Conference. Basic Access, Computer Animation Festival, and All other classes require Full Conference registration.

Schedule

8:30 am Welcome and Overview
How to Attend a SIGGRAPH

9:15 am The Graphics Process

9:30 am Graphics Hardware and GPU Programming

10 am Finding More Information
Bailey

Projectors for Graphics

Monday, 8:30 am - 12:15 pm
Room 406 AB **Level: Beginning**

Modern digital projectors are a central part of large-format displays, non-intrusive augmented reality systems, and computational illumination for 3D image-based modeling. High-speed and high-frame-rate projectors also support intriguing applications in optical communication. With a pocket-size form factor, projectors will be widely used for mobile applications. This class surveys this rapidly evolving landscape and the growing interest in experimenting with projectors. A novel class of applications is emerging, involving illumination and capture of complex 3D shapes as well as dynamic interaction via projection on movable surfaces. The class provides a detailed survey of the several approaches for combining real-time computer graphics and computer-vision methods for single and multi-projector systems. Topics include immersive rendering, projective geometry, reflectance-field capture, and spatial-augmented reality. The class also includes practical insights, implementation details, and case studies for a variety of applications in research, art, and industry.

Prerequisites
No programming or specific mathematical background is required. General knowledge of basic computer graphics techniques and 3D tools is helpful but not necessary.

Instructors
Oliver Bimber
Bauhaus-Universtat Weimar

Hendrik P. A. Lensch
MPI Informatik

Aditi Majumder
University of California, Irvine

Ramesh Raskar
Massachusetts Institute of Technology

Schedule

8:30 am Introduction and Overview
Bimber and Raskar

8:40 am Large Format Displays
Majumder

9:20 am Visually Augmenting the Real World With Projectors
Bimber

10:10 am Questions & Answers
All

10:15 am Break

10:30 am Mobile Projectors and Optical Communication
Raskar

11:15 am Computational Illumination for 3D Scene Modeling
Lensch

Noon Questions & Answers
All

High-Dynamic-Range Imaging for Artists

Monday, 8:30 am - 12:15 pm
Room 502 A

Level: Intermediate

An introduction to and overview of the practical applications and uses of high-dynamic-range imaging (HDRI) from a production point of view. Topics include: What is HDRI, and why do we need it? How do you create, manipulate, troubleshoot, and use HDRI within the photography, motion picture, and broadcast industries? Current examples of how HDRI is used in the motion picture and broadcast industries will be shown and summarized to help attendees understand overall HDRI workflows and pipelines, including pre-production, production, and post-production techniques.

Prerequisites
Familiarity with basic techniques in digital photography and/or with basic computer graphics modeling and rendering. Prior knowledge of HDRI techniques and terms, basic compositing knowledge, and familiarity with specific image-editing and 3D modeling and rendering packages are also helpful, but not required.

Instructors
Kirt Witte
Savannah College of Art and Design
kwitte@scad.edu

Christian Bloch
Eden FX

Hilmar Koch
Industrial Light & Magic

Zap Andersson
mental images GmbH

Gary M. Davis
Autodesk, Inc.

Schedule

8:30 am Introduction: Welcome and Speaker Introductions
Witte

8:40 am What is HDRI?
File Formats, Bit Depths, Raw Versus JPEG, all Radiance files are not the same
Bloch

9:10 am Shooting, Manipulating, and Implementing Chrome Balls
Witte

9:25 am HDRI Usage at EdenFX – Behind the Scenes
Bloch

9:55 am Practical Shooting Advice
Bloch and Witte

10:15 am Break

10:30 am Tonemapping Examples
Shooting & Stitching Photographic Segmental Spherical Panoramas
Witte and Bloch

10:45 am Creating CGI HDRI Spherical Panoramas Panoramic Photographic Art
Witte

11:05 am HDRI in Mental Ray, Tips & Tricks for Tweaking HDRIs
Andersson

11:25 am 32-bit Compositing: A New Compositing Paradigm
Davis

11:45 am The Reality of Dynamic Range (At ILM)
Koch

12:15 pm Questions & Answers
All

Advances in Real-Time Rendering in 3D Graphics and Games: Part 1

Monday, 8:30 am - 12:15 pm
Room 403 AB

Level: Intermediate/Advanced

Advances in real-time graphics research and the increasing power of mainstream GPUs have generated an explosion of innovative algorithms suitable for rendering complex virtual worlds at interactive rates. Every year, the latest video games display a vast variety of increasingly sophisticated algorithms that enable ground-breaking 3D rendering, push visual boundaries, and expand the interactive experience of rich environments.

This course covers a series of topics on the best practices and techniques prevalent in state-of-the-art rendering in several award-winning games and describes innovative and practical 3D rendering research that will be found in the games of tomorrow. The course features examples from recently shipped games by Crytek, Rare, and Bungie and upcoming titles from Blizzard Entertainment and MediaMolecule, as well as graphics research from AMD's Game Computing Applications Group.

Prerequisites
Working knowledge of a modern real-time graphics APIs like OpenGL or Direct3D, a solid basic understanding of commonly used graphics algorithms, and familiarity with the concepts of programmable shading and shading languages.

Instructors
Natalya Tatarchuk
Christopher Oat
AMD Corporation
natashat@bu.edu

Alex Evans
MediaMolecule

Hao Chen
Xinguo Liu
Bungie Studio

Michael Boulton
Rare/MGS

Dominic Filion
Rob McNaughton
Blizzard Entertainment

Martin Mittring
Crytek GmbH

Schedule

8:30 am Introduction
Tatarchuk

8:35 am Lighting and Material of Halo3
Chen and Liu

9:25 am Advanced Virtual Texture Topics
Mittring

10:15 am Break

10:30 am March of the Froblins: Rendering Massive Crowds of Intelligent and Detailed Creatures on GPU
Tatarchuk and Oat

11:25 am Graphics Techniques Used in LittleBigPlanet
Evans

Massive Model Visualization Techniques

Monday, 8:30 am - 12:15 pm
Room 502 B
Level: Intermediate

The norm in the computing industry is that user demand exceeds capacity, despite Moore's law. This has been the case for real-time, interactive visualization; user datasets routinely exceed computing and graphics capacities. In recent years, computer graphics researchers have been developing a wide range of techniques to allow real-time, interactive visualization of massive datasets. This course takes a system-level view of the issues and approaches to successful implementation and includes separate sections that address rendering, level of detail, parallel programming, disk-access optimization, and data marshaling.

Prerequisite
General knowledge of computer graphics and rendering techniques.

Instructors
David Kasik
The Boeing Company
david.j.kasik@boeing.com

Dinesh Manocha
University of North Carolina at Chapel Hill

Steven Parker
Abe Stephens
University of Utah

Enrico Gobbetti
Fabio Marton
Center for Advanced Studies, Research and Development in Sardinia

Sungeui Yoon
Korea Advanced Institute of Science and Technology

Schedule

8:30 am Introduction, Motivation, and Practice
Kasik

9:10 am Rendering Approaches
Manocha

9:55 am Level of Detail Approaches
Gobbetti

10:15 am Break

10:30 am Level of Detail Approaches (continued)
Gobbetti/Marton

10:55 am Parallel Programming Paradigms
Stephens

11:40 am Optimizing Disk Access
Yoon/Slusallek/Dietrich

12:25 pm Concluding Remarks & Questions
All

Advances in Real-Time Rendering in 3D Graphics and Games: Part 2

Monday, 3:45 - 5:30 pm
Room 403 AB
Level: Intermediate/Advanced

Advances in real-time graphics research and the increasing power of mainstream GPUs have generated an explosion of innovative algorithms suitable for rendering complex virtual worlds at interactive rates. Every year, the latest video games display a vast variety of increasingly sophisticated algorithms that enable ground-breaking 3D rendering, push visual boundaries, and expand the interactive experience of rich environments.

This course covers a series of topics on the best practices and techniques prevalent in state-of-the-art rendering in several award-winning games and describes innovative and practical 3D rendering research that will be found in the games of tomorrow. The course features examples recently shipped games by Crytek, Rare, and Bungie and upcoming titles from Blizzard Entertainment and MediaMolecule, as well as graphics research from AMD's Game Computing Applications Group.

Prerequisites
Working knowledge of a modern real-time graphics APIs like OpenGL or Direct3D, a solid basic understanding of commonly used graphics algorithms, and familiarity with the concepts of programmable shading and shading languages.

Instructors
Natalya Tatarchuk
Christopher Oat
AMD Corporation
natashat@bu.edu

Alex Evans
MediaMolecule

Hao Chen
Xinguo Liu
Bungie Studio

Michael Boulton
Rare/MGS

Dominic Filion
Rob McNaughton
Blizzard Entertainment

Martin Mittring
Crytek GmbH

Schedule

3:45 pm Using Wavelets With Current and Future Hardware
Boulton

4:35 pm Rendering Techniques From StarCraft II
Filion and McNaughton

Sorting in Space: Multidimensional, Spatial, and Metric Data Structures for Computer Graphics Applications

Monday, 3:45 - 5:30 pm
Room 515 A

Level: Beginning

Representation of spatial data is an important issue in game programming, computer graphics, visualization, solid modeling, computer vision, and geographic-information systems (GIS). Recent interest in this field focuses on hierarchical data structures such as quadtrees, octrees, and pyramids, which are based on image hierarchies, and methods that make use of bounding boxes, which are based on object hierarchies. The key advantage of these approaches is that they provide a way to index into space. In fact, they are little more than multidimensional sorts. They are compact. Depending on the nature of the spatial data, they save space and time. And they facilitate operations such as search.

This class describes hierarchical representations of points, lines, collections of small rectangles, regions, surfaces, and volumes. For region data, the class emphasizes the dimension-reduction property of the region quadtree and octree. It also demonstrates how to use them for both raster and vector data. In the case of nonregion data, it shows how these data structures can be used to compute nearest objects in an incremental fashion so that the number of objects need not be known in advance. The VASCO JAVA applet is presented to illustrate these methods.

Prerequisites
Familiarity with computer terminology and some programming experience.

Instructor
Hanan Samet
University of Maryland
hjs@umiacs.umd.edu

Schedule

3:45 pm	Introduction
4:15 pm	Points
4:20 pm	Lines
4:25 pm	Regions
4:35 pm	Bounding Box Hierarchies
4:45 pm	Rectangles
4:55 pm	Surfaces and Volumes Metric Data
5 pm	Operations
5:05 pm	Demo
5:20 pm	Questions **Samet**

Get the Job You Want in Computer Graphics

Tuesday, 8:30 am - 12:15 pm
Room 406 AB

Level: Beginning

This class explains how to write a résumé, showcase your talent in a demo reel, and arrange job interviews. It includes examples of real-life résumés and demo reels; reviews the requirements for technical jobs such as software engineers, shader writers, and technical directors; and provides tips on interviewing and negotiating.

Prerequisites
None

Instructors
Pamela Kleibrink Thompson
Ideas to Go
pambo@q.com

Stan Szymanski
Sony Pictures Imageworks

Fran Zandonella
Fran Zandonella Consulting

Schedule

8:30 am	Introduction **Thompson**
8:35 am	Résumés and Cover Letters **Thompson**
8:55 am	Portfolios **Thompson**
9:05 am	Technical Jobs **Zandonella**
9:55 am	Demo Reels and Shot Breakdown **Thompson**
10:15 am	Break
10:30 am	Demo Reels and Shot Breakdown (cont) **Thompson**
11 am	Interviewing and the Offer **Szymanski**
11:40 am	Career Tips **Thompson**
11:50 am	Conclusion **Thompson**
11:55 am	Question and Answers **Thompson, Zandonella, and Szymanski**

Flow Simulations Using Particles: Bridging Computer Graphics and CFD

Tuesday, 8:30 am - 12:15 pm
Room 411

Level: Intermediate

This course reviews recent advances in flow simulations using particles with a focus on developing a bridge for using computer graphics algorithms and hardware to accelerate flow simulations of relevance to the CFD community. It describes advances in particle methods in a comparative, case-study-driven framework and addresses, for example, visual realism in liquid simulations in relation to the accuracy of enforcing incompressibility constraints in smooth particle hydrodynamics and vortex methods It also summarizes the advantages and drawbacks of using remeshing in particle simulations and presents techniques for effective handling of fluids interacting with solids and free surfaces.

Prerequisites
Basic knowledge of particle methods and fluids.

Instructors
Petros Koumoutsakos
ETH Zürich
petros@ethz.ch

Georges-Henri Cottet
Université Grenoble

Diego Rossinelli
ETH Zürich

Schedule

8:30 am Introduction
Koumoutsakos

Overview of particle methods for flow simulations. A perspective on the "disparity" between requirements in CFD and in Computer Graphics.

8:45 am Particle Methods for Flow Simulations – Background
Cottet

Generic features of particle methods for physical systems based on conservation laws- the case of incompressible fluids (vortex methods) and of compressible flows (SPH methods) distinction between completely grid-free methods and hybrid particle-grid methods.

9:25 am Remeshed Multi-Resolution Particle Methods
Koumoutsakos

The need for remeshing particles for control of the accuracy – effective remeshing formulas-- extension to multi-resolution particle methods.

10:15 am Break

10:30 am Particle Methods and Multiphysics Simulations
Koumoutsakos

I. Handling complex physics free surface and variable density flows - particle methods combined with level set methods for interface capturing – surface diffusion and pattern formation.

11 am Particle Methods and Multiphysics Simulations

II. Handling Complex Geometries Panel methods– immersed boundary particle methods for flow-structure interactions.

11:30 am Remeshed Particle Methods on the GPU
Rossinelli

GPU implementations of particle methods - particle mesh interpolations and fast Poisson solvers on GPUs.

11:50 am Questions and Discussion

Line Drawings From 3D Models

Tuesday, 8:30 am - 12:15 pm
Room 502 B

Level: Intermediate

Non-photorealistic rendering techniques, including line drawings, can be remarkably efficient at conveying shape and meaning with a minimum of visual distraction. This course describes techniques for automated rendering of 3D models using a number of sparse-line drawing styles, for both artistic and illustrative purposes. It mathematically defines lines such as silhouettes, contours, creases, suggestive contours and highlights, and apparent ridges and valleys. Next, it describes algorithms for finding lines efficiently, including object- and image-space methods, and discusses methods for stylization and level-of-detail control. Finally, it provides a brief introduction to concepts of visual perception, including the information content of line drawings and the effects of abstraction and detail on attention.

Prerequisites
Basic familiarity with the computer graphics pipeline and some knowledge of calculus and linear algebra.

Instructors
Szymon Rusinkiewicz
Adam Finkelstein
Doug DeCarlo
Forrester Cole
Princeton University
smr@princeton.edu

Schedule

8:30 am Introduction to the Study of Lines
Finkelstein

8:45 am Artists' Line Drawings
Cole

9:05 am Mathematical Description of Lines
Rusinkiewicz

9:50 am Perception of Line Drawings
DeCarlo

10:15 am Break

10:30 am Algorithms for Extracting Lines
Rusinkiewicz

11 am Stylization of Line Drawings
Finkelstein

11:25 am Abstraction and Evaluation
DeCarlo

11:55 am Controlling Detail and Attention
Cole

High-Dynamic-Range Imaging & Image-Based Lighting

Tuesday, 8:30 am - 12:15 pm
Room 403 AB
Level: Intermediate

This class outlines recent advances in high-dynamic-range imaging (HDRI), from capture to image-based lighting to display. In a hands-on approach, the class demonstrates how HDR images and video are captured, the file formats available to store them, and the algorithms required to prepare them for display on low-dynamic-range displays. The trade-offs at each step are assessed so attendees can make informed choices about data-capture techniques, file formats, and tone-reproduction operators. The class also presents the latest developments in image-based lighting.

Prerequisites
None. This course is intended for students, researchers, and industrial developers in digital photography, computer graphics rendering, real-time photoreal graphics, game design and visual-effects production (especially rendering and compositing).

Instructors
Greg Ward
Dolby Canada
gward@lmi.net

Erik Reinhard
University of Bristol and University of Central Florida

Paul Debevec
USC Institute for Creative Technologies

Schedule

8:30 am Introduction & Perspective
Ward

8:45 am HDR Image Capture & Representation
- Encoding Formats & Compression
- HDR Cameras & Capture Techniques

Ward

9:30 am HDR Tone-Mapping & Display
- Tone-mapping Operator Comparisons
- Forward + Reverse Sigmoid TMO

Reinhard

10:15 am Break

10:30 am HDR Ton-Mapping & Display (cont)

10:45 am Image-based Lighting
- Shooting & Applying Light Probes
- Image-Based Relighting

Debevec

11:45 am Questions & Answers
All

Introduction to Computer Graphics: The Big Picture

Tuesday, 10:30 am - 12:15 pm
Room 515 A
Level: Beginning

To get the most out of your time at SIGGRAPH, it helps to understand the concepts and speak the language. This class covers the essentials from 2D to 3D, demonstrates the core ideas with live demos using today's tools, and explains how to use modern software to create images, movies, and even procedural animation. The class provides a quick, dense infusion of graphics knowledge designed to make the rest of your week not just comprehensible, but exciting and stimulating.

Prerequisites
None

Instructor
Andrew Glassner
aquamusic@gmail.com

Schedule

10:30 am Introduction

10:35 am The Big Picture: The Basic Ideas of Computer Graphics
Discussion: Some of the Basic Ideas and Concepts That Make up the Field

10:45 am Creating Computer Graphics in Three Dimensions
Discussion: The basic ideas of 3D computer graphics
Live Demonstrations of Building 3D Models, Making Them Move, Creating Images, and Creating Movies

11:45 am Computer Graphics in Two Dimensions
Discussion: Proceduralism as a Form of Expressive Art
Live Demonstrations of Creating 2D Computer Graphics
Glassner

Computational Photography: Advanced Topics

Tuesday, 1:45 - 5:30 pm
Room 403 AB

Level: Intermediate

Computational photography combines computing, digital sensors, actuators, and lights to escape the limitations of traditional cameras. This powerful technology offers many new opportunities, including unbounded dynamic range, variable focus, resolution, and depth of field; hints about shape, reflectance, and lighting; and new interactive visuals that are partly snapshots and partly videos. This class briefly reviews fundamentals and provides a guide to advanced topics that will affect image capture and synthesis in computer graphics. Computational capture methods include sophisticated sensors, light sources, and on-board processing. The class summarizes the benefits of higher-dimensional representation of light fields and reflectance fields, clarifies concepts such as ray-transfer matrix, and explains wavefront coding and non-linear optics. It also includes applications of sensors for depth, thermal, and millimeter waves, and it explains image manipulation techniques using gradient-domain operations, graph cuts and bilateral filters.

Prerequisites
Basic understanding of the operation of lenses, image sensors, light sources, and projectors.

Schedule

1: 45pm	Introduction and Overview **Raskar**
2 pm	Concepts in Computational Photography **Tumblin**
2: 30pm	Optics: Computable Extensions **Raskar**
3 pm	Sensor Innovations **Tumblin**
3: 30pm	Break
3: 45pm	Illumination As Computing **Debevec**
4: 15pm	Scene and Performance Capture **Debevec**
4: 40 pm	Image Aggregation & Sensible Extensions **Tumblin**
5 pm	Community and Social Impact **Raskar**
5: 20pm	Summary and Discussion, Questions & Answers **All**

Instructors
Ramesh Raskar
Massachusetts Institute of Technology
raskar@media.mit.edu

Jack Tumblin
Northwestern University

Paul Debevec
USC Institute for Creative Technologies

Visual Thinking Via Shape Grammars

Tuesday, 3:45 - 5:30 pm
Wednesday, 10:30 am - 12:15 pm (REPEATED WEDNESDAY)
Room 411

Level: Beginning

The theory of shape grammars defines a formalism that addresses the ambiguity that is mostly ruled out by quantitative and symbolic computations in creative processes. The theory was first launched by Stiny and Gips in 1972 and has evolved into a groundbreaking, pragmatic philosophy of shape and design. This course includes a two-hour lecture that introduces the fundamentals of the theory and an optional one-day workshop where attendees can apply the theory in a hands-on session.

The lecture focuses on basic knowledge of shapes, shape algebras, and shape rules to explain how shape grammars translate visual and spatial thinking into design computation. It includes several examples of generative designs produced with shape grammars. The workshop consists of one exercise in which participants explore spatial relations among a number of shapes and produce a series of designs built by hand from prescribed material such as wooden blocks or paper.

The workshop (limited to 10-12 participants) is at 1 pm Wednesday in The Studio. Attendees may sign up for the workshop immediately following the class.

Prerequisites
No prerequisite other than enthusiasm for shapes and keenness in looking and seeing.

Schedule

3: 45pm Part I – The theory

- What are shape grammars?
- Describing shape grammars in terms of seeing and counting
- Describing shape grammars as a rule-based system
- Decompositions
- The mathematical set-up of shape grammars
- Basic elements: shapes, labels, weights
- Shape algebras
- Shape boundaries
- Part relations: embedding, overlapping, discrete elements
- Euclidean transformations
- Maximal shapes
- Boolean operations on shapes

4: 30pm Part II – Applications in design and design education

- Recapitulation of the main computational devices
- Recapitulation of the main computational devices of shape grammars
- Shape grammar applications in design analysis
- Shape grammar applications in design synthesis

Özkar and Kotsopoulos

Instructors
Mine Özkar
Middle East Technical University
ozkar@mit.edu

Sotirios Kotsopoulos
Massachusetts Institute of Technology

Don't Be a WIMP: A 60-Second Introduction to Augmented and Virtual Reality

Wednesday, 8:30 - 10:15 am
Room 502 A
Level: Beginning

Virtual and augmented reality have been around for a long time, but for most people they are movie fantasies. Very few people outside a few research labs have worked with or experienced these systems. On the other hand, interactive 3D graphics is ubiquitous, mostly in the form of games. More and more people are working in animation and games, creating models and programs for interactive 3D applications on standard monitors.

The goal of this class is to demonstrate that the leap to actual immersive or augmented environments is not as big as you might think. It explains how high-powered 3D graphics cards, mainstream applications of stereoscopic displays in 3D TV and movies, and webcams that achieve TV-quality images have significantly lowered the barriers to entry. And how, in combination with those hardware advances, freely available software based on open standards like X3D provides all the tools you need to access the elusive world of virtual and augmented reality applications. Following a summary of the basic principles of stereo displays, tracking systems and post-WIMP interaction metaphors, the main part of the course is a practical introduction to creating and running your own interactive and immersive applications.

Prerequisites
Basic knowledge of computer graphics. Understanding of what polygons, lights, and cameras are. Helpful but not required: graphics programming or 3D animation experience. This class is intended for attendees who are interested in interactive 3D graphics and might want to move beyond the WIMP (Window, Icon, Menu, Pointer) environment.

Schedule

8:30 am Introduction to Virtual and Augmented Reality
- History—Where does Virtual and Augmented Reality Come From and Where We Are Today

Behr

8:45 am VR/AR Application Development
- Basic Structures

Behr

8:55 am Scenegraphs in General and in Particular X3D
Behr

9:05 am Interactive and Navigation as Basic Elements of Any VR/AR Application
Behr

9:15 am Stereo Methods in Modern VR/AR Application
Reiners

9:35 am Cluster Setups for Distributed Rendering
Reiners

9:55 am Conclusion and Addition Demos
Reiners

Instructors
Johannes Behr
Fraunhofer Institut für Graphische Datenverarbeitung
Johannes.behr@igd.fraunhofer.de

Dirk Reiners
University of Louisiana at Lafayette

Visual Thinking Via Shape Grammars

Wednesday, 8:30 - 10:15 am
Room 411
Level: Beginning

The theory of shape grammars defines a formalism that addresses the ambiguity that is mostly ruled out by quantitative and symbolic computations in creative processes. The theory was first launched by Stiny and Gips in 1972 and has evolved into a groundbreaking, pragmatic philosophy of shape and design. This course includes a two-hour lecture that introduces the fundamentals of the theory and an optional one-day workshop where attendees can apply the theory in a hands-on session.

The lecture focuses on basic knowledge of shapes, shape algebras, and shape rules to explain how shape grammars translate visual and spatial thinking into design computation. It includes several examples of generative designs produced with shape grammars. The workshop consists of one exercise in which participants explore spatial relations among a number of shapes and produce a series of designs built by hand from prescribed material such as wooden blocks or paper.

The workshop (limited to 10-12 participants) is at 1 pm Wednesday in The Studio. Attendees may sign up for the workshop immediately following the class.

Prerequisites
No prerequisite other than enthusiasm for shapes and keenness in looking and seeing.

Schedule

8:30 am Part I – The theory

- What are shape grammars?
- Describing shape grammars in terms of seeing and counting
- Describing shape grammars as a rule-based system
- Decompositions
- The mathematical set-up of shape grammars
- Basic elements: shapes, labels, weights
- Shape algebras
- Shape boundaries
- Part relations: embedding, overlapping, discrete elements
- Euclidean transformations
- Maximal shapes
- Boolean operations on shapes

9:15 am Part II – Applications in design and design education

- Recapitulation of the main computational devices
- Recapitulation of the main computational devices of shape grammars
- Shape grammar applications in design analysis
- Shape grammar applications in design synthesis

Özkar and Kotsopoulos

Instructors
Mine Özkar
Middle East Technical University
ozkar@mit.edu

Sotirios Kotsopoulos
Massachusetts Institute of Technology

OpenGL: What's Coming Down the Graphics Pipeline

Wednesday, 8:30 am - 12:15 pm
Room 403 AB

Level: Beginning

OpenGL is the programming interface for cross-platform graphics applications in a wide range of systems, from supercomputers to mobile phones, and just like graphics hardware, it evolves with new graphics technology. This class presents an introduction to OpenGL, espouses best practices for performance and compatibility with future versions of the API, and provides a glimpse of OpenGL's future directions.

Topics include: the graphics pipeline from vertex specification to enabling texture maps, the use of shaders with programmable hardware, managing geometric transformations, lighting and illumination, increasing realism with texture mapping, efficient implementation, and how to extend those techniques using shaders.

The class includes program examples that are immediately usable in attendees' own applications.

Prerequisites
This class is appropriate for programmers who have at least an introductory knowledge of the techniques of computer graphics (for example, z-buffering, Gouraud shading, etc.) and are able to read basic programs written in C.

Instructors
Dave Shreiner
ARM
shreiner@siggraph.org

Ed Angel
University of New Mexico

Bill Licea-Kane
AMD Corporation

Evan Hart
NVIDIA Corporation

Schedule

8:30 am Introduction/OpenGL Rendering Fundamentals
Shreiner

9:20 am OpenGL Shaders and GLSL
Licea-Kane

10:15 am Break

10:30 am Lighting, Texturing, and Shading Techniques
Hart

11:20 am Applications and Examples
Angel

Noon OpenGL 3.0 Overview
Shreiner

12:10 pm Conclusion/Question and Answers
All

Motion Planning and Autonomy for Virtual Humans

Wednesday, 8:30 am - 12:15 pm
Room 502 B

Level: Beginning

Motion Planning for Virtual Humans (VHs) goes far beyond the traditional A*-based path-planning techniques that are commonly seen in videogames. Providing VHs motion autonomy requires seamless integration of computer-animation and motion-planning techniques, while taking into account the resulting motion quality and performance requirements. This class presents an overview of different classes of algorithms for the motion-planning problem and considers important basic questions: What is a configuration space, a probabilistic roadmap, or a random tree? It then explains how these concepts (developed in robotics) can be used for animation (providing VHs spatial intelligence and motion autonomy that mimic real human behaviors). Three key application areas are emphasized: grasping and manipulating virtual objects, VH locomotion, and crowd navigation in virtual environments. The class concludes with thoughts on a digressive question: Can the use of motion planning in computer animation benefit robotics in return?

Prerequisites
Basic knowledge of computer animation for virtual humans.

Instructors
Julien Pettre
INRIA
julien.pettre@inria.fr

Marcelo Kallmann
University of California, Merced

Ming C. Lin
University of North Carolina at Chapel Hill

Michael Gleicher
University of Wisconsin-Madison

Claudia Esteves
Universidad de Guanajuato

Jean-Paul Laumond
CNRS

James Kuffner
Carnegie Mellon University

Schedule

8:30 am Introduction
Pettre

8:45 am Motion Planning Basics
- Introduction: Problem Statement and Useful Concepts
- Problem Representations: Discrete vs. Continuous
- Dimensionality Issues and Sources of Problem Difficulty
- Sampling-Based Planning

Kuffner

9:15 am Case Study 1: Autonomous Navigation for a Virtual Human 30+

Part I - Generating Human Motion
Gleicher

9:45 am Part II - Multi-Level Navigation Planning Approaches
Esteves

10:15 am Break

10:30 am Case Study 2: Autonomous Navigation for crowds of Virtual Humans

Part I - Design and Simulation of Virtual Crowds
Pettre

10:50 am Part II - Motion Planning Techniques for Large-Scale Crowd Simulation
Lin

11:20 am Case Study 3: Autonomous Object Grasping for Virtual Humans

1. Sampling-Based Motion Planning for Object Manipulations
2. Planning Whole-Body Coordinated Motion
3. Improving Planning Performance with Learning

Kallmann

11:55 am Digression: Back to Real?
- Artificial Motion for Humanoid Robots
- Natural Motion for Human Beings

Laumond

Tile-Based Methods for Interactive Applications

Wednesday, 8:30 am - 12:15 pm
Room 515 A

Level: Intermediate

Many interactive applications could benefit from techniques that rely on tile-based methods, but the state of the art is scattered over several publications, and survey works are not available. This class provides a detailed overview of tile-based methods in computer graphics. It covers theoretical aspects, practical aspects (tiling algorithms), and applications (modeling, sampling, and rendering).

Prerequisites
Basic working knowledge of mathematics, computer science, and computer graphics (for example, texturing, graphics hardware, sampling, rendering, etc.).

Instructors
Ares Lagae
Katholieke Universiteit Leuven
ares.lagae@cs.kuleuven.be

Chi-Wing Fu
Nanyang Technological University

Victor Ostromoukhov
Université de Montréal

Craig S. Kaplan
University of Waterloo

Johannes Kopf
Universität Konstanz

Schedule

8:30 am Introduction
Lagae

8:35 am Tile-Based Methods Using Wang and Corner Tiles
Lagae

9:15 am Periodic Tilings for Computer Graphics Applications
Kaplan

9:55 am Tile-Based Methods for Surface Modeling
Fu

10:35 am Break

10:50 am Non-Periodic Tilings for Computer Graphics Applications
Ostromoukhov

11:30 am Tile-Based Methods for Non-Photorealistic Rendering and Landscape Modeling
Kopf

12:10 pm Conclusion
Kopf

Computation & Journalism

Wednesday, 1:45 - 5:30 pm
Room 502 A

Level: Beginning

Fundamentally, journalism is the process of collecting news information and disseminating that information with a layer of contextualization and understanding provided by journalists in the form of a news story. Recent advances in computational technology are rapidly affecting how news is gathered, reported, and distributed, and how stories are authored and told. New technologies for aggregating, visualizing, summarizing, consuming, and collaborating on news are becoming increasingly popular. They are challenging the traditional practices of journalism and directly affecting the future of news production and consumption. Computation and journalism share a deep interest in information and the value it provides to society, and they are deeply involved in the future of storytelling in various contexts, especially current events.

This class summarizes how these new technologies affect journalism, both at the core of the journalism discipline and in its practice and business. Topics include: the technologies that have empowered citizen journalism and related citizen media production and authoring; mobile and sensing technologies that allow journalism to become ubiquitous and pervasive; the changes in photo, video, and broadcast journalism; and how web, online, and science journalism are changing the basic processes of reporting. Instructors focus especially on areas of special interest to the SIGGRAPH community: photography and video, large-scale information visualization, and social networking.

Prerequisites
None

Instructors
Irfan Essa
Georgia Institute of Technology
irfan@cc.gatech.edu

Brad Stenger
WIRED NextFest

Jonathan Berlin
Tribune Company

Eric Ulken
Los Angeles Times

Michael Koetter
CNN

Maneesh Agrawala
University of California, Berkeley

Jeffrey Heer
University of California, Berkeley

Schedule

1:45 pm Introduction
Essa

2 pm What is Computation and Journalism
Essa and Stenger

2:15 pm Changing Newspapers
Berlin

2:45 pm Web Journalism
Ulken

3:15 pm Video/Broadcast Journalism
Koetter

3:45 pm Information Visualization for News
Agrawala

4:15 pm Collaborative Info Viz for New
Heer

4:45 pm Science Journalism
Stenger

5:15 pm Discussion
Essa

Beyond Programmable Shading: Fundamentals

Thursday, 8:30 am - 12:15 pm
Room 403 AB

Level: Advanced

This first class in a series gives an introduction to parallel programming architectures and environments for interactive graphics. There are strong indications that the future of interactive graphics involves a programming model more flexible than today's OpenGL/Direct3D pipelines. As such, graphics developers need to have a basic understanding of how to combine emerging parallel programming techniques with the traditional interactive rendering pipeline. This class gives an introduction to several parallel graphics architectures and programming environments, and introduces the new types of graphics algorithms that will be possible.

Prerequisites
Experience with a modern graphics API (OpenGL or Direct3D), including basic experience with shaders, textures, and frame buffers, and/or familiarity with parallel-programming languages. Some knowledge of parallel programming on CPUs or GPUs is useful but not required, because an overview will be provided in the course.

Instructors
Aaron Lefohn
Intel Corporation
aaron.lefohn@gmail.com

Mike Houston
AMD Corporation

Chas Boyd
Microsoft Corporation

Kayvon Fatahalian
Stanford University

Tom Forsyth
Intel Corporation

David Luebke
NVIDIA Corporation

John Owens
University of California, Davis

Schedule

8:30 am Why and How is Interactive Graphics Programming Changing?
Lefohn

8:40 am Running Code at a Teraflop: How GPU Shader Cores Work
Fatahalian

8:55 am NVIDIA GPU Architecture: Implications & Trends
Luebke

9:15 am Anatomy of AMD's TeraScale Graphics Engine
Houston

9:35 am Larrabee Graphics Architecture: Software is the New Hardware
Forsyth

9:55 am Parallel Programming Models Overview
Owens

10:15 am Break

10:30 am Introduction to the AMD Stream SDK
Houston

10:50 am CUDA Fundamentals
Luebke

11:10 am The DirectX 11 Compute Shader
Boyd

11:30 am OpenCL
Munshi

11:50 am Programming Larrabee: Beyond Data Parallelism
Lefohn

12:10 pm Wrap-Up, Question & Answers
All

CGAL - The Computational Geometry Algorithms Library

Thursday, 8:30 am - 12:15 pm
Room 411

Level: Intermediate

The CGAL Open Source project provides easy access to efficient and reliable geometric algorithms in the form of a C++ library, which offers geometric data structures and algorithms that are efficient, robust, easy to use, and easy to integrate in existing software. The use of de facto standard libraries like CGAL increases productivity, because it allows software developers to focus on the application layer. This course is targeted for software developers who need to know how to select and use the appropriate algorithms and data structures provided by CGAL in current or upcoming projects.

The CGAL project was founded in 1996 by the Max-Planck-Institut für Informatik, Universiteit Utrech, INRIA, Freie Universität Berlin, Tel Aviv University, and ETH Zürich. In 2003, CGAL became an open-source project. It provides annual releases and 10,000 downloads per year, which are used in the fields GIS,CAD, image processing, and graphics.

Prerequisites
Knowledge of C++ and C++ templates. Familiarity with algorithms and data structures in the field of computational geometry is helpful but not necessary.

Instructors
Andreas Fabri
GeometryFactory
andreas.fabri@geometryfactory.com

Pierre Alliez
INRIA

Efi Fogel
Tel Aviv University

Schedule

8:30 am Overview
Fabri

9 am Polyhedron
Alliez

9:40 am Arrangements
Fogel

10:15 am Break

10:30 am Triangulations & Meshes
Fabri and Alliez

Noon Wrap-up, Questions & Answers
All

Advanced Material Appearance Modeling

Thursday, 8:30 am - 12:15 pm
Room 502 A

Level: Advanced

For many years, appearance models in computer graphics focused on general models for reflectance functions coupled with texture maps. Recently, it has been recognized that even very common materials such as hair, skin, fabric, and rusting metal require more sophisticated models to appear realistic.

This class begins with a brief review of basic reflectance models and the use of texture maps. It describes common themes in advanced material models (combining the effects of layers, groups of particles, and/or fibers); surveys the detailed models needed for materials such as (but not limited to) skin (including pigmentation, pores, subsurface scattering), plants (including internal structure), and automotive paints (including color flop and sparkle); and summarizes modeling of complex appearance due to aging and weathering processes. The class includes a general taxonomy of effects, as well as methods to simulate and capture these effects.

Prerequisites
Knowledge of basic rendering and reflectance functions.

Instructors
Holly Rushmeier
Julie Dorsey
Yale University
holly@acm.org

François Sillion
Institut National de Recherche en Informatique et Automatique

Schedule

8:30 am Introduction
Rushmeier

8:45 am Background
Sillion

9:25 am Specialized Material Models: Common Themes Natural Materials
Dorsey

10:15 am Break

10:30 am Specialized Material Models: Manufactured/Processed Materials
Rushmeier

11 am Aging and Weathering Processes: Taxonomy
Dorsey

11:10 am Simulation
Dorsey

11:50 am Capture Approaches
Rushmeier

12:05 pm Future Trends and Resources
All

Real Time Physics

Thursday, 8:30 am - 12:15 pm
Room 515 A

Level: Intermediate

Physical simulations have become an important component of computer games. In next-generation games, players expect to see fully dynamic and destructible worlds, and this requires fast and stable simulation methods. In this class, lecturers who have made significant contributions in simulation methods present a wide spectrum of state-of-the-art methods for real-time simulation of rigid and deformable solids, and smoke and liquid simulation. In addition to the underlying physical equations, they present practical simulation methods and algorithms that will help physical-simulation developers and game developers apply these techniques properly.

Prerequisites
Basic knowledge of calculus, physics, and C or C++ programming.

Instructors
Matthias Müller-Fischer
NVIDIA Corporation
matthiasm@nvidia.com

Doug James
Cornell University

Jos Stam
Autodesk, Inc.

Nils Thuerey
ETH Zürich

Schedule

8:30 am Introduction
Müller-Fischer

8:45 am Deformable Objects
Müller-Fischer

9:30 am Multimodal Physics and User Interaction
James

10:15 am Break

10:30 am Fluids
Thuerey

11:15 am Unified Solver
Stam

Noon Questions and Answers
All

Beyond Programmable Shading: In Action

Thursday, 1:45 - 5:30 pm
Room 403 AB

Level: Intermediate

This class, the second in a series, explores case studies of combining traditional rendering API usage with advanced parallel computation from game developers, researchers, and graphics hardware vendors. There are strong indications that the future of interactive graphics programming is a more flexible model than today's OpenGL/Direct3D pipelines. Graphics developers will need to have a basic understanding of how to combine emerging parallel programming techniques and more flexible graphics processors with the traditional interactive rendering pipeline. Each case study in the class includes a live demo and discusses the mix of parallel programming constructs used, details of the graphics algorithm, and how the rendering pipeline and computation interact to achieve the technical goals.

Prerequisites
Experience with a modern graphics API (OpenGL or Direct3D), including basic experience with shaders, textures, and frame buffers and/or background in parallel programming languages. Some background in parallel programming on CPUs or GPUs is useful but not required, as an overview will be provided in the course. Attendees are strongly encouraged to attend the first SIGGRAPH 2008 class in this series: Beyond Programmable Shading: Fundamentals.

Instructors
Aaron Lefohn
Intel Corporation
aaron.lefohn@gmail.com

Mike Houston
AMD Corporation

David Luebke
NVIDIA Corporation

Jon Olick
Id Software

Fabio Pellacini
Dartmouth University

Schedule

1:45 pm Introduction: Better Interactive Graphics Through Computation
Houston

2 pm Interactive Cinematic Lighting
Pellacini

2:30 pm Current Generation Parallelism in Games
Olick

3 pm Next Generation Parallelism in Games
Olick

3:30 pm Break

3:45 pm NVIDIA Case Studies: Compute-Enabled Graphics
Luebke

4:15 pm AMD Case Study: March of the Froblins
Shopf

4:45 pm Larrabee Case Studies: Fully Programmable Graphics
Lefohn

5:15 pm Conclusions, Questions & Answers
All

Principles of Appearance Acquisition and Representation

Thursday, 1:45 - 5:30 pm
Room 502 A

Level: Intermediate

Algorithms for scene understanding and realistic image synthesis require accurate models of the way real-world materials scatter light. This class describes recent work in both the graphics and vision communities to measure the spatially and directionally varying reflectance and subsurface scattering of complex materials, and to develop efficient representations and analysis tools for these datasets. It describes the design of acquisition devices and capture strategies for BRDFs and BSSRDFs, efficient factored representations, and a case study of capturing the appearance of human faces.

Prerequisites
Basic familiarity with the computer graphics pipeline and some knowledge of linear algebra and calculus.

Instructors
Tim Weyrich
Princeton University
tweyrich@cs.princeton.edu

Jason Lawrence
University of Virginia

Hendrik P. A. Lensch
Max-Planck-Institut für Informatik

Szymon Rusinkiewicz
Princeton University

Todd Zickler
Harvard University

Schedule

1:45 pm A Review of Radiometry & Physical Models
Rusinkiewicz

2:10 pm Principles of Acquisition
Zickler

2:50 pm (Spatially Varying) BRDF Models
Lawrence

3:30 pm Break

3:45 pm From BSSRDFs to 8D Reflectance Fields
Lensch

4:25 pm The Human Face Scanner Project
Weyrich

5:05 pm Future Directions of Research Questions & Answers
All

Know Your Rights: A Legal Primer for Software Developers, Artists, and Content Creators

Thursday, 1:45 - 5:30 pm
Room 515 A

Level: Beginning

What's the difference between a copyright and a trademark, between trade secrets and patents? What do these terms really mean? Having trouble keeping up with the various open-source and content licensing schemes? Want to distribute your creative work, but don't know how to prevent unauthorized use? Concerned about lawsuits based on your web site or user-created content? This class introduces the basic legal concepts you need to understand to license, distribute, and protect your content, and avoid making expensive mistakes that can ruin your business. In the question-and-answer period following the session, the presenters discuss attendees' legal questions.

Prerequisites
None. No prior legal knowledge is required.

Instructors
Gil Irizarry
Conoa, Inc.
gil@conoa.com

Gregory P. Silberman
Kaye Scholer LLP

Neer Gupta
The Walt Disney Company

Schedule

1:45 pm Introduction
Irizarry

1:55 pm Legal Primer
Basic Contract Law - Why You Need a Contract and Why it Should be Signed
- Trade Secrets
- Copyrights
- Trademarks and Domain Names
- Rights of Publicity
- Patents

Silberman

2:45 pm Special Issues for Software Developers
- How Software is protected.
- Copyright Registration - Why You Should Do It and How to Do It.
- Work Made For Hire - How to Avoid Paying for Something and Not Owning It.
- Proprietary Licensing vs. Open Source Licenses
- Open Source Licensing Regime Round Up - Which One is Right for You?
- What Agreements Do You Need to Have and How Do You Protect What You Create?

Silberman

3:30 pm Break

3:45 pm Special Issues for Artists and Content Creators
- Protecting Audio Visual Works, Sound Recordings, Photographs, Character Designs and More
- Opens Source Content
- Creative Commons
- The Basics of Content Licensing
- Rights Management - What Is It And What Can It Do For You?
- User Generated Content And What It means For Your Business.

Gupta

4:30 pm Getting Ripped Off or Getting Served
- Be Prepared
- What Not to Do
- When to Call Your Lawyer

Gupta

5 pm Stump the Panel!
Ask Your Legal Questions!

The Art of Grant Writing

Friday, 8:30 - 10:15 am
Room 406 AB

Level: Beginning

This class covers general proposal writing for academic projects in two broad categories: research and education. It reviews the project concept, the search for an appropriate funding program, and development of a proposal based on a program announcement. Attendees develop a solid understanding of the structure of a competitive proposal, learn the different ways a proposal may be reviewed, and discuss the essential factors that determine whether or not a project gets funded.

Prerequisites
None

Instructors
Steve Cunningham
rsc@cs.csustan.edu

Mike McGrath

Lawrence J. Rosenblum
Naval Research Laboratory (NRL)

Schedule

8:30 am Overview of project development
McGrath

8:45 am Developing funding sources
McGrath

8:55 am General points about NSF and proposals
Rosenblum

9:20 am Examples of Grant Programs
Iowa Arts Council
NSF Undergraduate Education Programs
Cunningham

9:30 am Points a proposal should address
Cunningham

9:45 am Making your proposal stand out
Cunningham

9:55 am Proposal reviewing
Cunningham

10 am Post-award issues
Cunningham

10:05 am Questions and Answers
All

Psychophysics 101: How to Run Perception Experiments in Computer Graphics

Friday, 8:30 - 10:15 am
Room 502 A
Level: Intermediate

Psychophysical methods from experimental psychology can be used to quantify the relationships between the properties of images and what people perceive. The results of psychophysical experiments can be used to create predictive models of human perception that can guide development of effective and efficient graphics algorithms and useful graphical interfaces. This course provides an introduction to the use of psychophysical methods in computer graphics and teaches attendees how to develop experiments that can be used to advance graphics research and applications. Throughout the presentation, graphics-relevant examples help attendees understand how to design and run their own experiments, analyze the results, and develop perceptually based algorithms and applications. The course is designed for members of the graphics community who want to interpret the results of perception psychology experiments and develop their own user studies of computer graphics techniques.

Prerequisites
A basic understanding of issues in computer graphics and electronic imaging. Familiarity with freshman-level college math is helpful. No specific knowledge of perception psychology or statistical methods is required.

Instructor
James A. Ferwerda
Rochester Institute of Technology
jaf@cis.rit.edu

Schedule

8:30 am Welcome, Introductions, Schedule Review

8:35 am Motivation/Orientation

- Why Does Graphics Need Psychophysics?
- What Kinds of Problems Can be Addressed by Psychophysics?
- How Does Psychophysics Relate to Physical Measurement?
- How is Psychophysics Different From Usability?
- What Kinds of Results Can Psychophysics Produce?
- Why Don't we Just Mine the Existing Literature?
- How Do We Make Progress?

8:55 am Psychophysical Methods

9:45 am Case Studies

10:10 am Summary/Resources
Ferwerda

Realistic Hair Simulation – Animation and Rendering

Friday, 8:30 am - 12:15 pm
Room 411
Level: Intermediate

This class is for special-effects developers and technical directors who are looking for innovation as well as proven methodologies in hair simulation. It presents the state of the art in hair simulation and working solutions that they can readily implement in their production pipelines. The class is also a boot camp for aspiring computer graphics researchers interested in physically based modeling. It covers two crucial tasks in hair simulation: animation and rendering. For hair animation, it reviews recent successful models for simulating the dynamics of individual hair strands, then presents viable solutions for complex hair-hair and hair-body interactions. For rendering, it addresses issues related to shading models, multiple scattering, and volumetric shadows. The class concludes with a demonstration of how hair-simulation techniques are developed and applied in feature films to produce outstanding visual effects.

Prerequisites
Familiarity with the fundamentals of computer graphics, physical simulation, and physically based rendering is strongly recommended but not mandatory. Some knowledge of numerical linear algebra, differential equations, numerical methods, rigid-body dynamics, collision detection and response, and physics-based illumination models is also recommended.

Instructors
Florence Bertails
INRIA Rhône-Alpes
florence.bertails@inrialpes.fr

Sunil Hadap
Adobe Systems Incorporated

Marie-Paule Cani
Institut National Polytechnique de Grenoble

Ming Lin
University of North Carolina at Chapel Hill

Kelly Ward
Walt Disney Animation Studios

Steve Marschner
Cornell University

Tae-Yong Kim
Rhythm & Hues Studios

Zoran Kačić-Alesić
Industrial Light & Magic

Schedule

8:30 am Introduction: Virtual Hair, Motivation & Challenges
Cani

8:35 am Dynamics of Strands
Hadap and Bertails

9:20 am Hair-obstacle and Hair-hair Interaction
Cani, Lin and Ward

10:15 am Break

10:30 am Hair Rendering
Marschner

11 am Hair Simulation in Feature Productions
Ward, Kačić-Alesić and Kim

12:05 pm Questions and Discussions
All

A Gentle Introduction to Bilateral Filtering and its Applications

Friday, 8:30 am - 12:15 pm
Room 502 B

Level: Intermediate

The bilateral filter is a nonlinear process that smooths an image while preserving its edges. Although this description may sound scary to most of us, this filter is nothing other than a basic weighted average. It is a simple tool that has become ubiquitous in image processing and has shown remarkable abilities to filter images, videos, and even 3D meshes. This course presents the bilateral filter's most successful applications, describes its various implementations, and comprehensively summarizes the related theoretical background. The course begins with classical Gaussian blur, then defines the bilateral filter, and ends with extensions such as cross-bilateral filtering. These discussions are systematically complemented with demonstrations of state-of-the-art applications such as tone mapping and photograph enhancement. Finally, the course demonstrates that all the benefits of bilateral filtering are contained within a few dozen lines of code.

Prerequisites
Some digital image basics (pixels, gray levels, noise) and some modest programming experience. If you can compute a weighted average, then you are ready to take this course. Don't worry if you are not familiar with integrals or Gaussian functions.

Schedule

8:30 am Introduction
Paris

8:40 am Gaussian Blur
Paris

8:50 am Fixing the Gaussian Blur: The Bilateral Filter
Paris

9:05 am Applications: What You Can do With a Simple Bilateral Filter?
Durand

9:40 am Interpreting the Bilateral Filter
Durand

10:15 am Break

10:30 am Efficient Implementations
Paris

10:55 am Variants of the Bilateral Filter
Tumblin

11:10 am Applications: Advanced Use of Bilateral Filter
Tumblin

11:40 am Limitations
Paris

Noon Conclusion
Tumblin

Instructors
Sylvain Paris
Adobe Systems Incorporated
sparis@adobe.com

Jack Tumblin
Northwestern University

Frédo Durand
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Practical Global Illumination With Irradiance Caching

Friday, 8:30 am - 12:15 pm
Room 515 A

Level: Intermediate

Since its invention, irradiance caching has been successfully used to compute global illumination in the Radiance lighting-simulation system. Its widespread use had to wait until global illumination won recognition in production rendering. Since then, it has been at the core of most global illumination-enabled rendering software. Still, although elegant and powerful, the algorithm often fails to produce artifact-free images.

The first and main objective of this class is to teach the use of irradiance caching for global illumination computation and expose, on a problem-and-solution basis, all the tricks for successful and robust implementation. It emphasizes integration in production environments and discusses the particularities used at PDI/DreamWorks and Pixar. The second objective is to acquaint attendees with recent research related to irradiance caching, such as a fast GPU implementation, rendering of flicker-free animations, and caching on glossy surfaces.

Prerequisites
A basic understanding of rendering (ray tracing in particular). Familiarity with global illumination concepts is useful.

Schedule

8:30 am Introduction
Křivánek

8:35 am Monte Carlo Ray Tracing
Křivánek

8:55 am Irradiance Caching Algorithm
Ward

9:20 am Irradiance Caching in Radiance
Ward

9:35 am Problems & Solutions: Implementation Details
Křivánek

10 am Irradiance Caching and Photon Maps
Jensen

10:15 am Break

10:30 am Extension to Glossy Surfaces: Radiance Caching
Křivánek

10:45 am Hardware Implementation
Gautron

11:05 am Temporal Caching
Gautron

11:20 am Irradiance Caching at PDI/DreamWorks
Tabellion

11:55 am Irradiance Caching in Pixar's RenderMan
Christensen

12:15 pm Discussion
All

Instructors
Jaroslav Křivánek
CTU Prague
xkrivanj@fel.cvut.cz

Pascal Gautron
Thomson Corporate Research

Greg Ward
Dolby Canada

Henrik Wann Jensen
University of California, San Diego

Per Christensen
Pixar Animation Studios

Eric Tabellion
PDI/DreamWorks

Advanced Global Illumination Using Photon Mapping

Friday, 1:45 - 5:30 pm
Room 515 A
Level: Advanced

Photon mapping provides a practical way of efficiently simulating global illumination, including interreflections, caustics, color bleeding, participating media, and subsurface scattering in scenes with complicated geometry and advanced material models.

This class provides the insight necessary to efficiently implement and use photon mapping to simulate global illumination in complex scenes. It briefly reviews the fundamentals of photon mapping, including efficient techniques and data structures for managing large numbers of rays and photons, and it describes how to integrate the information from the photon maps in shading algorithms to render global illumination.

Based on requests from past attendees of this course, a larger portion of the presentation will be dedicated to advanced techniques for photon mapping and more recent developments, including efficient methods for using photon mapping in scene with participating media and subsurface scattering.

Prerequisites
A good understanding of lighting and shading, linear algebra, and the basics of the ray tracing algorithm.

Schedule

1:45 pm Introduction and Welcome
Jarosz

1:50 pm Overview of Global Illumination
Jarosz

2:05 pm Photon Tracing: Building the Photon Maps
Jensen

2:45 pm Rendering Using Photon Mapping
Jensen

3:30 pm Break

3:45 pm Participating Media
Jarosz

4:30 pm Subsurface Scattering
Donner

5:15 pm Final Remarks and Questions
All

Instructors
Wojciech Jarosz
Henrik Wann Jensen
University of California, San Diego
wjarosz@ucsd.edu

Transportation Visualization

Friday, 3:45 - 5:30 pm
Room 502 A
Level: Beginning

This class highlights how transportation planners, engineers, and members of the Transportation Research Board's Committee on Visualization in Transportation are using computer graphics techniques and interactive visual displays in their system planning, project design, construction, and public-involvement activities. Practical examples include depiction of how three-dimensional models of alternate round-about treatments in roadway designs are currently being used in conjunction with micro-simulation models of driver-vehicle interactions to evaluate alternative crossing solutions for visually impaired pedestrians at roundabouts and channelized turn lanes.

All three class presenters are members of the Transportation Research Board's Committee on Visualization in Transportation.

Prerequisites
Basic appreciation and knowledge of computer graphics and visualization.

Schedule

3:45 pm Introductory Remarks
Hughes, Manore, and Rhyne

3:50 pm Defining Transportation Visualization
Rhyne

4:20 pm Transportation Visualization: Where does it fit within the bigger picture of things?
Hughes

4:50 pm Applying Computer Graphics Techniques in Transportation Design and Construction including How to Educate Transportation Engineers About Visualization
Manore

5:20 pm Concluding Remarks - Where to Find Out More
Hughes, Manore, and Rhyne

Instructors
Theresa-Marie Rhyne
North Carolina State University
tmrhyne@ncsu.edu

Michael Manore
Consultant - AEC Visualization

Ronald Hughes
North Carolina State University

Technical Papers

The Technical Papers Committee for the SIGGRAPH 2008 Technical Program accepted 90 papers to the conference, and these papers are divided into 22 sessions. To provide an even more comprehensive picture of the year's progress in graphics, the SIGGRAPH Technical Program has expanded to include six additional sessions of papers from the current annual volume of the ACM Transaction on Graphics (TOG), including an advance look at papers from the upcoming October 2008 issue.

Technical Papers are presented in the Full Conference DVD-ROM that Full Conference attendees receive with their registration.

Full Conference Access registration allows attendees access to all SIGGRAPH 2008 Technical Papers. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Technical Papers sessions you wish to attend.

Paper Discussants

To promote a lively exchange of ideas during the Technical Papers program, we have set up a system of per-paper discussants. Each paper in the program will be allotted 25 minutes, 20 minutes for presentation and five minutes for discussion of the paper, with the session chair serving as discussant.

Anyone may submit a question to the discussant for any reason. These questions should be scholarly in nature, diplomatically phrased, and specific to one of the papers being presented in that session.

How do I submit a question at SIGGRAPH 2008?

For each session that follows there is a unique email address so that you can submit your questions electronically for each session. Also, as you walk into each paper session, there will be a box of index cards and pens at the door. Feel free to pick up a card, scribble a question (even during the talk), and hand it to a Student Volunteer, who will hand-deliver it to the discussant.

What will happen to my question after I submit it?

Emails sent to these addresses will be routed to the appropriate session chairs, who will check their email at least until the night before the session. Questions will not be shown to speakers beforehand.

Will my question remain anonymous?

In your questions, you may identify yourself or you may remain anonymous. (If you submit electronically, indicate whether you wish to be indentified or not.) In either case, don't forget to designate which of the papers in that session you are asking a question about.

Image Collections & Video

Tuesday, 12 August, 8:30 - 10:15 am
Hall B

Session Chair/Discussant
Aseem Agarwala
University of Washington
ImageCollection-Video@siggraph.org

Factoring Repeated Content Within and Among Images
Using repeated instancing of texture patterns to create a condensed factorization of one or more images. The representation is randomly accessible and offers a new mode of progressivity.

Huamin Wang
Georgia Institute of Technology

Yonatan Wexler
Eyal Ofek
Microsoft

Hugues Hoppe
Microsoft Research

Finding Paths Through the World's Photos
This approach takes large photo collections and analyzes the distribution of reconstructed camera viewpoints to derive optimal paths and controls for fluid 3D scene browsing.

Noah Snavely
Rahul Garg
Steven Seitz
University of Washington

Richard Szeliski
Microsoft Research

Improved Seam Carving for Video Retargeting
Extending seam carving to work on video with a forward-looking energy criterion that considerably reduces spatial and temporal artifacts.

Michael Rubinstein
Mitsubishi Electric Research Laboratories

Ariel Shamir
Interdisciplinary Center Herzliya

Shai Avidan
Adobe Systems Incorporated

Unwrap Mosaics: A New Representation for Video Editing
By automatically unwrapping texture maps from real-world video, this method enables 3D edits without a 3D model.

Alex Rav-Acha
Weizmann Institute of Science

Pushmeet Kohli
Andrew Fitzgibbon
Carsten Rother
Microsoft Research

Animation

TRANSACTION ON GRAPHICS TECHNICAL PAPERS

Tuesday, 12 August, 8:30 - 10:15 am
Room 408 AB

Session Chair/Discussant
Michael Gleicher
University of Wisconsin, Madison
Animation_Papers@siggraph.org

Evaluating Motion Graphs for Character Animation

Paul Reitsma
Nancy Pollard
Carnegie Mellon University

Synthesis and Evaluation of Linear Motion Transitions

Jing Wang
University of South Florida

Bobby Bodenheimer
Vanderbilt University

Free-Form Motion Processing

Scott Kircher
University of Illinois, Urbana-Champaign

Michael Garland
NVIDIA Corporation

Geometric Skinning With Approximate Dual Quaternion Blending

Ladislav Kavan
Steven Collins
Trinity College Dublin

Jiri Zara
Czech Technical University in Prague

Carol O'Sullivan
Trinity College Dublin

Parallelism

Tuesday, 12 August, 10:30 am - 12:15 pm
Hall B

Session Chair/Discussant
Marc Olano
University of Maryland
Parallelism@siggraph.org

Larrabee: A Many-Core x86 Architecture for Visual Computing
The Larrabee hardware and software architecture uses multiple CPU cores with wide vector processors, coherent caches, and texture units for standard graphics rendering and throughput-computing applications.

Larry Seiler
Doug Carmean
Eric Sprangle
Tom Forsyth
Intel Corporation

Michael Abrash
RAD Game Tools

Pradeep Dubey
Stephen Junkins
Adam Lake
Intel Corporation

Jeremy Sugerman
Stanford University

Robert Cavin
Roger Espasa
Ed Grochowski
Toni Juan
Intel Corporation

Pat Hanrahan
Stanford University

BSGP: Bulk-Synchronous GPU Programming
A new programming language for general-purpose computation on the GPU.

Qiming Hou
Tsinghua University

Kun Zhou
Baining Guo
Microsoft Research Asia

Parallel Poisson Disk Sampling
A poisson disk-sampling algorithm that is parallel, runs fast on a GPU, exhibits blue-noise spectrum, works in arbitrary dimensions, requires no pre-computed dataset, and allows adaptive sampling.

Li-Yi Wei
Microsoft Research

Streaming Multigrid for Gradient-Domain Operations on Large Images
A new tool to solve the large linear systems arising from gradient-domain image processing, to enable stitching and tone-mapping of gigapixel images.

Michael Kazhdan
Johns Hopkins University

Hugues Hoppe
Microsoft Research

Noisy Collisions

Tuesday, 12 August, 10:30 am - 12:15 pm
Room 408 AB

Session Chair/Discussant
Miguel Otaduy
URJC Madrid
NoisyCollisions@siggraph.org

Spline Joints for Multibody Dynamics
A novel class of joints that can model general scleronomic constraints for minimal coordinate-based multibody dynamics.

Sung-Hee Lee
Demetri Terzopoulos
University of California, Los Angeles

Robust Treatment of Simultaneous Collisions
An algorithm for robust treatment of simultaneous collisions. This method follows from the observation that an inelastic collision can be treated as a projection in configuration space.

David Harmon
Etienne Vouga
Columbia University

Rasmus Tamstorf
Walt Disney Animation Studios

Eitan Grinspun
Columbia University

Fast Modal Sounds With Scalable Frequency-Domain Synthesis
A fast Fourier space algorithm for modal sound synthesis that allows significant acceleration compared to time-domain approaches and integration into a combined pipeline with recorded and modal sounds.

Nicolas Bonneel
George Drettakis
Nicolas Tsingos
REVES/INRIA Sophia-Antipolis

Doug James
Cornell University

Isabelle Viaud-Delmon
CNRS-UPMC UMR 7593

Backward Steps in Rigid-Body Simulation
An LCP-based method for integrating rigid-body dynamics backward in time, with special attention to issues of frictional contact and non-unique solutions.

Christopher Twigg
Carnegie Mellon University

Doug James
Cornell University

Rendering Materials

TRANSACTION ON GRAPHICS TECHNICAL PAPERS

Tuesday, 12 August, 1:45 - 3:30 pm
Room 408 AB

Session Chair/Discussant
François Sillion
INRIA Gernoble Rhône-Alps
RenderingMaterials@siggraph.org

Modeling and Rendering of Heterogeneous Translucent Materials Using The Diffusion Equation

Jiaping Wang
Institution of Computing Technology

Shuang Zhao
Xin Tong
Stephen Lin
Zhouchen Lin
Microsoft Research Asia

Yue Dong
Tsinghua University

Baining Guo
Harry Shum
Microsoft Research Asia

Realistic Rendering of Birefringency in Uniaxial Crystals

Andrea Weidlich
Alexander Wilkie
Technische Universität Wien

A Precomputed Polynomial Representation for Interactive BRDF Editing With Global Illumination

Aner Ben-Artzi
Kevin Egan
Columbia University

Frédo Durand
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Ravi Ramamoorthi
Columbia University

Real-Time Rendering of Textures With Feature Curves

Evgueni Parilov
Denis Zorin
New York University

Characters

Tuesday, 12 August, 3:45 - 5:30 pm
Hall B

Session Chair/Discussant
Karen Liu
Georgia Tech
Characters@siggraph.org

Clone Attack! Perception of Crowd Variety
In simulating large crowds, it is inevitable that the models and motions of many characters are cloned. The perceptual impact of this trade-off is considered in this paper.

Rachel McDonnell
Micheal Larkin
Simon Dobbyn
Steven Collins
Carol O'Sullivan
Trinity College Dublin

Real-Time Motion Retargeting to Highly Varied User-Created Morphologies
A system that animates characters of wildly different skeleton morphologies, where the morphologies are unknown at the time the animation is authored.

Chris Hecker
Bernd Raabe
Ryan W. Enslow
John DeWeese
Maxis/Electronic Arts

Jordan Maynard
Trion World Network

Kees van Prooijen
Total Immersion Software

Animating Oscillatory Motion With Overlap: Wiggly Splines
Wiggly splines provide a powerful technique for animating oscillatory motion. The splines generalize traditional piecewise cubics by adding a tunable resonance.

Michael Kass
John Anderson
Pixar Animation Studios

Example-Based Dynamic Skinning in Real Time
An approach to enriching skeleton-driven animations with physically based secondary deformation in real time.

Xiaohan Shi
Zhejiang University

Kun Zhou
Microsoft Research Asia

Yiying Tong
Michigan State University

Mathieu Desbrun
California Institute of Technology

Baining Guo
Microsoft Research Asia

Hair and Realistic Rendering

Tuesday, 12 August, 3:45 - 5:30 pm
Room 408 AB

Session Chair/Discussant
Bruce Walter
Cornell University
Hair-RealisticRendering@siggraph.org

Hair Photobooth: Geometric and Photometric Acquisition of Real Hairstyles
This method accurately captures the shape and appearance of a person's hairstyle. The results closely match the real hairstyles and can be used for animation.

Sylvain Paris
Adobe Systems Incorporated

Will Chang, Matthias Zwicker, Wojciech Jarosz
University of California, San Diego

Frédo Durand
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Wojciech Matusik
Adobe Systems Incorporated

Oleg Kozhushnyan
Massachusetts Institute of Technology

Efficient Multiple Scattering in Hair Using Spherical Harmonics
A physically based rendering method that computes multiple scattering solutions in complex hair, including directional effects, and is much faster than previous accurate methods.

Jonathan T. Moon, Bruce Walter, Stephen Marschner
Cornell University

Dual Scattering Approximation for Fast Multiple Scattering in Hair
This method achieves physically based results with interactive frame rates.

Arno Zinke
Universität Bonn

Cem Yuksel
Texas A&M University

Andreas Weber
Universität Bonn

John Keyser
Texas A&M University

Multi-Dimensional Adaptive Sampling and Reconstruction for Ray Tracing
A multi-dimensional adaptive sampling technique for efficient distribution of ray tracing effects such as motion blur and depth of field.

Toshiya Hachisuka, Wojciech Jarosz
University of California, San Diego

Richard Peter Weistroffer, Kevin Dale, Greg Humphreys
University of Virginia

Matthias Zwicker, Henrik Wann Jensen
University of California, San Diego

Real Time Rendering

Wednesday, 13 August, 8:30 - 10:15 am
Hall B

Session Chair/Discussant
Sumanta Pattanaik
University of Central Florida
Real-TimeRendering@siggraph.org

Real-Time, All-Frequency Shadows in Dynamic Scenes
A soft-shadow algorithm that enables constant-time filtering. Its high performance and quality facilitate rendering of all-frequency shadows in dynamic scenes under environment-map illumination.

Thomas Annen, Zhao Dong
Max-Planck-Institut für Informatik

Tom Mertens, Philippe Bekaert
Universiteit Hasselt

Hans-Peter Seidel
Max-Planck-Institut für Informatik

Jan Kautz
University College London

Interactive Relighting of Dynamic Refractive Objects
A new technique for interactive relighting of dynamic refractive objects with complex material properties such as spatially varying refractive index and anisotropic scattering.

Xin Sun
Zhejiang University

Kun Zhou
Microsoft Research Asia

Eric Stollnitz
Microsoft Research

Jiaoying Shi
Zhejiang University

Baining Guo
Microsoft Research Asia

Real-Time Smoke Rendering Using Compensated Ray Marching
A real-time algorithm for rendering smoke under dynamic low-frequency environment lighting.

Kun Zhou, Zhong Ren, Stephen Lin
Microsoft Research Asia

Hujun Bao
Zhejiang University

Baining Guo, Heung-Yeung Shum
Microsoft Research Asia

A Meshless Hierarchical Representation for Light Transport
This hierarchical function basis for light transport is decoupled from the geometric surface representation, allowing algorithms such as PRT to work on complex surfaces hierarchically.

Jaakko Lehtinen
Massachusetts Institute of Technology, Helsinki University of Technology

Matthias Zwicker
University of California, San Diego

Emmanuel Turquin
Université Joseph Fourier Grenoble

Janne Kontkanen
PDI/DreamWorks

Frédo Durand
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

François Sillion
INRIA, Université Joseph Fourier Grenoble

Timo Aila
NVIDIA Research

Model Building

TRANSACTION ON GRAPHICS TECHNICAL PAPERS

Wednesday, 13 August, 8:30 - 10:15 am
Room 408 AB

Session Chair/Discussant
Cindy Grimm
Washington University in St. Louis
ModelBuilding@siggraph.org

Knowledge and Heuristic Based Modeling of Laser-Scanned Trees

Hui Xu
Nathan Gossett
Baoquan Chen
University of Minnesota

Sketching Reality: Realistic Interpretation of Architectural Designs

Xuejin Chen
University of Science and Technology of China

Sing Bing Kang
Microsoft Research

Ying-Qing Xu
Microsoft Research Asia

Julie Dorsey
Yale University

Harry Shum
Microsoft Research Asia

Gesture Modeling and Animation Based on a Probabilistic Recreation of Speaker Style

Michael Neff
University of California, Davis

Michael Kipp
DFKI-German Research Center for Artificial Intelligence

Irene Albrecht
Hans-Peter Seidel
Max-Planck-Institut für Informatik

A Survey of Spatial Deformation From a User-Centered Perspective

James Gain
University of Cape Town

Dominique Bechmann
Université Louis Pasteur Strasbourg I

Faces & Reflectance

Wednesday, 13 August, 10:30 am - 12:15 pm
Hall B

Session Chair/Discussant
Jason Lawrence
University of Virginia
Faces-Reflectance@siggraph.org

Data-Driven Enhancement of Facial Attractiveness

A data-driven approach to enhancing the attractiveness of human faces in frontal photographs while maintaining close similarity to the original.

Tommer Leyvand
Daniel Cohen-Or
Tel Aviv University

Gideon Dror
Academic College of Tel Aviv Yaffo

Dani Lischinski
The Hebrew University

Face Swapping: Automatically Replacing Faces in Photographs

A system for fully automatic face replacement in images. This approach requires no 3D model and generates realistic results across different skin tones, lighting conditions, and viewpoints.

Dmitri Bitouk
Neeraj Kumar
Samreen Dhillon
Peter Belhumeur
Shree Nayar
Columbia University

AppProp: All-Pairs Appearance-Space Edit Propagation

A method for editing the appearance of images and measured materials, in which rough edits are refined by an appearance-space optimization solved with an approximation algorithm derived from matrix sampling.

Xiaobo An
Fabio Pellacini
Dartmouth College

Modeling Anisotropic Surface Reflectance With Example-Based Microfacet Synthesis

An efficient method for capturing and modeling spatially varying anisotropic BRDFs.

Jiaping Wang
Microsoft Research Asia

Shuang Zhao
Shanghai Jiaotong University

Xin Tong
John Snyder
Baining Guo
Microsoft Research Asia

Surface Modeling

TRANSACTION ON GRAPHICS TECHNICAL PAPERS

Wednesday, 13 August, 10:30 am - 12:15 pm
Room 408 AB

Session Chair/Discussant
Hugues Hoppe
Microsoft Research
SurfaceModeling@siggraph.org

Bicubic Polar Subdivision

Kestutis Karciauskas
Vilniaus Universitetas

Jorg Peters
University of Florida

Approximating Catmull-Clark Subdivision Surfaces With Bicubic Patches

Charles Loop
Microsoft Research

Scott Schaefer
Texas A&M University

SOHO: Orthogonal and Symmetric Haar Wavelets on the Sphere

Christian Lessig
Eugene Fiume
University of Toronto

N-Symmetry Direction Field Design

Bruno Levy
Nicolas Ray
Bruno Vallet
Wan-Chiu Li
INRIA – ALICE

Shape Analysis

Wednesday, 13 August, 1:45 - 3:30 pm
Room 408 AB

Session Chair/Discussant
Eitan Grinspun
Columbia University
ShapeAnalysis@siggraph.org

Upright Orientation of Man-Made Objects
This work addresses the problem of computing the upright orientation of 3D standing artificial objects from model geometry alone and provides a highly generalizable solution.

Hongbo Fu
The University of British Columbia

Daniel Cohen-Or
Tel Aviv University

Gideon Dror
The Academic College of Tel Aviv Yaffo

Alla Sheffer
The University of British Columbia

Discovering Structural Regularity in 3D Geometry
A computational framework to discover regular or repeated geometric structures in 3D shapes. By analyzing pairwise similarity transformations in suitable transformation space, the method reveals hidden underlying lattice structures.

Mark Pauly
ETH Zürich

Niloy J. Mitra
Indian Institute of Technology, Delhi

Johannes Wallner
Technische Universität Graz

Helmut Pottmann
Technische Universität Wien

Leonidas Guibas
Stanford University

Skeleton Extraction by Mesh Contraction
A novel and simple skeleton-extraction framework based on Laplacian mesh contraction and connectivity surgery. It is noise- and pose-insensitive, topology preserving, and fully automatic.

Oscar Kin-Chung Au
Chiew-Lan Tai
Hong Kong University of Science and Technology

HungKuo Chu
National Cheng Kung University

Daniel Cohen-Or
Tel Aviv University

Tong-Yee Lee
National Cheng Kung University

Computing Geometry-Aware Handle and Tunnel Loops in 3D Models
An algorithm that computes loops around handles and tunnels of a 3D model. The loops computed by the algorithm are used for feature recognition and topology simplification.

Tamal K. Dey
Kuiyu Li
The Ohio State University

Jian Sun
Stanford University

David Cohen-Steiner
INRIA, Sophia Antipolis

Global Illumination

TRANSACTION ON GRAPHICS TECHNICAL PAPERS

Wednesday, 13 August; 1:45 – 3:30 pm
Room 403 AB

Session Chair/Discussant
Nelson Max
University of California, Davis
Global_Illumination@siggraph.org

Radiance Caching for Participating Media

Wojciech Jarosz
Craig Donner
Matthias Zwicker
Henrik Jensen
University of California, San Diego

A Framework for Precomputed and Captured Light Transport

Jaakko Lahtinen
Helsinki University of Technology

Resolution-Matched Shadow Maps

Aaron Lefohn
Shubhabrata Senqupta
John Owens
University of California, Davis

Logarithmic Perspective Shadow Maps

Brandon Lloyd
University of North Carolina at Chapel Hill

Naga Govindaraju
Microsoft Corporation

Cory Quammen
University of North Carolina at Chapel Hill

Steven Molnar
NVIDIA Corporation

Dinesh Manocha
University of North Carolina at Chapel Hill

Jiggly Fluids

Wednesday, 13 August, 3:45 - 6 pm
Hall B

Session Chair/Discussant
Adam Bargteil
Carnegie Mellon University
JigglyFluids@siggraph.org

Two-Way Coupling of Fluids to Rigid and Deformable Solids and Shells
A novel method for fully implicit solid-fluid coupling that works for smoke, water, and multiphase fluids, as well as rigid and deformable solids and shells.

Avi Robinson-Mosher, Tamar Shinar, Jon Gretarsson, Jonathan Su, Ronald Fedkiw
Stanford University

Fast Viscoelastic Behavior With Thin Features
Simulation of viscoelastic materials using a high resolution surface mesh that is embedded in a frequently re-meshed finite-element simulation.

Christopher J. Wojtan, Greg Turk
Georgia Institute of Technology

Bubbles Alive
A hybrid method for simulating bubbly water, in which the sub-grid visual details can be improved by incorporating a novel bubble model using a SPH-into-Eulerian solver.

Jeong-Mo Hong, Ho-Young Lee, Jong-Chul Yoon, Chang-Hun Kim
Korea University

Porous Flow in Particle-Based Fluid Simulations
A unified particle method for simulation of liquids and liquid-absorbent materials such as cloth and sponges.

Toon Lenaerts
Katholieke Universiteit Leuven

Bart Adams
Stanford University, Katholieke Universiteit Leuven

Phil Dutré
Katholieke Universiteit Leuven

Wavelet Turbulence for Fluid Simulation
A novel wavelet method for simulation of fluids at high spatial resolution. The algorithm is a novel wavelet method for simulation of fluids at high spatial resolution. It allows high-resolution detail to be added as a post-processing step.

Theodore Kim
Cornell University

Nils Thuerey
ETH Zürich

Doug James
Cornell University

Markus Gross
ETH Zürich

Texture

Wednesday, 13 August, 3:45 - 5:30 pm
Room 408 AB

Session Chair/Discussant
Yizhou Yu
University of Illinois at Urbana-Champaign
Texture_Papers@siggraph.org

Multiscale Texture Synthesis
An example-based method for synthesizing textures with spatial features across a large or even infinite range of scales, with both CPU and GPU implementations.

Charles Han
Eric Risser
Ravi Ramamoorthi
Eitan Grinspun
Columbia University

Inverse Texture Synthesis
A method for computing a small texture compaction from a large globally variant texture. Applications of this technique range from fast reconstruction to resynthesis and GPU rendering.

Li-Yi Wei
Microsoft Research

Jianwei Han
Microsoft Research Asia & Zhejiang University

Kun Zhou
Microsoft Research Asia

Hujun Bao
Zhejiang University

Baining Guo
Heung-Yeung Shum
Microsoft Research Asia

Lapped Solid Textures: Filling a Model With Anisotropic Textures
A method for creating large-scale solid objects with spatially varying anisotropy by extending 2D lapped textures to 3D solids using a tetrahedral mesh model.

Kenshi Takayama
Makoto Okabe
Takashi Ijiri
The University of Tokyo

Takeo Igarashi
The University of Tokyo, JST/SORST

Anisotropic Noise
A technique to interactively render noise textures with anisotropic filtering. This approach is faster than procedural noise evaluation, and it provides superior image quality.

Alex Goldberg
Matthias Zwicker
University of California, San Diego

Frédo Durand
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Computational Photography & Display

Thursday, 14 August, 8:30 - 10:15 am
Hall B

Session Chair/Discussant
Wojciech Matusik
Adobe Systems Incorporated
ComputationalPhotography-Display@siggraph.org

Programmable-Aperture Photography: Multiplexed Light-Field Acquisition
A system that includes a novel device called programmable aperture and two associated post-processing algorithms to obtain high-quality light fields.

Chia-Kai Liang
Tai-Hsu Lin
Bing-Yi Wong
Chi Liu
Homer Chen
National Taiwan University

Glare-Aware Photography: 4D Ray Sampling for Reducing Glare Effects of Camera Lenses
This paper shows that glare manifests as an outlier in ray space, and it presents the first "single-shot" approach to classify and reduce it via 4D sampling without light-field reconstruction.

Ramesh Raskar
Amit Agrawal
Cyrus Wilson
Mitsubishi Electric Research Laboratories

Ashok Veeraraghavan
University of Maryland

Light-Field Transfer: Global Illumination Between Real and Synthetic Objects
A method based on projected and acquired light fields that enables interaction between real and synthetic objects, including multiple bounces of global illumination between them.

Oliver Cossair
Shree Nayar
Ravi Ramamoorthi
Columbia University

Towards Passive 6D Reflectance Field Displays
A method for embedding 4D and 6D data into 2D films and employing lenslet arrays so that an observer experiences encoded objects as if they are lit by real-world incident illumination.

Martin Fuchs
Max-Planck-Institut für Informatik

Ramesh Raskar
Mitsubishi Electric Research Laboratories

Hans-Peter Seidel
Hendrik P. A. Lensch
Max-Planck-Institut für Informatik

Perception & Hallucination

Thursday, 14 August, 10:30 am - 12:15 pm
Room 502 B

Session Chair/Discussant
Karol Myszkowski
Max-Planck-Institut für Informatik
Perception-Hallucination@siggraph.org

A Perceptually Validated Model for Surface-Depth Hallucination
A shape-from-shading approach that takes diffuse-lit/flash-lit image pairs and produces a plausible textured height field that can be viewed from any angle under any lighting.

Mashhuda Glencross
The University of Manchester

Gregory Ward
Dolby Canada

Caroline Jay
Jun Liu
Francho Melendez
Roger Hubbold
The University of Manchester

Perception of Complex Aggregates
A psycho-physical investigation of the appearance of aggregates and how the findings can be used to reduce geometric complexity in scenes.

Ganesh Ramanarayanan
Kavita Bala
Cornell University

James Ferwerda
Rochester Institute of Technology

A Perception-Based Color Space for Illumination-Invariant Image Processing
A perception-inspired color space for illumination-invariant image editing.

Hamilton Chong
Steven Gortler
Todd Zickler
Harvard University

Self-Animating Images: Illusory Motion Using Repeated Asymmetric Patterns
A computational method to generate self-animating images from a still image with illusion motion based on a human-motion perception study.

Ming-Te Chi
Tong-Yee Lee
National Cheng-Kung University

Yingge Qu
Tien-Tsin Wong
The Chinese University of Hong Kong

Hair, Rods & Cloth

Thursday, 14 August, 10:30 am - 12:15 pm
Room 408 AB

Session Chair/Discussant
Mark Carlson
DreamWorks Animation SKG
HairRods-Cloth@siggraph.org

Discrete Elastic Rods
A discrete geometric model of thin flexible rods, validated with buckling, stability, knot-tying, and coupled mode experiments.

Miklós Bergou
Columbia University

Max Wardetzky
Freie Universität Berlin

Stephen Robinson
Columbia University

Basile Audoly
Université Paris

Eitan Grinspun
Columbia University

A Mass Spring Model for Hair Simulation
Simulation of many individual interacting hairs using a novel altitude-spring model for twist, a stiction model for hair/hair interactions, and a new, fully linear implicit spring discretization.

Andrew Selle
Michael Lentine
Ronald Fedkiw
Stanford University

Simulating Knitted Cloth at the Yarn Level
A computational model of yarn-level knitted cloth that enables practical simulation of complex knitted garments with costs comparable to rendering and results qualitatively similar to laboratory measurements.

Jonathan M. Kaldor
Doug James
Steve Marschner
Cornell University

Animating Developable Surfaces Using Nonconforming Elements
A new simulator capable of handling exactly developable surfaces that only bend but do not stretch or compress in any direction.

Elliot English
Robert Bridson
The University of British Columbia

Tone & Color

Thursday, 14 August, 1:45 - 3:30 pm
Hall B

Session Chair/Discussant
Ramesh Raskar
Massachusetts Institute of Technology, Media Lab
Tone-Color@siggraph.org

Edge-Preserving Decompositions for Multi-Scale Tone and Detail Manipulation
A new way to construct edge-preserving multi-scale image decompositions. The paper demonstrates their effectiveness for HDR tone mapping, detail enhancement, and other applications.

Zeev Farbman
The Hebrew University

Raanan Fattal
University of California, Berkeley

Dani Lischinski
The Hebrew University

Richard Szeliski
Microsoft Research

Display-Adaptive Tone Mapping
A tone-mapping operator that can minimize contrast distortions for a particular display. Their visibility is validated by a model of the human visual system.

Rafal Mantiuk
Max-Planck-Institut für Informatik, Sharp Laboratories of America

Scott Daly, Louis Kerofsky
Sharp Laboratories of America

Dynamic-Range-Independent Image Quality Assessment
A quality assessment metric that handles image pairs with arbitrarily different dynamic ranges.The metric detects distortions in image structure and evaluates their visibility on any display device.

Tunc O. Aydin, Rafal Mantiuk,
Karol Myszkowski, Hans-Peter Seidel
Max-Planck-Institut für Informatik

Light-Mixture Estimation for Spatially Varying White Balance
A white-balance technique for the two-light scenario, which encompasses many practical configurations such as indoor-outdoor mixed lighting and flash photography.

Eugene Hsu
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Tom Mertens
Universiteit Hasselt

Sylvain Paris
Shai Avidan
Adobe Systems Incorporated

Frédo Durand
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Deblurring & Dehazing

Thursday, 14 August, 3:45 - 5:30 pm
Room 502 B

Session Chair/Discussant
Hendrik Lensch
Max-Planck-Institut für Informatik
Deblurring-Dehazing@siggraph.org

Motion-Invariant Photography
For predominantly 1D motions such as moving the camera in a particular way during the exposure, blur becomes independent of speed, and this method easily removes the effects of subject blur.

Anat Levin
Peter Sand
Taeg Sang Cho
Frédo Durand
William Freeman
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

Single-Image Dehazing
A new method for removing haze given a single input image by decorrelating the shading and transmission functions. This paper demonstrates its usefulness for novel view synthesis and refocusing.

Raanan Fattal
Hebrew University

High-Quality Motion Deblurring From a Single Image
A new single-image deconvolution algorithm that unifies image restoration and blur-kernel estimation to recover high-quality unblurred images and suppress unpleasing ringing artifacts.

Qi Shan
Jiaya Jia
The Chinese University of Hong Kong

Aseem Agarwala
Adobe Systems Incorporated

Progressive Inter-Scale and Intra-Scale Non-Blind Image Deconvolution
A progressive inter-scale and intra-scale non-blind image deconvolution approach that can preserve the image edges and reduce the ringing artifacts, especially for large image blurs.

Lu Yuan
The Hong Kong University of Science and Technology

Jian Sun
Microsoft Research Asia

Long Quan
The Hong Kong University of Science and Technology

Heung-Yeung Shum
Microsoft Research Asia

Folding & Unfolding Surfaces

Thursday, 14 August, 3:45 - 6 pm
Room 408 AB

Session Chair/Discussant
Bruno Levy
INRIA
Folding-UnfoldingSurfaces@siggraph.org

Curved Folding
A computational framework for design and digital reconstruction of surfaces that can be produced by curved folding, a kind of origami that allows folding along smooth curves.

Martin Kilian
Simon Flöry
Technische Universität Wien, Evolute

Zhonggui Chen
Technische Universität Wien, Zhejiang University

Niloy J. Mitra
Indian Institute of Technology, Delhi

Alla Sheffer
The University of British Columbia

Helmut Pottmann
Technische Universität Wien

Freeform Surfaces From Single Curved Panels
Computation with an investigation of the properties of developable strip models, a new semi-discrete surface representation tailored for applications in architecture.

Helmut Pottmann
Technische Universität Wien

Alexander Schiftner
Technische Universität Wien, Evolute

Pengbo Bo
Technische Universität Wien, University of Hong Kong

Heinz Schmiedhofer
Technische Universität Wien

Wenping Wang
University of Hong Kong

Niccolo Baldassini
RFR Paris

Johannes Wallner
Technische Universität Graz

Conformal Equivalence of Triangle Meshes
A method for low-distortion parameterization of triangle meshes based on a new theory of discrete conformal equivalence.

Boris Springborn
Technische Universität Berlin

Peter Schröder
California Institute of Technology

Ulrich Pinkall
Technische Universität Berlin

Green Coordinates
Green coordinates lead to space deformations with a shape-preserving property, and they possess closed-form formulas.

Yaron Lipman
David Levin
Daniel Cohen-Or
Tel Aviv University

Watertight Trimmed NURBS
This paper addresses the long-standing problem of the unavoidable gaps that arise when expressing the intersection of two NURBS surfaces using conventional trimmed-NURBS representation.

Thomas W. Sederberg
G. Thomas Finnigan
Brigham Young University

Xin Li
University of Science and Technology of China

Hongwei Lin
Zhejiang University

Heather Ipson
Brigham Young University

Humans

Friday, 15 August, 8:30 - 10:15 am
Hall B

Session Chair/Discussant
Adrien Treuille
University of Washington
Humans_Papers@siggraph.org

Group-Motion Editing
An intuitive group-motion editing method that allows users to deform and stitch group motions while maintaining as much as possible the neighborhood formations and moving trajectories.

Jehee Lee
School of CSE, Seoul National University

Taesoo Kwon
Kang Hoon Lee
Seoul National University

Shigeo Takahashi
University of Tokyo

Continuation Methods for Adapting Simulated Skills
Continuation methods are used to generalize physics-based walking control to significantly different tasks, such as climbing a large step, or pushing a heavy object.

KangKang Yin
Stelian Coros
Philippe Beaudoin
Michiel van de Panne
The University of British Columbia

Interactive Simulation of Stylized Human Locomotion
Simulating stylized human motions requires customized balance policies. This paper presents an interactive character controller that automatically computes balance policies needed to simulate a desired motion style.

Marco da Silva
Yeuhi Abe
Jovan Popović
Massachusetts Institute of Technology

Musculotendon Simulation for Hand Animation
A general technique for efficient biomechanical simulation of tendons and muscles under the skin. The paper also shows how this can be integrated with traditional keyframe animation and skinning.

Shinjiro Sueda
Andrew Kaufman
Dinesh K. Pai
The University of British Columbia

Shape Acquisition

Friday, 15 August 8:30 - 10:15 am
Room 408 AB

Session Chair/Discussant
Srinivasa Narasimhan
Carnegie Mellon University
ShapeAcquisition@siggraph.org

A System for High-Volume Acquisition and Matching of Fresco Fragments: Reassembling Theran Wall Paintings
A system for capturing images, geometry, and normals of thousands of fresco fragments, suitable for use by nonexperts. An incremental search on 3D edge profiles suggests matches.

Benedict Brown, Corey Toler-Franklin
Princeton University

Diego Nehab
Microsoft Research

Michael Burns
Princeton University

Christos Doumas
National University of Athens, Akrotiri Excavations

Andreas Vlachopoulos
Akrotiri Excavations

David Dobkin, Szymon Rusinkiewicz, Tim Weyrich
Princeton University

4-Points Congruent Sets for Robust Pairwise Surface Registration
Using coplanar 4-points congruent sets, this method develops a fast and robust algorithm for aligning noisy data that is corrupted with outliers, starting in arbitrary initial poses.

Dror Aiger
Ben Gurion University

Niloy J. Mitra
Indian Institute of Technology, Delhi

Daniel Cohen-Or
Tel Aviv University

3D Modeling by Ortho-Image Generation From Image Sequences
Ortho images are automatically generated from image sequences and can be used in the orthographic views of any 3D modeling package to guide the manual modeling process.

Thorsten Thormaehlen, Hans-Peter Seidel
Max-Planck-Institut für Informatik

Fluorescent Immersion Range Scanning
By immersing objects in a fluorescent liquid, this method acquires laser scans regardless of the surface properties. Dark, translucent, and transparent objects can now easily be captured.

Matthias B. Hullin, Martin Fuchs, Ivo Ihrke, Hans-Peter Seidel, Hendrik P. A. Lensch
Max-Planck-Institut für Informatik

NPR & Deformation

Friday, 15 August, 10:30 am – 12:15 pm
Hall B

Session Chair/Discussant
Olga Sorkine
Technische Universität Berlin
NPR-Deformation@siggraph.org

Where Do People Draw Lines?
A study of human line drawings allows characterization of drawn lines by their mathematical surface and image properties, and a direct comparison with existing CG methods.

Forrester Cole
Aleksey Golovinskiy
Alex Limpaecher
Heather Stoddart Barros
Adam Finkelstein
Thomas Funkhouser
Szymon Rusinkiewicz
Princeton University

Structure-Aware Halftoning
An optimization-based halftoning technique that preserves the structure and tone similarities between the original and the halftone images.

Wai-Man Pang
Yingge Qu
Tien-Tsin Wong
The Chinese University of Hong Kong

Daniel Cohen-Or
Tel Aviv University

Pheng-Ann Heng
The Chinese University of Hong Kong

3D Unsharp Masking for Scene-Coherent Enhancement
A coherent, holistic approach for enhancing depiction of surfaces, shadows, and highlights to make renderings used in diagnostics, simulations, navigation, and film creation easier to interpret.

Tobias Ritschel
Kaleigh Smith
Matthias Ihrke
Thorsten Grosch
Karol Myszkowski
Hans-Peter Seidel
Max-Planck-Institut für Informatik

Real-Time Data-Driven Deformation Using Kernel-Canonical Correlation Analysis
A method for learning a surface deformation style from examples and generating novel deformations in real time according to the movements of a set of control points.

Wei-Wen Feng
Byung-Uck Kim
Yizhou Yu
University of Illinois at Urbana-Champaign

Differential Equations

TRANSACTION ON GRAPHICS TECHNICAL PAPERS

Friday, 15 August, 10:30 am – 12:15 pm
Room 408 AB

Session Chair/Discussant
Jos Stam
Autodesk, Inc.
DifferentialEquations@siggraph.org

Level Set Driven Flows

Ruyam Acar

Out-of-Core and Compressed Level Set Methods

Michael Bang Nielsen
Aarhus Universitet

Andreas Soderstrom
Ola Nilsson
Ken Museth
Linköping University

Parallel Algorithms for Approximation of Distance Maps on Parametric Surfaces

Ofir Weber
Yohai Devir
Alexander Bronstein
Michael Bronstein
Ron Kimmel
Technion - Israel Institute of Technology

Computation of Rotation Minimizing Frame

Wenping Wang
The University of Hong Kong

Bert Juttler
Johannes Kepler Universität Linz

Dayue Zheng
Yang Liu
The University of Hong Kong

Painting & Sketching

Friday, 15 August, 1:45 – 3:30 pm
Hall B

Session Chair/Discussant
Matthias Zwicker
University of California, San Diego
Painting-Sketching@siggraph.org

Diffusion Curves: A Vector Representation for Smooth-Shaded Images
This "diffusion curve" primitive for creation of soft gradients and blur in vector graphics, along with an image analysis method, is used to automatically extract diffusion curves from photographs.

Alexandrina Orzan
ARTIS - INRIA Grenoble University

Adrien Bousseau
ARTIS - INRIA Grenoble University, Adobe Systems Incorporated

Holger Winnemoeller
Adobe Systems Incorporated

Pascal Barla
IPARLA - INRIA

Joëlle Thollot
ARTIS - INRIA Grenoble University

David Salesin
Adobe Systems Incorporated, University of Washington

Real-Time Gradient-Domain Painting
An application that allows artists to perform gradient-domain manipulations with real-time feedback in a familiar brush-based way.

James McCann
Nancy Pollard
Carnegie Mellon University

Feedback Control of Cumuliform Cloud Formation Based on Computational Fluid Dynamics
A method for controlling simulation of the cumuliform cloud formation that controls the simulation parameters to generate realistic clouds that form the specified shape.

Yoshinori Dobashi
Katsutoshi Kusumoto
Hokkaido University

Tomoyuki Nishita
The University of Tokyo

Tsuyoshi Yamamoto
Hokkaido University

Shading-Based Surface Editing
A system for free-form surface editing that allows a user to change the appearance of a three-dimensional shape directly by modifying its rendered, shaded image.

Yotam Gingold
Denis Zorin
New York University

Performance Capture

Friday, 15 August, 1:45 – 3:30 pm
Room 408 AB

Session Chair/Discussant
Jehee Lee
Seoul National University
PerformanceCapture@siggraph.org

Data-Driven Modeling for Skin and Muscle Deformation
A data-driven model that reconstructs skin and muscle animation from skeletal motion capture.

Sang Il Park
Sejong University

Jessica Hodgins
Carnegie Mellon University

Articulated Mesh Animation From Multi-View Silhouettes
Non-rigid deformation of an articulated template mesh makes it possible to capture motion of both the skeleton and the shape of a human performer.

Daniel Vlasic
Ilya Baran
Massachusetts Institute of Technology

Wojciech Matusik
Adobe Systems Incorporated

Jovan Popović
Massachusetts Institute of Technology

Performance Capture From Sparse Multi-View Video
A new approach to video-based performance capture that produces spatio-temporally coherent high-quality geometry, lifelike motion data, and (optionally) surface texture of recorded actors.

Edilson de Aguiar
Carsten Stoll
Max-Planck-Institut für Informatik

Christian Theobalt
Stanford University

Naveed Ahmed
Hans-Peter Seidel
Max-Planck-Institut für Informatik

Sebastian Thrun
Stanford University

Markerless Garment Capture
A new method for capturing garments worn by an actor. Unlike previous methods, this approach works for off-the-shelf clothing and does not require specially manufactured garments.

Derek Bradley
Tiberiu Popa
Alla Sheffer
Wolfgang Heidrich
The University of British Columbia

Tamy Boubekeur
Technische Universität Berlin

Procedural Modeling & Design

Friday, 15 August, 3:45 – 5:30 pm
Hall B

Session Chair/Discussant
Claudio Silva
University of Utah
ProceduralModeling-Design@siggraph.org

Automatic Generation of Tourist Maps
An automated system for designing tourist maps that selects and highlights the information that is most important to tourists using a combination of multiperspective rendering and cartographic generalization.

Floraine Grabler, Maneesh Agrawala
University of California, Berkeley

Robert Sumner, Mark Pauly
ETH Zürich

Automated Generation of Interactive 3D Exploded-View Diagrams
A system for automatically generating interactive exploded-view diagrams of 3D models. The views provide both direct and high-level interactive tools for exploring complex objects.

Wilmot Li
University of Washington and Adobe Systems Incorporated

Maneesh Agrawala
University of California, Berkeley

Brian Curless
University of Washington

David Salesin
University of Washington and Adobe Systems Incorporated

Interactive Visual Editing of Grammars for Procedural Architecture
A real-time visual editing paradigm for shape grammars that allows creation of rule bases from scratch without text editing. The method provides direct and persistent local control over models.

Markus Lipp
Technische Universität Wien

Peter Wonka
Arizona State University

Michael Wimmer
Technische Universität Wien

Interactive Procedural Street Modeling
This paper addresses the problem of interactively modeling large street networks. The street networks can be used to create large virtual urban environments.

Guoning Chen, Gregory Esch
Oregon State University

Peter Wonka
Arizona State University

Pascal Mueller
ETH Zürich

Eugene Zhang
Oregon State University

Informal Forums

Exchange insights and information on every aspect of computer graphics and interactive techniques.

Full Conference registration allows attendees access to all SIGGRAPH 2008 Informal Forums. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Informal Forum sessions you wish to attend.

SIGGRAPH and Leonardo: A New Juried Art and Writing Collaboration

Tuesday, 12 August, 10:30 - 11:30 am
Room 502 A

SIGGRAPH and Leonardo are collaborating to begin an annual special issue focused on juried art presented at the conference. This information and Q & A session provides details on the SIGGRAPH 2009 Call for Submission and deadlines, and gives attendees an opportunity to speak with the SIGGRAPH 2009 Arts Director and Leonardo's staff.

Moderator
Rebecca Strzelec
SIGGRAPH 2008 Conference Arts Director

Suspenders of Disbelief

Thursday, 14 August, 8:30 - 10:15 am
Room 505

Session Chair
Wilmot Li
Adobe Systems Incorporated

Rapid Interactive 3D Reconstruction From a Single Still Image
Creating a 3D model from a single still image remains extremely challenging. Recently, Saxena et al. (2005, 2007) proposed machine-learning algorithms that learn the relationship between the image features and depth, so they were able to automatically create 3D models from a single image. However, this approach was successful only on a fraction of images, and it often generated flaws in portions of the model. In this work, the goal was to create an algorithm that allows even inexperienced users to reliably create a 3D model from an image in just a few seconds. The idea is to use a learning algorithm to infer the 3D models but rely on user input where the learning algorithm fails. In preliminary experiments, 1,238 users created good 3D models for 84% of 3,775 images.

Ashutosh Saxena
Nuwan Senaratna
Savil Srivastava
Andrew Y. Ng
Stanford University
asaxena@cs.stanford.edu

Surface Reconstruction From Point Set Using Projection Operator
This work proposes a grid-based algorithm that directly extracts extremal surface geometry, given a smooth vector field and energy function. The key observation that enables this direct construction is that the extremal surface can be considered as the singularity of an oriented vector field, which can be computed directly using a contour-like approach. Using the new method, the authors compare and discuss their key findings about two different vector fields. They also propose a combination of vector fields that will allow the algorithm to generate surfaces with boundaries without the spurious components exhibited by previous approaches.

Ly Phan
Lu Liu
Sasakthi Abeysinghe
Tao Ju
Cindy Grimm
Washington University in St. Louis
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Synthesizing Facial Animation Using Dynamical Properties of Facial Muscle
Muscle-based facial animation is one of the best ways to realize realistic, lifelike characters. This talk reveals an optimal muscle parameter that minimizes the difference between the surface of the actor's face and that of the simulated face. But estimated muscle parameters contain unstable errors because of highly nonlinear behavior in the muscle simulation. The new parameter generates reliable muscle parameters estimated on a frame in which a facial expression has already been represented.

Hiroyuki Kubo
Yasushi Ishibashi
Akinobu Maejima
Shigeo Morishima
Waseda University
hkubo@suou.waseda.jp

Urban Visualization: User-Centered Mapping
Current visualizations of the city do not combine information and urban geometry in a manner that responds to our cognitive processes. Working directly with cognitive scientists, computer scientists, and architects, the authors have been investigating new ways to visualize the city as it relates to our mental representations. The research has investigated theories of urban legibility and summarized possible conceptual approaches to urban form. Through cognitive experiments, they have developed semantic and mental depictions (from sketch maps) from which perceptions of the city are inferred. The goal is user-centered mapping, which combines individualized input with a more generalized description of the city. Instead of providing one map of the city, tourist-information centers could provide a meta map that could adapt to the position and intentions of each user.

Ginette Wessel
Remco Chang
Eric Sauda
University of North Carolina at Charlotte
gmwessel@uncc.edu

Augmented Reality Authoring for Non-Programmers
Demonstration of a tool that enables non-programmers to create dynamic, interactive, augmented-reality environments without code. An artist or designer cannot create AR environments without being, or having access to, a competent programmer. By adding AR marker tracking to Touch Designer by Derivative, this tool improves workflow and enables work that was previously impossible. If artists have easy access to AR, it can become a remix of the urban semioscape.

Rodney Berry
Wei Liu
Janaka Prasad
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Jörg Unterberg
Filmakademie Baden Württemberg

Arnaud Palin Sainte Agathe
Pôle Universitaire Léonard de Vinci I

Adrian Cheok
National University of Singapore & Keio University

Running Wild

Thursday, 14 August, 10:30 am - 12:15 pm
Room 505

Session Chair
Miho Aoki
Artic Region Supercomputing Center, University of Alaska at Fairbanks

The Graph Camera

When the experience of actual locomotion in virtual space is unnecessary, sequential exploration of a 3D scene via interactive navigation can be unnecessarily inefficient and ineffective. The conventional solution is to render the scene in parallel with several stationary cameras. However, this requires many cameras, and there is no continuity between individual images, which requires the user to adapt to a multitude of contexts, one at a time. This non-pinhole camera features rays that circumvent occluders to sample an entire 3D scene. The graph-camera image has a single layer. It is mostly continuous and non-redundant, yet it simultaneously shows all regions of interest in a complex 3D scene. The graph camera enables comprehensive single-image visualization of complex 3D scenes at interactive rates.

Paul Rosen
Voicu Popescu
Nicoletta Adamo-Villani
Purdue University
rosen@purdue.edu

Meros

A modified bicycle tracks the speed and trajectory of its rider, recording the path taken on each ride. As additional riders participate and upload their paths, the concurrent system displays all the paths, which begin to form visual networks of the places visited by all of the riders. The system defines a space not by its geographic boundaries but by how it is used, which yields interesting revelations about spaces we think we already know. Meros uses a stand-alone microprocessor and several rotary encoders to collect and save information about a ride. This simple inclusion of ubiquitous computing is intended to fuel new artistic visualizations in the form of combined line drawings. Clustered lines begin to form narratives and raise questions about rider motives, and they reveal an interesting way of artistically evaluating urban planning for sustainable transportation.

Dylan Moore
Pratt Institute
dmoore3@pratt.edu

A New Look at Ancient Representation: Icon Systems

Icons have been used for millennia to represent concepts from the most deeply religious to the banal, yet little has been done in the recent past to advance icon design to serve the needs of the information age. A University of Cincinnati team has developed numerous methods that enable icons and glyphs to communicate complex and conceptual information with great speed and precision. Systems of icons create their own disambiguating context that refines the precision of communication. Various levels of abstraction and layers upon layers of iconic and graphic form enrich meaning. Animation and interaction expand the iconic vocabulary beyond representation of physical things to description of relationships and actions. Layout systems integrated with iconic representations provide contexts to facilitate sorting, grouping, and organizing activities that facilitate conversion of data into knowledge and knowledge into insight.

Mike Zender
University of Cincinnati
mike.zender@uc.edu

10th Avatar

Our faith in divine power has been challenged many times through the ages. Television's influence is so great that it has left us completely mesmerized. It has become our new form of worship. According to Hindu mythology, an avatar appeared who relieved man's distress and re-established the belief in God and the avatar. Nine incarnations of God or avatars have appeared thus far, and the 10th avatar appeared with the fusion of mass media and formal worship. This animation, "10th Avatar" (which appears in the Competition Screening of the Computer Animation Festival), is the story of the challenge to divine worship as television encroached upon our "idle" time.

Charuvi Agrawal
Sheridan College
charuvi@gmail.com

Panels

Panelists discuss and debate in a free-flowing format that generates consensus, controversy, confusion, and clarity – sometimes simultaneously.

Full Conference registration allows attendees access to all SIGGRAPH 2008 Panels. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Panel sessions you wish to attend.

Studio Views of Student Demo Reels

Tuesday, 12 August, 1:45 - 3:30 pm
Room 406 AB

A distinguished group of industry professionals from various computer animation and visual effects facilities reviews (and Illustrates by example) what they (and their studios) look for when reviewing demo reels and art portfolios of recent graduates. The session addresses demo reels (what to include and what not to include, structure and length, format and design, audio, credits and contact information) and issues related to the job search and application process.

Moderator
Arthur Durinski
Otis College of Art and Design
durinski@otis.edu

As the World Turns: Debating & Examining Online Digital Earth Technologies

Tuesday, 12 August, 3:45 - 5:30 pm
Room 502 B

New geo-visualization tools are changing how people use interactive mapping programs. It is now possible for general users to build their own mash-up visualizations from information available on the web and geo-referenced via digital earth technologies. This panel highlights how these technologies will continue to affect society. Panelists demonstrate their digital earth systems and debate how mapping and connectedness will evolve.

Panelists
Theresa-Marie Rhyne
North Carolina State University
tmrhyne@ncsu.edu

Dean Johnson
Western Michigan University

Don Brutzman
Naval Postgraduate School

Randy Kim
NASA

Michael Jones
Google Inc.

Franz Leberl
Microsoft Virtual Earth

Teaching Computer Animation for Results

Wednesday, 13 August, 8:30 - 10:15 am
Room 406 AB

Success in animation depends on getting the priorities right: knowing what to emphasize and what to put on the back burner. The biggest dilemma we face is "what" to teach in computer animation as opposed to "how" to teach. This is exacerbated by the fact that students prefer to learn the latest 3D animation software tools, because they believe this will compensate for any lack of creative skills. But in reality, the computer amplifies students' limited skills.

This session shares examples of successful education programs at four levels: foundation (Griffith University), undergraduate (Ringling School of Art and Design), graduate (California Institute of the Arts), and industry (Electronic Arts).

Panelists
Craig Caldwell
Griffith University
c.caldwell@griffith.edu.au

Karen Sullivan
Ringling School of Art and Design

Kevin Geiger
California Institute of the Arts

Jack Lew
Electronic Arts

The Convergence of IP Law and Business

Wednesday, 13 August, 10:30 am - 12:15 pm
Room 411

The intersection of intellectual-property law and business from a personal "war-story" perspective. Drawing on their own experiences, panelists explain key business issues relating to IP such as how to prevent employees or consultants from "walking out the door" with IP, how to fashion an effective and strategic patent portfolio, the emergence of "patent trolls" as a potential additional revenue stream, and creative licensing and other IP monetization models.

Moderator
Karl Renner
Fish & Richardson PC

Panelist
Lori Hoberman
Fish & Richardson PC

Related Birds of a Feather Session

Legal and Business Issues Faced by Emerging Companies in the Computer Graphics and Interactive Communities

Wednesday, 13 August, Noon - 1:30 pm
Room 511 A

Megan Sullivan
msullivan@fr.com

35 Years of Computer Graphics: The Game Show!

Wednesday, 13 August, 3:45 - 5:30 pm
Room 403 AB

In this Jeopardy-style game show, each "question" is a classic CG video clip from the SIGGRAPH Video Review archives. Examples of scientific visualization, broadcast, and experimental early work are especially highlighted. Categories include: The (Very) Early Years, Vertically Challenged, Weird Science, Ready, Wlling, Abel, and more.

Moderator
Terrence Masson
Northeastern University
tman@visualfx.com

Games Evolving on an Order of Magnitude

Thursday, 14 August, 8:30 - 10:15 am
Room 408 AB

During initial development of Playstation games, development teams averaged 15 artists, designers, and programmers with three to four technical engineers. For PS2, average project requirements increased to 55 artists, designers, and programmers with a technology team of 20 engineers. Now, for next-generation platforms, developers are seeing asset and team growth of an order of magnitude, but not necessarily the same growth in budgets or timelines.

The greatest challenge now for game developers is to create economies of scale and pipeline efficiencies to accommodate project teams that are currently averaging 100-120 artists, designers, and programmers with 30 technical directors, programmers, and engineers. How do these companies address the complexity of programming and increased demands for quality and quantity of art assets to achieve near-life visuals?

Moderator
Michel Kripalani
Autodesk, Inc.

Panelists
Lyle Hall
THQ Inc.

Martin Walker
Artificial Mind & Movement

Steve Theodore
Bungie, LLC

Steve Sullivan
Lucas Arts

Jeff Lander
Electronic Arts

Roundtables

Informal sessions with free-form discussion among the panelists and audience.

Full Conference registration allows attendees access to all SIGGRAPH 2008 Roundtables. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Roundtable sessions you wish to attend.

Educators Opening Plenary and Café

Monday, 11 August, 10:30 am - 12:15 pm
Room 411

The Educators Opening Plenary and Café is the kick-off session for the SIGGRAPH 2008 Education community. This presentation features an overview of SIGGRAPH 2008 conference sessions, activities, and resources that might be of special interest to educators and their students.

Accompanied by complimentary coffee, tea, and tidbits, several moderators offer mini-previews of their upcoming sessions. This is an excellent opportunity for educators to plan their conference schedules and ask questions that may help them decide which sessions they should not miss.

The session also provides an opportunity for educators to offer their views about what is most useful at the SIGGRAPH conference and from the ACM SIGGRAPH Education program in general, and what they would like to see that isn't currently offered. These views will be carefully considered by both the conference and the organization for future implementation. At the end of the plenary session, educators who want to play a role in future conferences, and in the ACM SIGGRAPH Education program in general, can learn about volunteering opportunities.

Moderator
Rick Barry
Pratt Institute
Chair, ACM SIGGRAPH Education Committee
rick_barry@siggraph.org

Common Needs: Building and Retaining the Talent

Tuesday, 12 August, 3:45 - 5:30 pm
Room 406 AB

When entertainment became a driving force in the SIGGRAPH community, employers were in the driver's seat. Working on a "cool show" meant more than money to many people. Over the last 10 years large production houses have been challenged by commodity hardware and costs have been holding salaries steady. Meanwhile, interactive entertainment has become a significant industry, with more people working there than in visual effects and feature animation. Cheaper talent from abroad is also playing key roles in how companies compensate and retain the top talent.

The larger facilities started in-house training departments to help their artists keep pace with their rapidly evolving tools. The animation houses encourage artistic freedom by supporting employees who want to make short films on ther own time. On the other hand, games and interactive companies emphasized their stability, benefits, and stock options to attract and retain talent.

This roundtable examines these trends. How can they work with facilities and studios to create environments in which both groups are loyal to each other? How can companies treat employees well and stay in business?

Moderator
Evan Hirsch
Microsoft Corporation
evhirsch@microsoft.com

SPECIAL EDUCATION EVENT

SpaceTime Awards

Wednesday, 13 August, 1:45 - 3:30 pm
Room 411

The SpaceTime Student Competition & Exhibition is an annual juried student competition in print, linear animation, and interactivity. It provides an opportunity for students working in computer-based media to exhibit their creative work nationally and internationally. This year, the SpaceTime Student Gallery is located in the ACM SIGGRAPH Village, and it is open to the public every day.

The SpaceTime Student Awards are presented on Wednesday, 13 August, 1:45 pm in Room 411. The award ceremony is moderated by SpaceTime Curator Dena Eber of Bowling Green University, and awards are presented by Jennifer Schmidt of the School of the Museum of Fine Arts, Interactive Curator Scott Dunham of the Creative Energy Alliance, and Animation Curator LiQin Tan of Rutgers University.

Also, on Wednesday, 13 August at 5 pm, a special SpaceTime opening event takes place in the SpaceTime Gallery. It includes a demonstration of a virtual online SpaceTime Student Gallery on Second Life. This virtual gallery is hosted by Otis College of Art & Design, and presented by Michael Wright of Otis.

Roundtable on Lighting for Feature Animation

Thursday, 14 August, 1:45 - 3:30 pm
Room 411

Some of the industry's top lighting creatives and technical artists, who are developing fully CG-animated features, explore issues related to workflow, practical technology applications, resource issues, staffing, art-direction challenges, and other topics in the lighting, rendering, and compositing aspects of production.

This roundtable discussion will be followed by a question-and-answer period.

Moderator
Mark Edwards
DreamWorks Animation
dr.frump@gmail.com

Case Studies in the Ethics of 3D Site Capture

Thursday, 14 August, 3:45 - 5:30 pm
Room 505

Spatial capture remains an active topic in the SIGGRAPH literature, and many capture techniques have been applied in the field of cultural heritage in recent years. In many cases, the data produced at cultural heritage sites by computer graphics researchers represent a high-quality facsimile of the heritage objects under study. This fact has prompted copyright discussions among graphics researchers, archaeologists, and governments. Governments have enacted laws to protect their cultural heritage from computer graphics "theft" and duplication. In extreme cases, researchers have even been barred from entering countries with their capture equipment. This session surveys notable case studies of graphics for cultural heritage and summarizes the issues at stake for computer graphics researchers who want to work in this field.

Moderator
Kevin Cain
INSIGHT
kevin@insightdigital.org

Roundtable on Educational Resources

Thursday, 14 August, 3:45 - 5:30 pm
Room 411

Have you created a new way of teaching, an outstanding course, or an innovative teaching gem for a particular problem? Are you desperately seeking such curricula and materials? Meet other educators at this roundtable organized by the ACM SIGGRAPH Education Committee, learn about their approaches, and share your personal classroom experience with self-made or third-party curricular and instructional resources.

The committee presents its resource projects and opens the floor for lively discussion. Topics include: the peer-reviewed CGEMS (Computer-Graphics Educational Materials Source) and the community-based cgSource, designed to improve educators' resources' and peer recognition. Also in this session: CGEMS jurors honor the best materials in 2008.

Moderators
Frank Hanisch
Peter Weishar
Co-Chairs of Curricular and Instructional Resources, ACM SIGGRAPH Education Committee
frank.hanisch@web.de

Discussants
Gary Birch
Laguna College of Art and Design
Apple Distinguished Educator

Ken Huff
Savannah College of Art and Design

Jack Lew
Electronic Arts

Tony Longson
California State University, Los Angeles

Talks

Talks on the latest work in every aspect of computer graphics and interactive techniques: art, cinema, advertising, design, science, and engineering. Talk presenters summarize speculative breakthroughs, work in progress, and recent achievements. Following their presentations, they answer questions and discuss future implications of their work.

Talk abstracts are presented in the Full Conference DVD-ROM that Full Conference attendees receive with their registration.

Full Conference Access registration allows attendees access to all SIGGRAPH 2008 Talks. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Talks you wish to attend.

Digital Cinematography Techniques

Monday, 11 August, 8:30 - 10:15 am
Hall B

Session Chair
Darin Grant
PDI/DreamWorks

The BLT: a Digital Cinematographer's Control Center
For the production of "Horton Hears a Who," layout artists at Blue Sky Studios pioneered a comprehensive tool to fluidly shoot extremely complex multi-shot sequences in just one all-encompassing 3D scene while auto-tracking extensive, critical-shot data, so they could become cinematographers first and computer jocks second.

Paul Kevin Thomason
Blue Sky Studios
kt@blueskystudios.com

Wall•E's Cinematography
A discussion of the stylistic choices on "Wall•E" and how they were accomplished.

John Warren
Danielle Feinberg
Jeremy Lasky
Pixar Animation Studios
jeremy@pixar.com

"Indiana Jones IV": The Renaissance Artist, A Study in Converging Disciplines
With the latest installment in the Indiana Jones franchise, ILM's extensive melding of live action, blue screens, and entirely synthetic environments takes audiences along for a wild ride.

Pablo Helman
Marshall Krasser
Jeff White
Industrial Light & Magic

Smile for the Camera

Monday, 11 August, 3:45 - 5:30 pm
Room 502 A

Session Chair
Doug DeCarlo
Rutgers University

Extracting Higher-Level Information From Facial Mocap
This talk presents mathematical algorithms for extracting higher-level information from facial motion capture, including automatic regions of influence, maps of affect, and rankings of the perceptual salience of points.

J.P. Lewis
Weta Digital
zilla@computer.org

Ken Anjyo
OLM Digital

Estimating Multi-Layer Scattering in Faces Using Direct-Indirect Separation
How direct-indirect separation on the observed diffuse reflectance of faces can be employed to estimate parameters of a multi-layer subsurface scattering model.

Abhijeet Ghosh
Paul Debevec
USC Institute for Creative Technologies
ghosh@ict.usc.edu

A High-Resolution Geometry Capture System for Facial Performance
A real-time, high-resolution facial performance capture system based on photometric stereo and multi-view stereo. The system captures not only facial muscle deformation but dynamic wrinkles and fine-scale stretching and compression of skin pores during the performance.

Wan-Chun Ma
Andrew Jones
Tim Hawkins
Jen-Yuan Chiang
Paul Debevec
USC Institute for Creative Technologies
alexma98@gmail.com

Dynamic Blue Screens
Synchronization of cameras and analog lighting with high-speed projectors. A fast temporal multiplexing of coded projection and flash illumination enables professional chroma keying and camera tracking results for non-studio movie sets. Calibration is fully automatic.

Anselm Grundhoefer
Oliver Bimber
Bauhaus Universität Weimar
anselm.grundhoefer@medien.uni-weimar.de

Effects Omelette

Tuesday, 12 August, 8:30 - 10:15 am
Room 515 A

Session Chair
Darin Grant
PDI/DreamWorks

Physically Based Depth of Field
A robust 2D post-process depth-of-field algorithm that is physically based and by design produces results that closely approximate true 3D renders.

Jeremy Selan
Sony Pictures Imageworks

John Flynn
Google

Got Snow? Digital Meteorology Effects and Advancements as Used for "The X-Files: I Want to Believe"
Custom pipelines and technology tools advance the art of digital meteorology to allow environments and weather conditions to be radically altered automatically within a scene.

Mat Beck
David Alexander
EntityFX

DrivenShape: A Data-Driven Approach to Shape Deformation
DrivenShape is a technique developed at Rhythm & Hues that reconstructs shape deformations based on precomputed shape relations. Users can efficiently replace expensive simulations of cloth or muscles, or guide such simulations with rapidly generated shapes.

Tae-Yong Kim
Eugene Vendrovsky
Rhythm & Hues Studios
tae@rhythm.com

Golden Compass Auroras
The look-development process for the auroras that appeared briefly at the end of "The Golden Compass."

Nathan Ortiz
Rhythm & Hues Studios

Fracturing in "Indiana Jones 4"
A new artist-directable, fully 3D destruction pipeline developed by ILM for "Indiana Jones and the Kingdom of the Crystal Skull."

Frank Losasso Peterson
Industrial Light & Magic
frankp@ilm.com

Green Scenes

Tuesday, 12 August, 1:45 - 3:30 pm
Room 515 A

Session Chair
Apurva Shah
Pixar Animation Studios

Katana Lighting Pipeline
The architectural concepts and interface features in Katana, Sony Pictures Imageworks' integrated lighting and compositing tool.

Steve LaVietes
Brian Hall
Jeremy Selan
Sony Pictures Imageworks

It's Not Easy Being Green
How a tight integration of rigging, animation, and lighting was the essential component in bringing The Hulk and Abomination characters to life for "The Incredible Hulk."

Hans Rijpkema
Greg Steele
Matt Derksen
Rhythm & Hues Studios
hans@rhythm.com

Shaping, Simulating, and Rendering the Grasses of "Madagascar: Escape 2 Africa"
To cover the expansive grasslands of Africa, DreamWorks Animation developed new tools and work flows to allow our artists to set-dress, simulate, and render this important shot element.

Robyn Rindge
Feng Xie
PDI/DreamWorks
robyn.rindge@pdi.dreamworks.com

Caspian Challenges of the Sequel

Tuesday, 12 August, 3:45 - 5:30 pm
Room 515 A

Session Chair
Darin Grant
PDI/DreamWorks

A Pipeline for 800+ Shots
An outline of the newly developed asset-management system at MPC and its deployment for the pipeline and workflow of 865 VFX shots on "The Chronicles of Narnia: Prince Caspian."

Greg Butler
Hannes Ricklefs
Moving Picture Company
greg-b@moving-picture.com

Aslan and Trufflehunter: Creature Creation, From Follicle to Chronicle
For "The Chronicles of Narnia: Prince Caspian," Framestore created Aslan and Trufflehunter from concept through to final composite, with emphasis on the techniques developed to generate, simulate, and render large volumes of photo-realistic hair.

Ian Comley
Framestore CFC
ian.comley@framestore.com

Raging Waters: The Rivergod of Narnia
This talk presents how the Rivergod in "The Chronicles of Narnia: Prince Caspian" was brought to life by controlling Flowline Fluidsimulations with a classic polygonal character-rig.

Stephan Trojansky
Scanline VFX
troja@scanlinevfx.com

Teaching With Graphics

Wednesday, 13 August, 10:30 am - 12:15 pm
Room 406 AB

Session Chair
Jamie Mohler
Purdue University

Addressing Student and Industry Needs Through Experiential Learning Courses To Better Prepare the Student for Real-World Work Experiences
Incorporating a "real-world" experiential learning curriculum provides students in a graphics degree program a variety of real-world portfolio projects as well as professional experiences before graduation.

Jana Whittington
Kimberly Nankivell
Purdue University Calumet
whitting@calumet.purdue.edu

Building Planet Diggum: A Case Study of Multi-Discipline, Multi-Touch Gaming Collaboration
This talk discusses the interdisciplinary nature of game development and its role in academia by focusing on the development of Planet Diggum, a multi-touch, multi-user game that uses finger and hand gestures to create a kiosk where users can interact with the system without need of training.

Paul Diefenbach
Drexel University
pjdief@drexel.edu

Integrate Experiential Learning to Simulate a Web Site Design Project Process
This project explores a range of teaching and learning experiences stemming from the application of an experiential learning approach to design education in the field of web-site design development.

Mei-Fen Chen
Robert Morris College
mchen@robertmorris.edu

Building a 3D Computer Graphics Program for Secondary Education
An overview and analysis of a three-year pilot program for teaching 3D computer graphics in a secondary education environment.

Linda Neuhaus
Porterville Unified School District
lneuhaus@portervilleschools.org

Particle Man

Wednesday, 13 August, 10:30 am - 12:15 pm
Room 502 A

Session Chair
Nafees Bin Zafar
Digital Domain

Tackling Computer Graphics Clouds in "Madagascar: The Crate Escape"
Techniques developed at PDI/DreamWorks to create computer-generated clouds used throughout the animated feature "Madagascar: The Crate Escape."

Laurent Kermel
Fangwei Lee
Joon Talk Song
Scott Peterson
PDI/DreamWorks
laurent.kermel@pdi.dreamworks.com

Art Directing Particle Flows With Custom Vector Fields
With custom vector fields users can art direct the output from physically based simulations and gain greater control and faster feedback.

Gordon Chapman
Rhythm & Hues Studios
gchapman@rhythm.com

Snow Avalanche Effects for "Mummy 3"
The production process for avalanche shots for the upcoming movie "Mummy 3."

Tae-Yong Kim
Lucio Flores
Rhythm & Hues Studios
tae@rhythm.com

Golden Compass Daemon Deaths
The many layers of fluids, particles, and look development for the transformation of daemons into dust in "The Golden Compass."

Scott Townsend
Eric Horton
Rhythm & Hues Studios

Measurement & Textures

Wednesday, 13 August, 1:45 - 3:30 pm
Room 406 AB

Session Chair
Mark Elendt
Side Effects Software Inc.

Coded Aperture Projection

Integration of coded apertures with off-the-shelf projectors to increase their focal depth. The regional defocus of the projection on the surface is measured. The projection is then deconvolved with locally scaled aperture codes. This leads to significantly better results than deconvolving with Gaussians when regular apertures are used.

Max Grosse, Oliver Bimber
Bauhaus Universität Weimar
Max.Grosse@medien.uni-weimar.de

Evaluation of Tone Mapping for Multi-Band High-Dynamic-Range Images

To develop tone-mapping techniques that reproduce multi-band high-dynamic-range images in actual color, the authors conducted a subjective and objective evaluation experiment by using images that applied some existing tone-mapping operators.

Junko Kishimoto, Masahiro Yamaguchi, Nagaaki Ohyama
Tokyo Institute of Technology
jey77@mbf.ocn.ne.jp

Lace Curtain: Measurement of BTDF and Rendering of Woven Cloth

A rendering method for transparent fabrics based on a BTDF model, which consists of two components – diffusional and directional transmission – defined by the Henyey-Greenstein function. The adequacy of the obtained BTDF model was verified by comparing with the results of rendering using the measured BTDFs.

Hitoshi Uno
Kwansei Gakuin University
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Yoshiki Mizushima, Noriko Nagata
Kwansei Gakuin University

Yoshiyuki Sakaguchi
Digital Fashion Ltd.

Polynomial Wavelet Trees for Bidirectional Texture Functions

Polynomial Wavelet Tree is a new compression scheme for BTFs, based on separation of directional and spatial variations. Textures (spatial variations) are decomposed using wavelets, and the resulting light-dependent coefficients are fitted on a polynomial approximation. The method is suitable for rendering on GPU.

Jerome Baril, Christophe Schlick
Université Bordeaux
baril@labri.fr

Tamy Boubekeur
Technischen Universität Berlin

Patrick Gioia
Orange Labs, Rennes

Dancing With Computers & Technology

Wednesday, 13 August, 1:45 - 3:30 pm
Room 502 B

Session Chair
Joanna Berzowska
Concordia University

Echo Locations

The echo locations project is a series of site-specific installations that use motion sensing to invite observers to slow down, pay attention, and be still long enough for ghostly images to form of how people have moved through the site in the past.

Kirk Woolford
Lancaster University
k.woolford@lancaster.ac.uk

Carlos Guedes
Instituto Politécnico de Castelo Branco

re(PER)curso: A Video Art Realization of an Interactive Plot

re(PER)curso is a mixed-reality performance in which the physical and the virtual become one: we must believe that there are more dimensions connected to our existence and experience than time and space. This multimedia chronicle shows that virtual dimensions that construct experience.

Anna Mura
Universitat Pompeu Fabra
amura@iua.upf.edu

Choreographisms

A multidisciplinary project that aims to combine techniques from computer graphics, vision, and animation with applications in contemporary dance, stage design, and art.

Alice Bodanzky
Silvia Steinberg
Universidade do Estado do Rio de Janeiro
alicebodanzky@gmail.com

Julio Martins
Ilana Paterman
Luiz Velho
Instituto Nacional de Matemática Pura e Aplicada

Analivia Cordeiro

Machines and Monsters: Tippett and ILM Reveal the Secrets Within "Cloverfield" and "Iron Man"

Wednesday, 13 August, 1:45 - 3:30 pm
Hall B

Session Chair
Jeff Han
New York University

"Cloverfield": The Evolution of a Character

Tippett Studio's team completed dramatic and complex visual effects shots involving the monster, the deadly parasites, and a series of digital environments.

Eric Leven
Devin Breese
Chris Morley
Tippett Studio

Digital Costuming and Virtual Backgrounds on "Iron Man"

For Jon Favreau's blockbuster, "Iron Man," ILM artists set a new standard in seamless integration of photo-real digital costuming and virtual environments.

Ben Snow
Hal Hickel
Doug Smythe
Industrial Light & Magic

Geometry

Wednesday, 13 August, 3:45 - 5:30 pm
Room 406 AB

Session Chair
Ariel Shamir
Efi Arazi School of Computer Science

Self-Organizing Primitives for Shape Composition Based on Chemotaxis and Genetic Programming
Self-organizing 2D geometric primitives (called morphogenic primitives) based on the living-cell phenomenon of chemotaxis and supported by genetic programming. These primitives support definition of local interactions that direct simple primitives to aggregate into user-defined, complex, macroscopic shapes.

David Breen
Linge Bai
Manolya Eyiyurekli
Drexel University
david@cs.drexel.edu

Eccentric Radial Basis Functions and Applications
A simple yet powerful extension of radial basis functions that introduces eccentricity into distribution of the function values to widen the range of expression in its various applications such as approximation of functions, fitting of scattered data, and modeling with eccentric metaballs.

Yoshihiro Kanamori
Tomoyuki Nishita
The University of Tokyo
pierrot@nis-lab.is.s.u-tokyo.ac.jp

Eiji Takaoki
META Corporation Japan

Shading With Apparent Relief
A solution that extracts continuous shape information to provide easy control and that introduces shape depiction to a large range of shading styles, from counter shading and cell shading to exaggerated shading.

Romain Vergne
INRIA Bordeaux Sud-Ouest & Université Bordeaux
romain.vergne@labri.fr

Pascal Barla
Xavier Granier
INRIA Bordeaux Sud-Ouest

Transferring Surface Data Across Geometric Models in a Digital Production Environment
A framework for transferring surface data across geometric models for a wide range of complex scenarios that occur in digital-production environments.

Kiran Bhat
Cary Phillips
Industrial Light & Magic
kbhat@ilm.com

To Trace or Not To Trace

Wednesday, 13 August, 3:45 - 5:30 pm
Room 502 B

Session Chair
Dan Wexler
NVIDIA Corporation

Compact, Fast, and Robust Grids for Ray Tracing
This talk revisits the grid-acceleration structure for ray tracing and introduces a compact grid representation, a hashed grid representation, and a more robust grid-traversal algorithm.

Ares Lagae
Philip Dutré
Katholieke Universiteit Leuven
ares.lagae@cs.kuleuven.be

An Interactive System for Realistic Rendering of Large-Scale Terrains
An interactive rendering system for large-scale terrains in which shadows and illumination due to both direct sunlight and skylight, as well as atmospheric scattering effects, are taken into account to improve the realism of the synthetic images.

Yoshinori Dobashi
Hokkaido University
doba@nis-ei.eng.hokudai.ac.jp

Image-Space Horizon-Based Ambient Occlusion
A per-pixel ambient occlusion approximation is computed in a post-processing pass by sampling a depth buffer and its associated normal buffer, and integrating the occlusion between the tangent plane and a horizon line around every surface point.

Louis Bavoil
Miguel Sainz
Rouslan Dimitrov
NVIDIA Corporation
lbavoil@nvidia.com

Fast Area Light Shadows With Pismo
An efficient method of sampling multiple depth maps to produce a smooth and accurate approximation to an area light shadow.

Ivan Neulander
Rhythm & Hues Studios
ineula@gmail.com

Many Things

Wednesday, 13 August, 3:45 - 5:30 pm
Room 515 A

Session Chair
Jonathan Gibbs
PDI/DreamWorks

Shading the Many: Cute Solutions for Shading Crowd Characters on Pixar's "Wall•E"
Over 200 unique human and robotic characters, a high artistic standard, a dizzying suite of tools, and a limited budget: the hurdles of shading crowds on "Wall•E" demanded clever thinking. This is an example of cute ideas and smart pipeline decisions to manage the complexity of shading crowds.

Maxwell Planck
Stephan Bugaj
Pixar Animation Studios
mplanck@alum.mit.edu

Beyond Procedurally Modeled Foliage in "Madagascar: Escape 2 Africa"
To capture the very distinct and stylized art direction of the environment in "Madagascar 2," the production team developed a new method of modeling vegetation, which effectively combines the benefits of procedural growth and control of hand modeling.

Jeffrey Budsberg
Scott Peterson
PDI/DreamWorks
jbudsberg@gmail.com

AI Cars for Speed Racer
How do you animate 40 race cars at speeds above 300 miles an hour for several hundred shots on tracks that defy physics? Off-the-shelf car simulators don't even come close to fulfilling those requirements, so these fuzzy-logic-brained cars were designed to solve the problem. Digital Domain built a highly automated, but still art-directable system inside Massive's award-winning toolkit to create cars that move just like the hand-animated ones in every maneuver, from barrel rolls to drifting.

Brad Herman
DreamWorks Animation (Formerly of Digital Domain)
brad.herman@gmail.com

Brain Springs: Fast Physics for Large Crowds on "Wall•E"
To meet the challenge of bringing to life dynamic crowds, Pixar implemented a fuzzy-logic-based spring physics system in Massive, which was adapted to drive skeletal chains and keyframe-animated motion cycles. The performance was fast enough to scale well for large crowds and maintain interactivity for previews.

Paul Kanyuk
Chris Lawrence
Pixar Animation Studios
pkanyuk@gmail.com

UIST Reprise

Thursday, 14 August, 8:30 - 10:15 am
Room 502 B

Session Chair
Daniel Wigdor
Microsoft Surface

Gestures Without Libraries, Toolkits or Training: A $1 Recognizer for User Interface Prototypes

Jacob O. Wobbrock
University of Washington

Andrew D. Wilson
Microsoft Research

Yang Li
University of Washington

[Wobbrock, J. O., Wilson, A. D., and Li, Y. 2007. Gestures Without Libraries, Toolkits or Training: a $1 Recognizer for User Interface Prototypes. Pages 159-168. DOI= http://doi.acm.org/10.1145/1294211.1294238]

Eyepatch: Prototyping Camera-Based Interaction Through Examples

Dan Maynes-Aminzade
Terry Winograd
Stanford University

Takeo Igarashi
University of Tokyo

[Maynes-Aminzade, D., Winograd, T., and Igarashi, T. 2007. Eyepatch: Prototyping Camera-Based Interaction Through Examples. Pages 33-42. DOI= http://doi.acm.org/10.1145/1294211.1294219]

Bubble Clusters: An Interface for Manipulating Spatial Aggregation of Graphical Objects

Nayuko Watanabe
Toshiba Corporation

Motoi Washida
Takeo Igarashi
The University of Tokyo

[Watanabe, N., Washida, M., and Igarashi, T. 2007. Bubble Clusters: An Interface for Manipulating Spatial Aggregation of Graphical Objects. Pages 173-182. DOI= http://doi.acm.org/10.1145/1294211.1294241]

Full citations for UIST Reprise Talks are available:
In Proceedings of the 20th Annual ACM Symposium on User Interface Software and Technology (Newport, Rhode Island, USA, October 7 - 10, 2007). UIST '07. ACM, New York, New York.

Ride, Watch, and Learn

Thursday, 14 August, 1:45 - 3:30 pm
Room 406 AB

Session Chair
Neel Joshi
University of California, San Diego

Artistic Expression Using Second Life in the Classroom

Second Life provides numerous educational opportunities in the arts including the teaching of machinima, unique exhibition and critique opportunities, and immersive art installations.

Bonnie Mitchell
Anthony Fontana
Dena Eber
Bowling Green State University
bonniem@bgsu.edu

Bikeware

A networked bicycle that can be asynchronously raced in urban space. Users seek the fastest routes for their commutes. Any road in the city can become a "race course." Through the Bikeware courses, users experience new social relationships and urban lifestyles in existing urban infrastructure, without architectural or political challenges.

Shunpei Yasuda
Fumitaka Ozaki
Hiroshi Sakasai
Shino Morita
Naohito Okude
Keio University
shunp@sfc.keio.ac.jp

Bird Watching 2005-2007

Bird Watching is an interactive installation created to comment on the invisible presence of space satellites and their data transmissions. It tracks satellites as they pass over the installation to explore three themes: remote sensing, amateur science, and the cultural politics of identity.

Kathy Marmor
University of Vermont
kmarmor@uvm.edu

Let's Get Physical

Thursday, 14 August, 1:45 - 3:30 pm
Room 502 B

Session Chair
Ken Museth
Digital Domain

Laughing Out Loud

A novel technique for generating animation of laughter for a character, including a method for automatically creating an animation from a soundtrack of an individual laughing.

Paul DiLorenzo
Victor Zordan
Benjamin Sanders
University of California, Riverside
pdiloren@cs.ucr.edu

Real-Time Hair Simulation and Rendering On the GPU

Techniques for simulating and rendering realistic hair entirely on the GPU in real time.

Sarah Tariq
Louis Bavoil
NVIDIA Corporation
stariq@nvidia.com

Massive Particles: Particle-Based Simulations on Multiple GPUs

Particle-based simulations are parallelized on multiple GPUs. Each GPU dynamically manages data. The sliced grid and a sort utilizing temporal coherency were introduced to lower the traffic and increase the performance. The speed scales to the number of GPUs, and more than 300K particles were simulated in real time.

Takahiro Harada
Havok
takahiroharada@gmail.com

Smash That Car: Using Cloth Simulation to Crush Metals

Processes and technologies developed to simulate such catastrophic events as car crashes for use in VFX production of the "Incredible Hulk."

Tae-Yong Kim
David Horsley
Rhythm & Hues Studios
tae@rhythm.com

The Future of Art

Thursday, 14 August, 3:45 - 5:30 pm
Room 406 AB

Session Chair
Linda Lauro Lazin
Pratt Institute

Newtoon: Learning Science Socially Through Cell-Phone Game Creation
Newtoon is a mobile phone and web activity that enables young people to create and play mobile phone games and learn physics at the same time.

Clara Lemon
Futurelab
clara.lemon@futurelab.org.uk

Virtual Heritage: Exploration, Documentation, and Time Travel
Results of an image-based modeling technology applied to preservation of Greek metopes, Dutch paintings, Medieval castles, and Renaissance architecture. They show how large-scale architecture and small-scale art objects were captured with precise geometry and texture for easy accessibility to our digital culture.

Sabry El-Hakim
Jean-Francois Lapointe
National Research Council of Canada
Sabry.El-Hakim@nrc-cnrc.gc.ca

Emily Whiting
Massachusetts Institute of Technology

Creating Ceramic Art Using Rapid Prototyping
Creation of original pottery and ceramic sculpture on a rapid prototyping machine without using molds or other traditional methods. This is a revolutionary step that will have conceptual and practical applications in both ceramic and digital art.

John Balistreri
Sebastien Dion
Bowling Green State University
balistr@bgsu.edu

Skorpions: Kinetic Electronic Garments
Skorpions are kinetic electronic garments that integrate Nitinol (a shape-memory alloy) and custom electronics to move and change on the body in slow, organic motions. They can be imagined as parasites that inhabit the skin of the host. They breathe and pulse, controlled by their own internal programming.

Joanna Berzowska
Concordia University
joey@berzowska.com

Fire, Fur, and Fluid

Thursday, 14 August, 3:45 - 5:30 pm
Hall B

Session Chair
Andrew Glassner

Fire Simulation and Rendering in "Beowulf"
The pipeline and techniques used to create volumetric fire, from torches to entire burning cities, in several hundred shots on the animated feature film "Beowulf."

Magnus Wrenninge
Sony Pictures Imageworks
magnus.wrenninge@gmail.com

Countless Characters and Clovers: Interpreting Dr. Seuss' Style With 3D Fur
Interpreting the art of Dr. Seuss with 3D fur and fx for the computer-animated feature "Horton Hears a Who!" extended Blue Sky's ray-traced voxel technology to address scope and complexity for a variety of challenges, from furry clothes for thousands of whos, to vast windswept fields of clovers.

Eric Maurer
Sean Palmer
Alen Lai
Jamie Williams
Blue Sky Studios
ericm@blueskystudios.com

Atmos: A System for Building Volume Shaders
An extensible system for building volume shaders from modular components, illustrated with examples of volumetric effects produced for the film "Wall•E," including procedural, fluid-based, and particle effects.

Ferdi Scheepers
Alexis Angelidis
Pixar Animation Studios
ferdi@pixar.com

Lions + Whos + Hulks, Oh My!

Friday, 15 August, 10:30 am - 12:15 pm
Room 403 AB

Session Chair
Dana Boadway
Killerjellybean Animation

A New Approach to Procedural Character Rigs
For the large number of extremely expressive characters in "Horton Hears a Who," Blue Sky Studios designed a new procedural approach to rigging that separates the aesthetics of refining deformation from the technique of providing functionality, fully involving both technical director and animator in each character's performance.

Stephen Unterfranz
Scotty Sharp
Erik Malvarez
Blue Sky Studios
unter@blueskystudios.com

Art-Directable Dynamic Hair Shells in "Madagascar: Escape 2 Africa"
A new technique for stylized hair setups that emphasizes the preservation of silhouette and volume while still providing realistic dynamic motion and direct control of generated shape.

Stephan Osterburg
Nathaniel Dirksen
Rob Vogt
PDI/DreamWorks
Stephan.Osterburg@pdi.dreamworks.com

Merging Bipedal and Quadrupedal Functionality Into One Rig
The challenges and solutions associated with creating one rig that can be animated as both a bipedal and quadrupedal character for "Madagascar: Escape 2 Africa."

Milana Huang
Rex Grignon
Robert Vogt
PDI/DreamWorks
milana.huang@pdi.dreamworks.com

Don't Make Me Angry...
How the full CG transformation from the human-sized Bruce Banner to the monster-sized Incredible Hulk was done for "The Incredible Hulk" using a single rig for the animator.

Hans Rijpkema
Matt Derksen
Dante Quintana
Rhythm & Hues Studios
hans@rhythm.com

Science in 3D

Friday, 15 August, 1:45 - 3:30 pm
Room 502 A

Session Chair
Dave Shreiner
ARM Ltd.

Visualizing Ultra-Scale Data
A summary of the agenda and progress made by the Ultravis Institute, the largest investment made by the U.S. Department of Energy in basic research to advance visualization technology to enable knowledge discovery and dissemination for extreme-scale scientific applications.

Kwan-Liu Ma
University of California, Davis
ma@cs.ucdavis.edu

Surgical Planning Using 3D Medical Imaging, Scientific Visualization, and Anatomic Illustration
This presentation examines the intricate details of the visual preparation involved in the surgical-planning process used to separate conjoined twins.

Robert Morreale
Michael King
Jane Matsumoto
Christopher Moir
Richard Robb
Kevin Bennet
Mayo Clinic
morreale.robert@mayo.edu

Atta Texana Leafcutting Ant Colony: A View Underground
The Atta-metter project maps tunnels and chambers of a vast leafcutting ant colony. An 8-meter x 8-meter ground-penetrating-radar scan was translated into a 3D model that can be viewed on an immersive visualization system, scaling the viewer to ant size.

Carol LaFayette
Fred Parke
Texas A&M University
lurleen@viz.tamu.edu

Carl J. Pierce
Geophysics, Saint Lawrence University

Tatsuya Nakamura
Starz Animation

Lauren Simpson
Texas A&M University

Rigging Outside the Box

Friday, 15 August, 1:45 - 3:30 pm
Room 403 AB

Session Chair
Nathan Loofbourrow
DreamWorks Animation

Animating With Simulation in "Wall•E": Controllable Volume Response for Characters
A system that allows for layering of a fast volumetric simulation for body jiggle atop animation's hand-crafted poses and silhouettes. Animators use intuitive controls to determine how the simulation behaves and interacts with other objects.

Gordon Cameron
Geoffrey Irving
Ryan Kautzman
Jiayi Chong
Pixar Animation Studios
gocam@pixar.com

Large-Scale Foliage Animation for "The Ruins"
A practical approach to animating foliage attached to the main "vine" character in the feature film "The Ruins." This layered animation toolkit allowed the production team to mix bone animation derived from various sources, including key-frame animation and simulation-driven vertex animation.

Carsten Kolve
Christoph Sprenger
Fred Chapman
Malcolm Humphreys
Rising Sun Pictures
carsten.kolve@rsp.com.au

Optimized Multi-Strand Beard Setup for "Shrek the Halls"
A poseable dynamic system for animating long beards was developed for "Shrek the Halls." A reduced number of beard strands was simulated, and their motion was propagated to the entire beard. This talk summarizes how beard and skin are attached, and how a fake beard motion behavior was achieved.

Lucia Modesto
PDI/DreamWorks
lucia@pdi.co

Daniel Dawson
Kickstand LLC

Offset Curve Deformation From Skeletal Animation
A technique for model deformation driven by skeletal animation. The deformed position of each model point is computed on a unique offset curve computed from artist-supplied influence curves.

Arthur Gregory
Dan Weston
Sony Pictures Imageworks
arthurgregory@pobox.com

Bend Me Break Me

Friday, 15 August, 3:45 - 5:30 pm
Room 403 AB

Session Chair
Andy Hendericksen
Walt Disney Animation Studios

Rope Bridge Animation System in "Kung Fu Panda"
The system used to animate a rope bridge in "Kung Fu Panda" and how its hierarchical rig and was combiined with a FX procedural tool to simulate the dynamics.

Amaury Aubel
Mitch Cockerham
Matt Steele
DreamWorks Animation
amaury.aubel@dreamworks.com

Sven Pohle
PDI/DreamWorks

Procedural Fracturing and Debris Generation for "Kung-Fu Panda"
A controllable, procedural method for fracturing a model into debris and a system for automatic and targeted generation of secondary debris when the large pieces collide or break apart.

Lawrence Lee
Nikita Pavlov
DreamWorks Animation
lawrence.lee@dreamworks.com

Making Statues Move
A visual-effects technique for transforming statues of creatures made of stone, metal, or clay into living creatures while retaining a statue-like appearance.

Jason Bayever
Rhythm & Hues Studios

CrackTastic: Fast 3D Fragmentation in "The Mummy 3"
CrackTastic employs novel data structures and algorithms to perform massive fragmentations of solid geometry in minutes instead of the hours or even days required for fully manual or physics-based alternatives.

Ken Museth
Digital Domain
museth@acm.org

Days & Hours

Monday, 11 August	8:30 am - 5:30 pm	
Tuesday, 12 August	8:30 am - 5:30 pm	
Tuesday, 12 August	12:15 - 1:15 pm	Poster Sessions
Wednesday, 13 August	8:30 am - 5:30 pm	
Thursday, 14 August	8:30 am - 5:30 pm	
Thursday, 14 August	12:15 - 1:15 pm	Poster Sessions
Friday, 15 August	8:30 am - noon	

Location

Outside Rooms 404, 406, 408, 409 & 411
West Tower Lobby

Posters

Graphic displays of incremental, preliminary, partial, and innovative insights that are important but not fully developed. Posters are displayed throughout the conference week, and presenters discuss their work in scheduled sessions.

During Poster Sessions, authors stand by their posters to talk with attendees and demonstrate their work. See above for days and hours.

Poster Categories & Locations

For a visual reference, see the Los Angeles Convention Center map on page 164 for the poster locations.

Animation ***A100 - A112***
West Tower Lobby, Outside Room 103

Art ***B113 - B126***
West Tower Lobby

Design ***B127 - B141***
West Tower Lobby

Hardware ***F215 - F228***
Concourse Upper Level, Outside 408

Image/Video Processing ***F229 - F245***
Concourse Upper Level, Outside 408

Interaction ***B142 - B170***
West Tower Lobby

Modeling ***D207 - D214***
Concourse Upper Level, Outside 409 & 411

Rendering ***C200 - C206***
Concourse Upper Level, Outside 411

Virtual/Augmented Reality ***B171 - B178***
West Tower Lobby

Visualization ***G246 - G256***
Concourse Upper Level, Outside 404 & 406

Animation

A100
3D Facial Animation From High-Speed Video
Takanori Suzuki, Yasuahi Ishibashi, Hiroyuki Kubo, Akinobu Maejima, Shigeo Morishima
Waseda University
takanori@asagi.waseda.jp

A101
A Feedback Control System for Desired Deformation of Cloths by Time-Varying Stable Forms
Motofumi Hattori, Ryo Asakura, Ippei Takauchi
Kanagawa Institute of Technology
hattori@ic.kanagawa-it.ac.jp

A102
Controllable Motion Textures
Tse-Hsien Wang, Chun-Tse Hsiao. Bing-Yu Chen
National Taiwan University
robin@ntu.edu.tw

Pei-Zhi Huang
Digimax

A103
Delhaize Christmas 2007
Jean-François Bourrel
Chez Eddy
jeff@chezeddy.com

A104
Interactive Simulation of Fluid Motion for Particle Systems
Michael Jason Gourlay
University of Central Florida
mgourlay@fiea.ucf.edu

A105
Lips-Sync 3D Speech Animation
Fu-chung Huang, Bing-Yu Chen, Yung-Yu Chuang
National Taiwan University
robin@ntu.edu.tw

Shuen-Huei Guan
Digimax

A106
Motion Capture for Everyone
Hernando Ortega-Carrillo
IIMAS, Universidad Nacional Autónoma de México
hernando@sigma.iimas.unam.mx

A107
Motion Tracking of Time-Varying Mesh Through Surface Gradient Matching With Multi-Temporal Registration
Ning Sung Lee
Toshihiko Yamasaki
Kiyoharu Aizawa
The University of Tokyo
ning.sung@hal.t.u-tokyo.ac.jp

A108
Physics-Based Modeling of Ice With Bubbles
Carlos Madrazo Pimienta, Minoru Okada
Waseda University
carlos@akane.waseda.jp

A109
Real-Time Simulation of an Hour Glass Based on Granular Dynamics
Ren Yasuda
University of Tokyo
4steps@live.jp

A110
Texture-Map-Based Sound Synthesis in Rigid-Body Simulations
Kimiko O. Schmidt.
John David N. Dionisio
Department of Electrical Engineering & Computer Science,
Loyola Marymount University
kimiko.o.schmidt@gmail.com

A111
Unified SPH Model for Fluid-Cloth Simulations
Toon Lenaerts, Philip Dutré
Katholieke Universiteit Leuven
toon.lenaerts@cs.kuleuven.be

A112
YS-3: Multi-Layered Interactive Animation Device
Yu Sudo
Keio University
yes@sfc.keio.ac.jp

Art

B113
Archidemo – Architecture in Metaverse
Hidenori Watanave
Photon
derin@photon01.co.jp

B114
Automatically Adding Seam Allowance to Cloth Pattern
Yuki Igarashi, Takeo Igarashi, Hiromasa Suzuki
The University of Tokyo
yukim@acm.org

B115
Cloud 21
Leigh McLoughlin
Bournemouth University
lmcloughlin@bournemouth.ac.uk

B116
Constellation: Perception Morphing by Point Animation
Jun Fujiki, Taketoshi Ushiama, Reiji Tsuruno, Kiyoshi Tomimatsu
Kyushu University
jun_fujiki@hotmail.com

B117
Creating Ceramic Art Using Rapid Prototyping
John A. Balistreri, Sebastien Dion
Bowling Green State University
balistr@bgsu.edu

B118
Cross-Being: Dancer (The Spinning Screen)
Hyun Jean Lee, Ali Mazalek
Georgia Institute of Technology
hyunjean@gmail.com

B119
D.I.Y. Technology for Mothers and Kids
Ji Sun Lee
New York University
sun.neofuture@gmail.com

B120
Heaven's Mirror: Mirror Illusion Realized Outside of the Mirror
SeungHyun Woo, Takahumi Aoki, Hironory Mitake, Naoki Hashimoto Makoto Sato
Tokyo Institute of Technology
Stamwoo@hi.pi.titech.ac.jp

B121
Information Overload: A Collaborative Multimedia Dance Performance
Lauren Elizabeth Mandilian
Drexel University
lauren@mandilian.com

B122
Japanese Text Transmigration Presentation
Rikiya Tajiri
Kyushu University
tajiriki@gmail.com

B123
Lumi-Breath: Flow of Energy
Jinsil Seo, Diane Gromala
Simon Fraser University
jinsils@sfu.ca

B124
Moons Over You
Hyun Jean Lee, Chih-Sung Wu, Yang Ting Shen, Ali Mazalek
Georgia Institute of Technology
hyunjean@gmail.com

B125
Powered by MISC (Modular Imaging Scenes)
Dan Amzallag
dan@rpons.com

B126
Public Media Interfaces for Urban Spaces
Orkan Telhan
MIT Mobile Experience Lab
otelhan@mit.edu

Judith Donath
MIT Media Lab

Design

B127
A Modified Dipole Approximation Considering Optical Depth to Represent Translucent Materials
Hoe-Min Kim, Ji-Ho Cho, Moung Kook Seo, In Yeop Jang, Wook Je Park, Kwang Hee Ko, Kwan H. Lee
Gwangju Institute of Science and Technology
mildhoe@gmail.com

B128
Affective Geometry
Shagane Barsegian Launey
California College of the Arts
writeshagane@hotmail.com

Jackie Chia-Hsun Lee
MIT Media Lab Affective Computing

B129
Copernicus 3D Wikipedia
Jacek Jankowski
Digital Enterprise Research Institute, National University of Ireland
jacek.jankowski@deri.org

B130
dot . a scene = sin at the sea _ tactuaL [si:gak] series #2 Î_
Haemin Kim
Seoul National University
k.haemin@gmail.com

B131
Kinesthetic Robot Interfaces for Educational Games
Sheila Tejada
Brooklyn College
sheilatejada@gmail.com

B132
Mapping Out the Uncanny Valley: A Multidisciplinary Approach
Edward F. Schneider
SUNY Potsdam
schneief@potsdam.edu

B133
Shade Pixel
Hyunjung Kim, Woohun Lee
Korea Advanced Institute of Science and Technology
rroseoscar@kaist.ac.kr

B134
Sheaf on Sheet: A Concept of Tangible Interface for Browsing on a Flexible E-Paper
Tomoko Yonezawa, Noriaki Mitsunaga, Taichi Tajika, Takahiro Miyashita, Shinji Abe
ATR IRC Labs
yone@atr.jp

B135
Sonigraphite: Drawing Sound as New Physical Expression
Ryoko Kitazawa, Mariko Koizumi, Hiroshi Miyamura, Syugo Suzuki, Naohito Okude
Keio University
ryokok@sfc.keio.ac.jp

B136
Sound Candy: Equipment to Expand the Experience of Play in a Playground
Shuichi Ishibashi
Media Design, Okude Laboratory, Keio University
shuichi@sfc.keio.ac.jp

B137
Tactile Cloud Landscape
Kumiko Kushiyama
Tokyo Metropolitan University
kushi@ea.mbn.or.jp

Shinji Sasada
Japan Electronics Collage

B138
Tactile Grass Landscape
Kumiko Kushiyama, Yasushi Ikei
Tokyo Metropolitan University
kushi@ea.mbn.or.jp

Shinji Sasada
Japan Electronics College

B139
Tactile Hand Display
Kumiko Kushiyama
Tokyo Metropolitan University
kushi@ea.mbn.or.jp

Shinji Sasada
Japan Electronics College

B140
The reAcoustic eGuitar
Amit Zoran
MIT Media Lab
amitz@mit.edu

B141
Thermo-Messenger
Kumiko Kushiyama
Tokyo Metropolitan University
kushi@ea.mbn.or.jp

Shinji Sasada
Japan Electronics College

Hardware

F215
3D Image Synthesis Adaptive for Autostereoscopic Display Using Scan-Type Ray Acquisition System
Masahiro Sekine, Yoshiharu Momonoi, Tatsuo Saishu, Yasunobu Yamauchi
Corporate Research & Development Center, Toshiba Corporation
masahiro5.sekine@toshiba.co.jp

F216
A Smart Wireless Glove for Gesture Interaction
Elisabetta Farella
Omar Cafini, Luca Benini, Bruno Riccò
DEIS - Università di Bologna
elisabetta.farella@unibo.it

F217
An Innovative Daylight-Blocking Optical Stereo See-Through HMD
Pedro C. Santos, Thomas Gierlinger
Fraunhofer-IGD
pedro.santos@igd.fraunhofer.de

Oliver Machui
Trivision GmbH

Andre Stork
Frauhofer-IGD

F218
An LED Display Using Active Reflectors and Free-Space Optical Transmission
Geehyuk Lee, Yuri Ahn
Information & Communications University
geehyuk@icu.ac.kr

F219
Cheaply Capturing Normal Maps From Coins
Graham Fyffe
Sway Studio, LLC
gfyffe@gmail.com

F220
Configurable and Ad Hoc Display for Clothes
Munehiko Sato, Atsushi Hiyama, Tomohiro Tanikawa, Michitaka Hirose
The University of Tokyo
sato@cyber.t.u-tokyo.ac.jp

F221
Continuous Reference Images for FTIR Touch Sensing
Marc Alexa, Björn Bollensdorff, Ingo Bressler, Stefan Elstner, Uwe Hahne, Nino Kettlitz, Norbert Lindow, Robert Lubkoll, Ronald Richter, Claudia Strifp, Sebastian Szczepanski, Karl Wessel
Carsten Zander Technische Universität Berlin
marc.alexa@tu-berlin.de

F222
Creation of Moving 3D Moiré Using LCD and Fly's-Eye Lens
Kazuhisa Yanaka
Kanagawa Institute of Technology
yanaka@ic.kanagawa-it.ac.jp

F223
GPU-Based Audio Via the VGA Port
Jörn Loviscach Hochschule
Bremen University of Applied Sciences
j.loviscach@acm.org

F224
Hardware-Accelerated Shaders Using FPGAs
Luke Goddard
Bournemouth University

Ian Stephenson
NCCA/Bournemouth University
ian@dctsystems.co.uk

F225
Point-Based Level-of-Detail With Object Textures
André Maximo, Ricardo Marroquim, Claudio Esperança
Universidade Federal do Rio de Janeiro
andmax@gmail.com

F226
Semi-Transparent Light Field Display Using Dual Integral Videography
Takuro Wada, Takafumi Koike, Takeshi Naemura
The University of Tokyo
wada@hc.ic.i.u-tokyo.ac.jp

F227
Vortex-Display: Controllable Flying Projection Screen-Based on Vortex Rings
Yutaka Tokuda, Yasuhiro Suzuki, Kunihiro Nishimura, Tomohiro Tanikawa, Michitaka Hirose
The University of Tokyo
ytokuda@cyber.t.u-tokyo.ac.jp

F228
Wireless Sensor Network-Supported Many-to-One PC of Learning Environment
Yi-Shiang Lin
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Image/Video Processing

F229
A Per-Grain Simulation of Film
Ian Stephenson
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F230
AE-HDR: An Automatic Exposure Framework for High-Dynamic-Range Content
Francesco Banterle
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F231
Background Replacement
Sashi Kumar Penta
University of North Carolina at Chapel Hill
sashi@cs.unc.edu

F232
Coded Aperture Projection
Max Grosse
Oliver Bimber
Bauhaus-Universität Weimar
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F233
Colorimetric and Photometric Compensation for See-Through Displays
Christian Weiland
FH Bonn-Rhein-Sieg

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Wolfgang Heiden
FH Bonn-Rhein-Sieg

F234
Colorization Using Harmonic Templates
Kunie Suganuma, Junichi Sugita, Tokiichiro Takahashi
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F235
Computing Camera Orientation Relative to a World Coordinate Frame by Detecting Its Projected Axes
Matthias Lieberei, Bjoern Keck
Helmut-Schmidt University - University of the Federal Armed Forces Hamburg
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F236
Depth Compositing for Augmented Reality
Jonathan D. Ventura, Tobias Höllerer
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F237
Dynamic Blue Screens
Anselm Grundhöfer, Oliver Bimber
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F238
Efficient Local Texture Regularity Estimation
Chris Damkat
Philips Research
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Paul Hofman
NXP Semiconductors

F239
High-Performance Template Tracking Using Fixed Models
Raul Valladolid
Antonio S. Montemayor, Juan J. Pantrigo
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Bryson R. Payne
North Georgia College & State University

F240
Image Deblurring Using Corresponding Regions
Cosmin Ancuti
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F241
Personal Photo Enhancement Using Prior Images
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Wojciech Matuski
Adobe Systems, Inc.

David Kriegman
University of California, San Diego

Edward Adelson
Massachusetts Institute of Technology, Computer Science and Artificial Intelligence Laboratory

F242
Real-Virtual Antialiasing
Jan Fischer
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F243
Recalling The Single-FFT Direct Poisson Solve
James McCann
Carnegie Mellon University
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F244
Smart Album: Photo Filtering by Effect Detections
Ming-Yang Yu, Yu Liang, Ken-Yi Le, Bing-Yu Chen, Ming Ouhyoung
National Taiwan University
Yuminyung@gmail.com

F245
Video Camera With Semi-Automatic Correction Functions for Multiview Systems
Kenji Yamamoto, Ryutaro Oi
National Institute of Information and Communications Technology
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Interaction

B142
A Malleable Drum
JChristoph Von Tycowicz, Jörn Loviscach, Hochschule Bremen
j.loviscach@acm.org

B143
An Interactive Design System for Creating Repetition Patterns
Sawako Johzaki, Maki Terai, Reiji Tsuruno
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B144
An Interactive Tool for Fitting Surfaces to Volume Data
Ross T. Sowell, Lu Liu, Tao Ju, Cindy Grimm
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B145
Applications of Multi-Touch Gaming Technology to Middle-School Education
Will Muto, Paul Diefenbach
Drexel University
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B146
Body Tailored Space
Nancy Diniz
Bartlett, University College London
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B147
Construction Manual for the Virtual Holodek
Frank Steinicke, Timo Ropinski, Klaus Hinrichs, Gerd Bruder
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steinicke@web.de

B148
Emerging Keys: Interactive Electromagnetic Levitation Keys
Tetsuaki Baba, Taketoshi Ushiama, Kiyoshi Tomimatsu
Kyushu University
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B149
Ephemeral Melody
Risa Suzuki
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B150
Funi: Flowers as User Networking Interface
Yuka Nomura
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yuka@graco.c.u-tokyo.ac.jp

Ken Endo
MIT Media Lab

B151
Gaze- and Voice-Based Game Interaction: The Revenge of the Killer Penguins
Tom Wilcox, Mike Evans, Chris Pearce, Nick Pollard, Veronica Sundstedt
University of Bristol
tw4401@bris.ac.uk

B152
GUIs for Real-Time Programs Using Universal Pointers
Morgan McGuire
Williams College
morgan@cs.williams.edu

B153
Interactive Segmentation-Free Skeletonization of Grayscale Volumes
Sasakthi S. Abeysinghe
Washington University in St. Louis
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B154
InvestiGaming: a Gateway to Research About Gender, Gaming, and Computing
Carrie Heeter
Michigan State University
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B155
KAGEO
Yu Uchida, Mami Naito, Shiho Hirayama, Atsushi Nishio, Masa Inakage
Keio University
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B156
LimpiDual Touch: Interactive Limpid Display With Dual-Sided Touch Sensing
Masaki Iwabuchi
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Yasuaki Kakehi
Keio University

Takeshi Naemura
The University of Tokyo

B157
MeisterGRIP: Cylindrical Interface for Intuitional Robot Operation
Shuji Komeiji, Katsunari Sato, Kouta Minamizawa, Hideaki Nii, Naoki Kawakami, Susum Tachi
The University of Tokyo
shuji_komeiji@ipc.i.u-tokyo.ac.jp

B158
Mobile Interface Using Visible-Light Communication Technology for Pervasive Computing Environment
Takuji Narumi, Atsushi Hiyama, Tomohiro Tanikawa, Michitaka Hirose
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narumi@cyber.t.u-tokyo.ac.jp

B159
munica: An Advancing Age's Social Networking Device With Greeting Cards
Mizuki Namai
Keio University
mizukichen@z5.keio.jp

B160
Mutsugoto
Tomoko Hayashi, Stefan Agamanolis, Matthew Karau
Distance Lab Limited
stefan@distancelab.org

B161
nioi café: Olfactory Display Sysem With Visual Feedback
Aiko Nambu
The University of Tokyo
aikonmb@gmail.com

B162
Node Self-Localization in Two-Dimensional Communication: Networks
Kei Nakatsuma, Yasutoshi Makino, Hiroyuki Shinoda
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tsuma@alab.t.u-tokyo.ac.jp

B163
Physical Object Interaction Using a Glasses-Type Display
Mikiko Nakanishi, Tsutomu Horikoshi
NTT DoCoMo, Inc.
nakanishimi@nttdocomo.co.jp

B164
Remote Impact: Shadowboxing Over a Distance
Florian Mueller, Stefan Agamanolis, Matthew Karau
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B165
Seismonasty
Kumiko Kushiyama
Tokyo Metropolitan University

Shinji Sasada
Japan Electronics College
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B166
Study on the Brainwave-Based Alarm System to Prevent Children's Video & Internet Game Addiction
Soonho Shin
winshin2@naver.com

B167
Tile-Based Field Modeling
Maki Terai
Jun Fujiki, Reiji Tsuruno, Kiyoshi Tomimatsu
Kyushu University
maki@verygood.aid.design.kyushu-u.ac.jp

B168
Touch, Watch, and Listen to the Sound; Visualized Two-Dimensional Plane Vibration and its Sound
Yoko Yamakata, Michiaki Katsumoto, Toshiyuki Kimura
National Institute of Information and Communications Technology
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B169
Virtual Rome
Luigi Calori
CINECA
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Sofia Pescarin, Carlo Camporesi, Andrea Negri
CNR ITABC

B170
Whadget: Interactive Animation Using Personification-Gesture Expression of the Hand
Yu Nagao
Haruka Yamaguchi, Kazuhiro Harada, Kaori Omura, Masa Inakage
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Modeling

D207
Automated Interior Design From A to Z
Robert Brauer, Arne von Öhsen, Jörn Loviscach
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D208
Automatic and Accurate Mesh Fitting Based on 3D Range-Scanning Data
Shinya Nakano, Akinobu Maejima, Yusuke Nonaka, Shigeo Morishima
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D209
Depth-Image-Based 3D Human Modeling Resolving Self-Occlusion
InYeop Jang, Ji-Ho Cho, Myoung Kook Seo, Wook Je Park, Kwan H. Lee
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D210
Eccentric Radial Basis Functions and Their Applications
Yoshihiro Kanamori
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Eiji Takaoki
META Corporation Japan

Tomoyuki Nishita
The University of Tokyo

D211
Hair Animation and Styling Based on 3D Range Scanning Data
Shiori Sugimoto, Shigeo Morishima
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D212
Interactive Deformation Using Volumetric Constraints
Kentaro Doba, Kenta Ogawa, Kenji Murakami, Hiroshi Masuda
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D213
Surface Reconstruction From Point Set Using Projection Operator
Ly Phan, Lu Liu, Sasakthi Abeysinghe, Tao Ju, Cindy Grimm
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lyphan@wustl.edu

D214
Synthesizing Facial Animation Using Dynamical Property of Facial Muscles
Hiroyuki Kubo, Yasushi Ishibashi, Akinobu Maejima, Shigeo Morishima
Waseda University
hkubo@suou.waseda.jp

Rendering

C200
A GPU-Based Real-Time Rendering Method for Immersive Stereoscopic Displays
Kensei Jo, Kouta Minamizawa, Hideaki Nii, Naoki Kawakami, Susumu Tachi
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kensei_jo@ipc.i.u-tokyo.ac.jp

C201
A Method for 3D Scene Reconstruction From Ukiyo-e
Yuka Kubo, Koichi Hirota, Sho Cho, Takanori Usami
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C202
Accelerating Ray Tracing Using Constrained Tetrahedralizations
Ares Lagae, Philip Dutré
Katholieke Universiteit Leuven
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C203
Lace Curtain: Measurement of BTDF and Rendering of Woven Cloth - Production of Curtain Catalog
Hitoshi Uno, Yoshiki Mizushima, Noriko Nagata
Kwansei Gakuin University
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Yoshiyuki Sakaguchi
Digital Fashion Ltd.

C204
Precomputed Importance Sampling
Manfred Ernst
Bytes+Lights GmbH
manfred.ernst@bytes-lights.de

C205
Real-Time Relighting for Stage Use
Ian Stephenson
NCCA/Bournemouth University
ian@dctsystems.co.uk

C206
Volumetric Peeling: Feature-Centric Visualization Using Membership Functions
Navneeth Subramanian, Vivek Vaidya, Rakesh Mullick, Ravikanth Malladi
GE Global Research
navneeth.s@ge.com

Virtual/Augmented Reality

B171
A User-Interface Prototype For A Mobile Augmented Reality Tool To Assist Archaeological Fieldwork
Ceren Kayalar, Ahmet Emrah Kavlak, Selim Balcisoy
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emrahk@su.sabanciuniv.edu

B172
An Effective Combination of Haptic and Tactile Sensations in Human-Scale Virtual Environments
Naoki Hashimoto, Yuichiro Lio, Makoto Sato
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B173
BraTrack: A Low-Cost Marker-Based Optical Stereo Tracking System
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Francisco Pinto
Universidade Federal do Rio Grande do Sul
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Alexandre Buaes, Diego Francio
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B174
Culinary Art Designer
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B175
gCubik: A Cubic Autostereoscopic Display for Multi-User Interaction
Roberto Lopez-Gulliver, Shunsuke Yoshida, Sumio Yano, Naomi Inoue
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B176
GhostGlove: Haptic Existence of the Virtual World
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B177
PVLC Projector: Image Projection With Imperceptible Pixel-Level Metadata
Sho Kimura, Ryo Oguchi, Hideo Tanida, Keita Takahashi Takeshi Naemura
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Yasuaki Kakehi
Keio University/Presto
Japan Science and Technology Agency

B178
Survey of National/Culture-Specific Tendencies of Avatars in the Diversifying Metaverse
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Motoyoshi Hirata, Keiji Mitsubuchi
Digital Hollywood University

Visualization

G246
A Study of Printing Order Estimation of Two-Color Wood-Block Printing
Kazuki Onigahara, Minoru Okada
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Shinji Mizuno
Toyohashi University of Technology
Information and Media Center

G247
Accident Animation: Complexity of Integrating Accident Scene Data From Multiple Sources, and the Value of These Animations in Promoting and Improving Transportation Safety
Christy Spangler, Alice Park
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G248
Arctic Fracture: A Real-Time Visualization of Live Music Using 3D Computer Animation
Matthew Bain
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G249
Beat Story – The System to Record Subjective Time Length
Hiroko Nozawa
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G250
ChaoSwitch
Takashi Iba
Keio University
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G251
Computer Graphics for Quantum Computation
Solvita Zarina, Rusins Freivalds
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G252
Efficient Rendering Technique for Darkride Visualization
ChienHung Shih
Carnegie Mellon University
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KaiTzu Lu
Industrial Technology Research Institute

G253
Life is Meaning
Brigitte Schuster
Concordia University Montreal
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G254
New Tools for Collaborative Industrial Design and Communication
Michael Murphy, Michael Dick, Michael Lawrie, Robert King
Ryerson University
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G255
The Footprints of Chaos
Takashi Iba
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G256
Visualizing Molecular Uncertainty: A Path to the Path
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Sheryl Justice
Nationwide Children's Research Institute

Ray William
The Ohio State University

Image Courtesy Meats Meier

Computer Animation Festival

Experience the full spectrum of animation and visual effects. SIGGRAPH 2008's newly expanded Computer Animation Festival features five days of screenings, four days of talks, three nights of all-star studio events, and two days of 3D stereoscopic panels and screenings. In addition to the always-popular juried screening, the festival offers a full spectrum of work from around the world:

➡ **Inspiring studio content, cool Flash films, mind-altering DemoScene animation, international school retrospectives, selections from the Japan Media Arts Festival, the latest in real-time game graphics, and a look at 25 years of Polygon Pictures.**

The SIGGRAPH 2008 Computer Animation Festival presents artists and experts in talks on all aspects of production, from animation to visual effects, from shorts to full-length features, from television to movies, from art to science, from learning the history of animation to learning the craft. This is your opportunity to totally immerse yourself in the full spectrum of animation and visual effects.

Participate in selecting the Audience Prize and see the results at the Festival's first annual award show - a raucous hour of animation, animation directors, prizes, and surprises. And don't miss exciting nightly events hosted by Pixar, Sony Pictures Imageworks, and Industrial Light & Magic. Experience a full slate of talks and attend several production sessions, including a mind-bending look into Speed Racer, a journey behind the scenes of "Cloverfield" and "Iron Man," a review of ideas that didn't quite make it through production, and a glimpse through the eyes of gaming pioneers at the evolution of user-generated game experiences.

The Computer Animation Festival also features a Hall of History in Petree Hall (viewing stations displaying a selection of historic and iconic SIGGRAPH animations) and an exhibit of storyboards and supporting art from accepted works.

	MONDAY, 11 AUGUST			TUESDAY, 12 AUGUST		
	Nokia Theatre	**LACC Petree Hall C**	**LACC Petree Hall D**	**Nokia Theatre**	**LACC Petree Hall C**	**LACC Petree Hall D**
8:30 - 10:15 am		3D Primer: The Fundamentals of Stereoscopy from Acquisition to Projection	The Process of Animation: A Three-Hour Tour 8:30 am - 12:15 pm		Animated 3D Cinema: Imaginary Worlds Brought To Life	A Brief and Irreverent History of Character Animation: An Entire History In A Day 8:30 am - 5:30 pm
10:30 am - 12:15 pm		3D For Science and Research: From Inner to Outer Space			Live 3D Cinema: Capturing Real-World Depth	
12:30 - 1:30 pm				DemoScene 1:10 - 1:30 pm JMAF 12:30 - 1 pm		
1:45 - 3:30 pm		**ACM SIGGRAPH AWARDS** **FEATURED SPEAKER** Ed Catmull **Hall B** 1:30 - 3 pm		Competition Screening #1 1:45 - 3:45 pm	**FEATURED SPEAKER** Catherine Owens **Hall B** 1:30 - 3 pm	
3:45 - 5:30 pm		3D for Gaming and Alternative Media: How 3D Is Changing the Way We Play	Mummy Unwrapped	Studios: Eye Candy 4:30 - 5:30 pm	3D: Rounding Up the Future	
5:45 - 7:30 pm		3D Screenings 5:45 - 7:15 pm U2 3D Screening 7:30 - 9 pm		Competition Screening #2 5:45 - 7:45 pm		
8 - 11 pm				Pixar Presents: John Lasseter and Frédéric Back: The Man Who Planted Trees Leslie Iwerks and Friends Introduce: The Pixar Story		

	WEDNESDAY, 13 AUGUST			THURSDAY, 14 AUGUST			FRI, 15 AUG
	Nokia Theatre	LACC Petree Hall C	LACC Petree Hall D	Nokia Theatre	LACC Petree Hall C	LACC Petree Hall D	Nokia Theatre
8:30 - 10:15 am		The Making of Big Buck Bunny: An Open-Source Evolution	Making of an Oktapodi Meet the Artists with Hal Hickel: The Inspiration Behind the Animation		Next Great Talent Search: Education and Schools	Making Horton Hears A Who Into A New Kind of Classic	
10:30 am - 12:15 pm	Competition Screening #3 10:30 am - 12:30 pm	Terra: Creating an Independent Animated Feature	A Tribute to the Life and Work of Frank Thomas and Ollie Johnston	Competition Screening #5 10:30 am - 12:30 pm	Future of Character Animation	Where Science and CG Converge: The Line Between Reality and Fiction	Competition Screening #7 10:30 am - 12:30 pm
12:30 - 1:30 pm	Schools: Retrospective 1:30 - 2:30 pm			Polygon Pictures Retrospective 1:30 - 2:15 pm			Award Winners 12:45 - 1:15 pm Flash Animation Reel 1:30 - 2:30 pm
1:45 - 3:30 pm	Games: The War Zone 2:45 - 3:45 pm	Building an Animation Studio and Developing a Feature	Polygon Pictures: A Quarter Century of Animation	Studios: Eye Candy 2:30 - 3:30 pm	Flash Forward: A Forum on Flash **FEATURED SPEAKER** Takeo Kanade **Hall B** 1:45 - 3 pm	Three in One... Fat Panda; Monster.com; Kevin Mack and the DemoScene	Studios: Eye Candy 2:30 - 3:30 pm
3:45 - 5:30 pm	DemoScene 4 - 4:20 pm Studios: Eye Candy 4:30 - 5:30 pm	Disney and Pixar: Presto and Glago's Guest	Future History: Three Inspiring Broadcast Projects Peer Into the Future	**Festival Awards Ceremony**	El Tigre: Behind the Scenes	Animation in Commercials	
5:45 - 7:30 pm	Competition Screening #4 5:45 - 7:45 pm			Competition Screening #6 5:45 - 7:45 pm			
8 - 11 pm	Sony Pictures Imageworks Presents:			ILM Presents:			

➡ Days & Hours

Competition Screening 1	Tuesday, 12 August	1:45 - 3:45 pm
Competition Screening 2	Tuesday, 12 August	5:45 - 7:45 pm
Competition Screening 3	Wednesday, 13 August	10:30 am - 12:30 pm
Competition Screening 4	Wednesday, 13 August	5:45 - 7:45 pm
Competition Screening 5	Thursday, 14 August	10:30 am - 12:30 pm
Competition Screening 6	Thursday, 14 August	5:45 - 7:45 pm
Competition Screening 7	Friday, 15 August	10:30 am - 12:30 pm

➡ Location

Nokia Theatre

Competition Screenings

The Computer Animation Festival Competition Screenings present the best of this year's computer animation, including visual effects, animated shorts, excerpts from motion pictures, student work, scientific visualization, abstract art, and so much more. As in the storied past of this event, these screenings represent the finest submitted entries from around the world, juried by industry experts for screenings in LA's new Nokia Theatre.

The Computer Animation Festival Prize

New this year: members of the festival audience vote for their favorite work in the first five Competition Screenings. When you decide which work should receive the Audience Prize, text its five-digit vote number to 41411 in this format: CAF08 12345. The Audience Prize and other awards are presented Thursday, 14 August, 3:45 pm, in the Nokia Theatre.

893
France
Annabel Sebag
Premium Films
Vote Number: 75825

10th Avatar
Canada
Charuvi Agrawal
Sheridan College
Vote Number: 65801

3Deluxe Showreel Opener
Germany
Gloria Alvaro
3deluxe Motion
Vote Number: 18491

A Faery's Tale
USA
Sylvia Apostol
Vote Number: 79342

Al dente
France
Annabel Sebag
Premium Films
Vote Number: 45460

Anima Facta Est
France
Eric Riewer
Gobelins l'ecole de l'image
Vote Number: 51678

Animation of Jellyfish With Tentacles
Japan
Junsei Hirato
The University of Tokyo
Vote Number: 35899

Appleseed: Ex Machina
Japan
Takehisa Yoshimura
Digital Frontier Inc.
Vote Number: 64853

Avatara
United Kingdom
Kam-Li Cheng
Vote Number: 58705

Bärenbraut
Germany
Tina Ohnmacht
Filmakademie Baden-Württemberg
Vote Number: 14392

BBC Ident "Penguins"
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 74046

Blind Spot
France
Eric Riewer
Gobelins l'ecole de l'image
Vote Number: 84393

Blizzard Entertainment's StarCraft II Cinematic Teaser
USA
Janet Garcia
Blizzard Entertainment
Vote Number: 28815

Bolides
France
Annabel Sebag
Premium Films
Vote Number: 17404

BoxRacer
USA
Carolyn Anderson
Ringling College of Art and Design
Vote Number: 83041

Bridgestone: Scream
USA
Ryan Green
Method Studios
Vote Number: 74749

Carbon Footprint
United Kingdom
William Rockall
Jellyfish Pictures
Vote Number: 21114

The Chemical Brothers "The Salmon Dance"
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 29641

Chronos 1.0
France
Eric Riewer
Gobelins l'ecole de l'image
Vote Number: 65701

Chrysalis
France
Morgane Thomas
la maison
Vote Number: 71845

Chump and Clump
Germany
Michael Herm
Vote Number: 37264

Clorox "Turtle"
United Kingdom
Kim Strobl
Passion Pictures
Vote Number: 96375

Cloverfield: The Evolution of a Character
USA
Lori Petrini
Tippett Studio
Vote Number: 31572

Confine(s)
Japan
Makoto Yabuki
Tangram
Vote Number: 15499

Distraxion
USA
Mike Stern
DreamWorks Animation
Vote Number: 54277

Do Penguins Fly?
France
Sun Limet
Vote Number: 18481

Dual Scattering for Real-Time Multiple Scattering in Hair
USA
Cem Yuksel
Texas A&M University
Vote Number: 41535

Emile and the Fabulous Small Gentlemen
France
Eric Riewer
Gobelins l'ecole de l'image
Vote Number: 72713

Family Portrait
Germany
Tina Ohnmacht
Filmakademie Baden-Württemberg
Vote Number: 61134

Fanboy
USA
Eric Robles
Nickelodeon
Vote Number: 23872

Fight for Life
United Kingdom
William Rockall
Jellyfish Pictures
Vote Number: 44483

Fighting Infection by Clonal Selection
Australia
Etsuko Uno
The Walter and Eliza Hall Institute of Medical Research
Vote Number: 44906

The Golden Compass
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 43656

Greenpeace Rainbow Warrior
Germany
Tina Ohnmacht
Filmakademie Baden-Württemberg
Vote Number: 21401

Goobees
USA
Patrick O'Brien
Texas A&M University
Vote Number: 91824

Harmonix "Rockband"
United Kingdom
Kim Strobl
Passion Pictures
Vote Number: 65976

Harry Potter and the Order of the Phoenix
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 67029

HeavyDuty
Taiwan
Chih Chang
Digimax Inc.
Vote Number: 28455

L'homme à tête de poule
France
Annabel Sebag
Vote Number: 33783

Hugh
France
Khenissi Karim
Ecole supérieure des métiers artistiques
Vote Number: 29102

IBM Web Campaign: What Makes You Special?
USA
Betsy de Fries
Little Fluffy Clouds LLC
Vote Number: 45224

Jungle Jail
France
Khenissi Karim
Ecole supérieure des métiers artistiques
Vote Number: 50112

Knoll's Computer-Class: The BRDF
Germany
Matthias Parchettka
Fachhochschule Düsseldorf
Vote Number: 62850

Kung Fu Panda
USA
Markus Manninen
DreamWorks Animation
Vote Number: 13727

Les Pieds Tanqués
France
Annabel Sebag
Premium Films
Vote Number: 64147

Little Huntress
Germany
Tina Ohnmacht
Filmakademie Baden-Württemberg
Vote Number: 16733

Lux "Neon Girl"
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 13283

Madagascar: Escape 2 Africa - Crash Landing Sequence
USA
Darin Grant
PDI/DreamWorks
Vote Number: 16052

Marin
France
Annabel Sebag
Premium Films
Vote Number: 29094

Mauvais Rôle
France
Frederic Fourier
Vote Number: 24344

Mindplotter
Germany
Tina Ohnmacht
Filmakademie Baden-Württemberg
Vote Number: 21406

Mister Sandman
France
Annabel Sebag
Premium Films
Vote Number: 24436

The Moment
Germany
Tina Ohnmacht
Filmakademie Baden-Württemberg
Vote Number: 96188

Monster.com "Stork"
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 31984

Morula
Germany
Kristian Labusga
Vote Number: 21170

My Happy End
Germany
Milen Vitanov
Vote Number: 53614

My Little Angel
USA
Scott Gaff
Flurry Animation Studios
Vote Number: 52493

Nature "Tzu-Jan"
USA
Ari Rubenstein
Blue Sky Studios
Vote Number: 35740

Now Look What You Did - Cigarette
USA
Oren Robashkin
MAKE
Vote Number: 26787

Oktapodi
France
Eric Riewer
Gobelins l'ecole de l'image
Vote Number: 54013

One Pair
Japan
Ken Anjyo
OLM Digital, Inc.
Vote Number: 36093

Our Wonderful Nature
Germany
Tomer Eshed
Hochschule für Film und Fernsehen
Vote Number: 86626

The Plush Life
USA
Timothy Heath
NVIDIA Corporation
Vote Number: 82799

Primeval
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 22629

Quand revient la mousson
France
Annabel Sebag
Premium Films
Vote Number: 36108

Renkan
Japan
Nobuo Takahaski
Nagoya City University
Vote Number: 30264

Rexona "Redline"
United Kingdom
Gemma Samuell
Framestore CFC
Vote Number: 92743

Rhythm & Hues 2007 Feature Film Work
USA
Scot Byrd
Rhythm & Hues Studios
Vote Number: 41996

Rua das Tulipas
Brazil
Alê Camargo
OZI Escola de Audiovisual de Brasília
Vote Number: 42576

The Secret Life of Vortices
Switzerland
Diego Rossinelli
ETH Zürich
Vote Number: 60244

Shatter
Japan
Kouhei Nakama
Nabla Inc.
Vote Number: 63311

Simulating Cloth at the Yarn Level
USA
Jonathan Kaldor
Cornell University
Vote Number: 69649

Snowtime
United Kingdom
Dana Dorian
Axis Animation
Vote Number: 53222

Tarboy
Australia
James Lee
Vote Number: 44827

Team Fortress 2: Meet The Engineer
USA
Keith Huggins
Valve Software
Vote Number: 32057

Towers in the Tempest
USA
Gregory Shirah
NASA
Vote Number: 82413

Transformers: The Game
USA
Amanda Powell
Blur Studio, Inc.
Vote Number: 69647

The VFX of Movie "Dai Nipponjin"
Japan
Yvonne Chang
Casio Entertainment, Inc.
Vote Number: 49547

"Wanderlust" Bjork Music Video
USA
Damijan Saccio
UVPHACTORY
Vote Number: 28784

Competition Screening 1

Tuesday, 12 August, 1:45 - 3:45 pm

		Vote Number
1	Carbon Footprint	21114
2	L'homme à tête de poule	33783
3	Family Portrait	61134
4	The Chemical Brothers "The Salmon Dance"	29641
5	Heavy Duty	28455
6	Chrysalis	71845
7	Our Wonderful Nature	86626
8	Fighting Infection by Clonal Selection	44906
9	Shatter	63311
10	Blind Spot	84393
11	The Golden Compass	43656
12	Bärenbraut	14392
13	The Moment	96188
14	Bridgestone: Scream	74749
15	Blizzard Entertainment's StarCraft II Cinematic Teaser	28815
16	Animation of Jellyfish With Tentacles	35899
17	Mauvais Rôle	24344
18	Anima Facta Est	51678
19	Fight for Life	44483
20	Oktapodi	54013
21	Chronos 1.0	65701
22	Kung Fu Panda	13727
23	893	75825
24	Bolides	17404
25	Team Fortress 2: Meet the Engineer	32057
26	Primeval	22629
27	Chump and Clump	37264
28	BBC Ident "Penguins"	74046
29	Rua das Tulipas	42576
30	Lux "Neon Girl"	13283
31	Madagascar: Escape 2 Africa – Crash Landing Sequence	16052

Competition Screening 2

Tuesday, 12 August, 5:45 - 7:45 pm

		Vote Number
1	Carbon Footprint	21114
2	Tarboy	44827
3	Do Penguins Fly?	18481
4	The Chemical Brothers "The Salmon Dance"	29641
5	My Little Angel	52493
6	Little Huntress	16733
7	Our Wonderful Nature	86626
8	Shatter	63311
9	Blind Spot	84393
10	The Golden Compass	43656
11	Bärenbraut	14392
12	The Moment	96188
13	Bridgestone: Scream	74749
14	Renkan	30264
15	Towers in the Tempest	82413
16	Nature	35740
17	Mauvais Rôle	24344
18	Anima Facta Est	51678
19	Fight for Life	44483
20	Oktapodi	54013
21	My Happy End	53614
22	Simulating Cloth at the Yarn Level	69649
23	893	75825
24	Bolides	17404
25	Team Fortress 2: Meet the Engineer	32057
26	The Plush Life	82799
27	Knoll's Computer Class: The BRDF	62850
28	Chump and Clump	37264
29	BBC Ident "Penguins"	74046
30	Rhythm & Hues 2007	41996
31	Clorox "Turtle"	96375
32	Madagascar: Escape 2 Africa – Crash Landing Sequence	16052

Competition Screening 3

Wednesday, 13 August, 10:30 am - 12:30 pm

		Vote Number
1	Carbon Footprint	21114
2	A Faery's Tale	79342
3	The Chemical Brothers "The Salmon Dance"	29641
4	Monster.com "Stork"	31984
5	Our Wonderful Nature	86626
6	The Secret Life of Vortices	60244
7	Shatter	63311
8	Blind Spot	84393
9	The Golden Compass	43656
10	Bärenbraut	14392
11	The Moment	96188
12	Bridgestone: Scream	74749
13	Cloverfield: The Evolution of a Character	31572
14	Transformers: The Game	69647
15	Mauvais Rôle	24344
16	Anima Facta Est	51678
17	Fight for Life	44483
18	Oktapodi	54013
19	Morula	21170
20	Hugh	29102
21	893	75825
22	Bolides	17404
23	Team Fortress 2: Meet the Engineer	32057
24	Appleseed: Ex Machina	64853
25	Quand revient la mousson	36108
26	Chump and Clump	37264
27	BBC Ident "Penguins"	74046
28	Mindplotter	21406
29	Distraxion	54277
30	Madagascar: Escape 2 Africa – Crash Landing Sequence	16052

Competition Screening 4

Wednesday, 13 August, 5:45 - 7:45 pm

		Vote Number
1	Carbon Footprint	21114
2	Marin	29094
3	The Chemical Brothers "The Salmon Dance"	29641
4	Confine(s)	15499
5	IBM Web Campaign - What Makes You Special?	45224
6	10th Avatar	65801
7	Now Look What You Did - Cigarette	26787
8	Fanboy	23872
9	Harmonix "Rockband"	65976
10	Our Wonderful Nature	86626
11	Shatter	63311
12	Blind Spot	84393
13	The Golden Compass	43656
14	Bärenbraut	14392
15	The Moment	96188
16	Bridgestone: Scream	74749
17	Greenpeace Rainbow Warrior	21401
18	Mauvais Rôle	24344
19	Anima Facta Est	51678
20	Fight for Life	44483
21	Oktapodi	54013
22	3Deluxe Showreel Opener	18491
23	Les Pieds Tanqués	64147
24	893	75825
25	Bolides	17404
26	Team Fortress 2: Meet the Engineer	32057
27	Emile and the Fabulous Small Gentlemen	72713
28	Chump and Clump	37264
29	BBC Ident "Penguins"	74046
30	One Pair	36093
31	Madagascar: Escape 2 Africa – Crash Landing Sequence	16052

Competition Screening 5

Thursday, 14 August, 10:30 am - 12:30 pm

		Vote Number
1	Carbon Footprint	21114
2	BoxRacer	83041
3	Rexona "Redline"	92743
4	The Chemical Brothers "The Salmon Dance"	29641
5	Mister Sandman	24436
6	Our Wonderful Nature	86626
7	Dual Scattering for Real-Time Multiple Scattering in Hair	41535
8	Harry Potter and the Order of the Phoenix	67029
9	Shatter	63311
10	Blind Spot	84393
11	The Golden Compass	43656
12	Bärenbraut	14392
13	The Moment	96188
14	Bridgestone: Scream	74749
15	Avatara	58705
16	Mauvais Rôle	24344
17	Anima Facta Est	51678
18	Fight for Life	44483
19	Oktapodi	54013
20	The VFX of "Dai Nipponjin"	49547
21	"Wanderlust" Music Video for Bjork	28784
22	Snowtime	53222
23	893	75825
24	Bolides	17404
25	Team Fortress 2: Meet the Engineer	32057
26	Goobees	91824
27	Al Dente	45460
28	Chump and Clump	37264
29	BBC Ident "Penguins"	74046
30	Jungle Jail	50112
31	Madagascar: Escape 2 Africa – Crash Landing Sequence	16052

Competition Screening 6

Thursday, 14 August, 5:45 - 7:45 pm

		Vote Number
1	Harmonix "Rockband"	65976
2	Now Look What You Did - Cigarette	26787
3	Fanboy	23872
4	IBM Web Campaign - What Makes You Special?	45224
5	10th Avatar	65801
6	Confine(s)	15499
7	Clorox "Turtle"	96375
8	Marin	29094
9	Quand revient la mousson	36108
10	Simulating Cloth at the Yarn Level	69649
11	Do Penguins Fly?	18481
12	Les Pieds Tanqués	64147
13	Chrysalis	71845
14	Appleseed: Ex Machina	64853
15	Distraxion	54277
16	"Wanderlust" Music Video for Bjork	28784
17	Rexona "Redline"	92743
18	The VFX of "Dai Nipponjin"	49547
19	Nature	35740
20	Harry Potter and the Order of the Phoenix	67029
21	Family Portrait	61134
22	Little Huntress	16733
23	The Secret Life of Vortices	60244
24	Chronos 1.0	65701
25	My Little Angel	52493
26	Al Dente	45460
27	Monster.com "Stork"	31984
28	A Faery's Tale	79342
29	Renkan	30264
30	Rua das Tulipas	42576

Competition Screening 7

Friday, 15 August, 10:30 am - 12:30 pm

		Vote Number
1	The Plush Life	82799
2	3Deluxe Showreel Opener	18491
3	Greenpeace Rainbow Warrior	21401
4	Jungle Jail	50112
5	Fighting Infection by Clonal Selection	44906
6	HeavyDuty	28455
7	Towers in the Tempest	82413
8	Lux "Neon Girl"	13283
9	Morula	21170
10	Hugh	29102
11	Blizzard Entertainment's StarCraft II Cinematic Teaser	28815
12	Knoll's Computer Class: The BRDF	62850
13	Kung Fu Panda	13727
14	Snowtime	53222
15	Avatara	58705
16	Emile and the Fabulous Small Gentlemen	72713
17	Rhythm & Hues 2007	41996
18	Mindplotter	21406
19	Primeval	22629
20	Mister Sandman	24436
21	Cloverfield: The Evolution of a Character	31572
22	Animation of Jellyfish With Tentacles	35899
23	My Happy End	53614
24	BoxRacer	83041
25	One Pair	36093
26	Goobees	91824
27	L'homme à tête de poule	33783
28	Dual Scattering for Real-Time Multiple Scattering in Hair	41535
29	Transformers: The Game	69647
30	Tarboy	44827

➡ Days & Hours

Japan Media Arts Festival	Tuesday, 12 August	12:30 - 1 pm
DemoScene	Tuesday, 12 August	1:10 - 1:30 pm
Studios: Eye Candy	Tuesday, 12 August	4:30 - 5:30 pm
Schools in Retrospect	Wednesday, 13 August	1:30 - 2:30 pm
Games: The War Zone	Wednesday, 13 August	2:45 - 3:45 pm
DemoScene	Wednesday, 13 August	4 - 4:20 pm
Studios: Eye Candy	Wednesday, 13 August	4:30 - 5:30 pm
Polygon Pictures	Thursday, 14 August	1:30 - 2:15 pm
Studios: Eye Candy	Thursday, 14 August	2:30 - 3:30 pm
Flash	Friday, 15 August	1:30 - 2:30 pm
Studios: Eye Candy	Friday, 15 August	2:30 - 3:30 pm

➡ Location

Nokia Theatre

Invited Screenings

The newly expanded Computer Animation Festival adds a slate of curated screenings to the juried content: something new, something old, everything exceptional.

Japan Media Arts Festival

Tuesday, 12 August, 12:30 - 1 pm
Nokia Theatre

Curated selections from this year's festival.

20010218-20060218

Fujii Shiro
Shiro Fujii

After School Midnight

Takekiyo Hitoshi/Koo-Ki Entertainment
GA Digital Graphics

Dainippon Ink & Chemical Incorporated

Morimoto Chie
Dainippon Ink and Chemicals Inc.

Issey Miyake A-Poc Inside

Masahiko Sato, Euphrates
Issey Miyake Inc.

Le Musician

Kinda
Aoki

Musashino Plateau

Takahashi Nobuo/2006 Nobuo Takahashi Laboratory
Yoshida Gakuen

Ryukyodisko/Nice Day

Ryukyudisko/Kojima Junji
Ki/oon Records Inc.

DemoScene

Tuesday, 12 August, 1:10 - 1:30 pm
Nokia Theatre

These stunningly mind-altering images originate as very tiny files. Operating in an underground subculture, these artists are able to take advantage of vintage processors and cutting-edge graphics cards. The result: an entirely novel perspective on the world around you.

Atrium

Simon Aske Christensen, Rune Zedeler, Rune Lehard, Hansen Stubbe, Christian Ronde
TBC & Loonies

Challenger Deep

Martti Nurmikari, Rauli Laatikainen, Eike Steffen, Linda Smith, Gordian Breede
Traction & Brainstorm

Media Error

Matt Swoboda, Jani Isoranta, Miika Huttunen, Eetu Martola, Iiro Harra, Kustaa Viori, Veikka Erkola
Fairlight, CNCD & Orange

Chromosphere

Kimmo Seppanen, Joonas Mantynen
SQNY

Masagin

Leonard Ritter, Dierk Ohlerich, Kai Poethkow, Jan Novak, Peter Wolter
Sylvia Klaus Farbrausch & Neuro

Studios: Eye Candy

Tuesday, 12 August, 4:30 - 5:30 pm
Nokia Theatre

A sampler from Disney, Pixar, Industrial Light & Magic, Digital Domain, the Orphanage, Sony Pictures Imageworks, Blue Sky, and others, including a sneak peek into the animated feature film, "The Fourth Magi," from a brand-new animation company: Lightstream Animation Studios.

Schools in Retrospect

Wednesday, 13 August, 1:30 - 2:30 pm
Nokia Theatre

An hour-long compilation of retrospectives from some of the world's finest animation schools

AnimationMentor
Australian Film TV and Radio School
Carnegie Mellon University
Filmakademie Baden-Württemberg
Massachusetts Institute of Technology
Otis College of Art & Design
Pratt Institute
Ringling College of Art & Design
Texas A&M University
University of Southern California
Vancouver Film School

Games: The War Zone

Wednesday, 13 August, 2:45 - 3:45 pm
Nokia Theatre

Real-time content has progressed remarkably. This hour overwhelms, entertains, surprises (with a premiere), and inspires.

Army of Two
Electronic Arts Inc.

Assassin's Creed
Ubisoft Entertainment

Unreal Tournament 3
Epic Games

BioShock
2K Games

Call of Duty 4
Activision, Inc.

Drake's Fortune
Naughty Dog, Inc.

Facebreaker
Electronic Arts Inc.

Far Cry 2
Ubisoft Entertainment

FIFA Street 3
Electronic Arts Inc.

Gears of War 2
Epic Games

Halo 3
Bungie Studios

Left4Dead
Valve Corporation

Mass Effect
Bioware

Metal Gear Solid 4 (PS3)
Konami Corporation

Mirror's Edge
Electronic Arts Inc.

Need for Speed - ProStreet
lectronic Arts Inc.

Ratchet & Clank Future
Insomniac Games

Team Fortress 2
Valve Corporation

Tom Clancy's EndWar
Ubisoft Entertainment

Spore
Electronic Arts Inc.

Command & Conquer Red Alert
Electronic Arts Inc.

DemoScene

Wednesday, 13 August, 4 - 4:20 pm
Nokia Theatre

These stunningly mind-altering images originate as very tiny files. Operating in an underground subculture, these artists are able to take advantage of vintage processors and cutting-edge graphics cards. The result: an entirely novel perspective on the world around you.

Metamorphosis

Kostas Pataridis, Sotiris Varotsis, Nikos Mpatalas, Stathis Sideris
Andromeda Software Development

Beyond the Walls of Eryx

Kostas Pataridis, Sotiris Varotsis, Nikos Mpatalas
Andromeda Software Development

Debris

Thomas Mahlke, Dierk Ohlerich, Ronny Pries, Sebastian Grillmaier, Christoph Muetze, Fabian Giesen, Bastian Zuehlke
Farbrausch & Neuro

Route 1066

Matt Swoboda, Neil Purvey, Paul Chadwick, Nicola Cavalla, Kustaa Viori
UKscene Allstars

Lifeforce

Kostas Pataridis, Sotiris Varotsis, Fotis Panetsos Nikos Mpatalas, George Cherouvim, Hakon Repstad
Andromeda Software Development

Studios: Eye Candy

Wednesday, 13 August, 4:30 - 5:30 pm
Nokia Theatre

See description page 78.

Polygon Pictures: A Studio Retrospective

Thursday, 14 August, 1:30 - 2:15 pm
Nokia Theatre

Polygon Pictures celebrates its 25th anniversary this year. Here is a look back at a much-loved studio, and some beautiful work.

Studios: Eye Candy

Thursday, 14 August, 2:30 - 3:30 pm
Nokia Theatre

See description page 78.

Flash

Friday, 15 August, 1:30 - 2:30 pm
Nokia Theatre

From the classroom to the desktop, from the gallery to the television, Flash makes animation accessible and entertaining. Here is a full hour of some of the best Flash work in the world.

(Renegade) Studio Highlights

Ashley Postelwaite

"In 2007" and "What We Call the News" (Jib Jab)

Lauren Ashley Lloyd

A Really Really Brief History Of Donkey Kong (King of Kong)

Gabe Swarr

Bloody Mary

Zina Papadopoulou

Dave Markowitz Personal Stuff

Dave Markowitz

Einstein's Riddle

Gina Kamentsky
Pixeltoon

Foster's Imaginary Friends

Ryan Slater
Cartoon Network

Heavenly Sword Series

Tor Fitzwilliams
Stateless Films

Hero 108

Hadley Hudson
Radar Cartoons

Pre-Teen Raider, "Powershares", "Class President"

Brendan Burch
Six Point Harness

The New Yorker Cartoons and Dilbert (Ring Tales)

Kate DeFronzo

Studios: Eye Candy

Friday, 15 August, 2:30 - 3:30 pm
Nokia Theatre

See description page 78.

Days & Hours

3D Primer	Monday, 11 August	8:30 - 10:15 am
3D for Science and Research	Monday, 11 August	10:30 am - 12:15 pm
3D for Gaming and Alternative Media	Monday, 11 August	3:45 - 5:30 pm
3D Screenings	Monday, 11 August	5:45 - 7:15 pm
U2 3D Screening	Monday, 11 August	7:30 - 9 pm
Animated 3D Cinema	Tuesday, 12 August	8:30 - 10:15 am
Live 3D Camera	Tuesday, 12 August	10:30 am - 12:15 pm
3D: Rounding Up the Future	Tuesday, 12 August	3:45 - 5:30 pm

Location

Petree Hall C

Stereoscopic 3D: Research, Applications, and Entertainment

Though we live in a multidimensional world, our media limit us to fewer dimensions, reducing our connection to all that is possible. Modern 3D technology permeates everything from product design to entertainment, from games to animation, from the living room to outer space. In these talks, experts teach the foundations of 3D, from acquisition to projection, from history to the future. Discover how 3D is contributing to medicine and science, and dive into the increasingly immersive worlds of gaming and interactivity. Learn about the latest animated and live-action productions, hear experts speculate about the future, and watch 3D shorts and clips from 3D features - treasures from the past, and previews of tomorrow's achievements.

3D Primer: The Fundamentals of Stereoscopy From Acquisition to Projection

Monday, 11 August, 8:30 - 10:15 am
Petree Hall C

Pioneers of stereoscopy introduce the theories, principles, tools, and techniques that define this burgeoning industry. This session summarizes the history of the field, shows how to capture in 3D, provides details on viewing systems, and lays the foundations for the next two days.

From There to Here: A Stereographic History

Ray Zone
3D Zone

3D 101 (Sticks)

Peter Anderson
3D Director of Photography

How To Get 3D On A 3D Display

Lenny Lipton
REAL D

3D Imaging: That was Then, This is Now

Vince Pace
PACE

3D for Science and Research: From Inner to Outer Space

Monday, 11 August, 10:30 am - 12:15 pm
Petree Hall C

Applications of stereo imaging reach far beyond the movie screen and into the fields of science and medicine. This session looks at the uses of stereoscopy to probe the inner space of our bodies and the outer space of our solar system. It also explores fascinating tools that change the way we think of capturing 3D imagery and how 3D is used to improve product design.

Integrated Multi-Aperture Imaging

Keith Fife
Stanford University

Uses of 3D Stereoscopy in Vehicle Engineering and Design

Elizabeth Baron
Ford Motor Company

Stereoscopic Video on the da Vinci Surgical Platform: 3D Vision for Surgery

David Scott
Intuitive Surgical, Inc.

Stereo Views of the Solar System

Eric M. De Jong
NASA Jet Propulsion Laboratory, California Institute of Technology

3D for Gaming and Alternative Media: How 3D Is Changing the Way We Play

Monday, 11 August, 3:45 - 5:30 pm
Petree Hall C

Imagine yourself inside your favorite game, truly interacting with the treasures you seek or falling through space in a specially constructed immersive world. In this talk, industry experts reveal how stereo gaming, immersive entertainment, and special venues are altering our playtime.

The Power of 3: An Insider's Look at Stereoscopic 3D Gaming

Neil Schneider
Meant to Be Seen

Mark Rein
Epic Games

Designing Theme Parks in the Virtual World

Mark Mine
Walt Disney Imagineering

Production of Live 3D Content for Broadcast

Steve Schklair
3ality Digital Systems

Stereoscopic Computer Animation for Large Screens and Domes

Jeff Kleiser
Synthespian Studios

3D Screenings: A Visual Odyssey

Monday, 11 August, 5:45 - 7:15 pm
Petree Hall C

Don the glasses and dive into some of the coolest 3D content we could find. Animated treasures and live-action cinema combined with fascinating images from stereoscopic research only scratch the surface of this two-hour journey into the third dimension.

U2 3D Screening

Monday, 11 August, 7:30 - 9 pm
Petree Hall C

Animated 3D Cinema: Imaginary Worlds Brought to Life

Tuesday, 12 August, 8:30 - 10:15 am
Petree Hall C

In more than a few projects, animation is practically leaping off the screen and into your lap, flying in front of your eyes, reaching out so close you can touch it. This session goes behind the scenes of several animated features including "Monsters vs Aliens," "Bolt," "Coraline" and "Beowulf."

2D Movies, 3D Movies: Discovering the Difference

Phil "Captain 3D" McNally
DreamWorks Animation

Telling Stories in Depth

Robert Neuman
Walt Disney Animation

Stereo and Stop Motion

Brian Van't Hul
Laika

The Production of 3D Films

Buzz Hays, Sr.
Sony Pictures Imageworks

Live 3D Cinema: Capturing Real-World Depth

Tuesday, 12 August, 10:30 am - 12:15 pm
Petree Hall C

Whether getting the best seats in the house at a U2 concert, journeying to the earth's core, or cowering in your seats in the latest horror film, 3D is taking you places you never thought you could go. This talk features the creators, artists, and technologists in charge of the journey.

A Journey Into 3D

Christopher Townsend
Visual Effects Supervisor

Stereoscopic Post Production & Imaging: Creating U2 3D's Immersive Experience

David Franks
Visual Effects & Imaging Supervisor, U2 3D

Bjork's Wanderlust in 3D: Secrets Revealed

Isaiah Saxon
Sean Hellfritsch
Daren Rabinovitch
Encyclopedia Pictura

Dimensionalization: Creating 3D Movies from 2D Images

Matthew DeJohn
In-Three Inc.

3D: Rounding Up the Future

Tuesday, 12 August, 3:45 - 5:30 pm
Petree Hall C

3D is going from the big screen to the living room, from entertainment to medicine, from the flight deck to the holodeck. This talk explores the possibilities, the realities, and the future.

Moderator
Jim Mainard
DreamWorks Animation

Panelists
Danny Bilson
THQ

Rob de Vogel
Phillips

Rob Engle
Sony Pictures Imageworks

Nick Holliman
University of Durham

Andrew Kostrzewski
Physical Optics Corporation

Rick Rothschild
Walt Disney Imagineering

Days & Hours

Monday, 11 August - Thursday, 14 August

See specific Talks for times.

Location

Petree Hall C and Petree Hall D

Festival Talks

The Computer Animation Festival offers four days of talks and presentations that teach, entertain, inspire, and illuminate. The schedule includes a full-day course on the history of animation, complete with incredible clips of historic and hysterical animation; a rare glimpse inside the genesis of an animation company and their current feature production; and a revealing look at how visual effects artists work with scientists, architects, futurists, and artists to augment all kinds of stories. Learn how to create an animation, from original concept through creation of the animatic, or marvel at how an animation director created a star-studded, full-length, very independent feature. See inside the latest animated shorts from Pixar and Disney. And explore the archeological inspirations behind the latest Mummy feature.

The Process of Animation: A Three-Hour Tour

Monday, 11 August, 8:30 am - 12:15 pm
Petree Hall D

Artist Frank Guthrie guides a tour from story development through animatics, showing examples of work every step of the way. He begins by breaking down the script and separating all the visual elements that will be needed to create a storyboard. Elements such as characters, props, and backgrounds form the panels of the storyboard, which includes camera directions, transitions, and visual effects that help create a more dynamic and exciting animatic. By the end of this talk, attendees will be able to create their own animated masterpieces.

Frank Guthrie
Nickelodeon

Mummy Unwrapped: Director Rob Cohen, Digital Domain, and Rhythm & Hues Unveil Filmic Secrets

Monday, 11 August, 3:45 - 5:30 pm
Petree Hall D

Supervisors and CG supervisors from Digital Domain and Rhythm & Hues present an inside look at the makings of "The Mummy: Tomb of the Dragon Emperor," from the archeological research to animation.

Moderator
Carolyn Giardina
Hollywood Reporter

Rob Cohen

Joel Hynek
Nordin Rahhali
Digital Domain

Derek Spears
Rhythm & Hues Studios

A Brief and Irreverent History of Character Animation: An Entire History in a Single Day

Tuesday, 12 August, 8:30 am - 5:30 pm
Petree Hall D

This very concentrated, occasionally impertinent look at the evolution of frame-by-frame performance illustrates animation's progress and addresses the cultural and social scene surrounding its creation. With over 30 examples of how animated films comment on their own times, this talk traces character animation from its earliest days to the present and even takes a peek or two at what may be coming in this, the most controlled and most expansive of cinematic arts.

Frank Gladstone
Gladstone Film, Inc.

Making of an Oktapodi

Wednesday, 13 August, 8:30 - 9:10 am
Petree Hall D

Third-year students from Gobelins summmarize the production process for their 3D animation short about two octopi.

Emud Mokhberi
Gobelins l'ecole de l'image

The Making of "Big Buck Bunny": An Open-Source Evolution

Wednesday, 13 August, 8:30 - 10:15 am
Petree Hall C

In May 2008, the Blender Foundation released their second open-movie project: "Big Buck Bunny," a funny and furry 3D short about a giant rabbit who gets even with bullying rodents. This session brings together the key people who created the movie and presents all the aspects of an open-source and open-content-based animation studio, and how this affects the creative process. The panelists showcase project files from the studio, and even recreate parts of the film on demand! This 90 minute session starts with a screening of the 10-minute film and ends with a 15-minute Q&A with the audience.

Moderator
Ton Roosendaal
Blender Foundation

Panelists
Sacha Goedegebure, Director/Writer
Andy Goralczyk, Art Director
Nathan Vegdahl, Character Animator
"Big Buck Bunny"

Bassam Kurdali, Director
"Elephants Dream"

Meet the Artists: Festival Animators Join Hal Hickel in an Animated Conversation

Wednesday, 13 August, 9:15 - 10:15 am
Petree Hall D

ILM Animation Director Hal Hickel leads a panel conversation with animators whose work is featured in this year's Computer Animation Festival Competition. Don't miss this opportunity to learn all about the motivation, evolution, development, and process of animation.

A Tribute to the Life and Work of Frank Thomas and Ollie Johnston: Current Legends Talk About Their Inspirations

Wednesday, 13 August, 10:30 am - 12:15 pm
Petree Hall D

This extraordinary session reveals the past and future of animation through the eyes of true genius. It's a conversation about animation with contemporary animation legends inspired by masters Frank Thomas and Ollie Johnston, followed by a short documentary by AnimationMentor.com of never-seen-before footage of these two animation legends.

Moderator
Tom Sito

Panelists
Don Hahn
Theodore Thomas
Dave Burgess
Kevin Koch
AnimationMentor.com

Terra: The Creation of a World, a Species, and a Full-Length, All-Star, Very Independent Animated Feature

Wednesday, 13 August, 10:30 am - 12:15 pm
Petree Hall C

Director Aristomenis Tsirbas, producing partner Dane Allan Smith, and their team screen a selection of short films, music videos, visual effects, and exclusive footage from their animated feature, "Terra." Stories, interspersed with technical tips and behind-the-scenes information, reveal Terra's unconventional evolution.

Producer
Dane Allan Smith

Director
Aristomenis "Meni" Tsirbas

VFX Supervisor
Dimitri Loginowski

Assistant Editor
Sarah Beth Shapiro

Compositor
Allan Nadel

Character Animator
Harry Porudominsky

Pipeline Development
Christian Aubert

Senior CG Sequence Supervisor
Will Wira
MeniThings

Building An Animation Studio: How a Band of Artists Followed Their Dream, Launched a Studio, and Started Developing an Animated Feature Film

Wednesday, 13 August, 1:45 - 3:30 pm
Petree Hall C

Inspiration, imagination, dedication, heaps of talent, and lots of pizza are just some of the ingredients necessary to turn a dream into reality. Last year, a group of brave artists from ILM launched a quest to start an animation studio and make the kind of movies they always loved to watch. One year later, Rob Coleman joins Jamy Wheless, John Helms, and Tim Naylor to share a sneak peek into their animated feature film, "The Fourth Magi."

Co-Director & Co-Producer
Rob Coleman

President & Animation Director
Jamy Wheless

VFX Supervisor
John Helms

Head of Character Development
Tim Naylor
Lightstream Animation Studios

Polygon Pictures: A Quarter Century of Animation

Wednesday, 13 August, 1:45 - 3:30 pm
Petree Hall D

Over the years, many incredible images have emerged from Tokyo-based Polygon Pictures. The company celebrates its 25th anniversary in 2008, and this retrospective reviews the numerous innovative works the studio has produced over the years, from "In Search of New Axis" (1989) to "Street Fighter 4 Trailer" (2008).

Shuzo Shiota
Leo Hourvitz
Polygon Pictures

Disney and Pixar: Two Animation Studios Reveal the Secrets of Their Shorts

Wednesday, 13 August, 3:45 - 5:30 pm
Petree Hall C

Disney presents the story of a lone soldier on the Russian tundra who receives an unexpected visitor, and Pixar tells the story of a magician and his rabbit. This session goes behind the scenes of these two shorts, revealing everything from story to design and the process of animating new characters everyone will love.

Richard Hollander
Pixar Animation Studios

Andy Harkness
Disney Feature Animation

Future History: Three Inspiring Broadcast Projects Peer Into the Future

Wednesday, 13 August, 3:45 - 5:30 pm
Petree Hall D

This session looks beyond entertainment to completely conceivable alternate realities. Look Effects reveals the behind-the-scenes process on development and evolution of two broadcast projects. For "Life After People," a History Channel special, Look's artists created an alternate future to support the program's scientist interviews. "Blown Away: Greensberg, Kansas", produced by Look for Discovery/ Planet Green, shows the process of working with architects and visionaries to rebuild a town with a very green future. And Jellyfish Pictures demonstrates how their artists created a computer-generated, 50-year time lapse for "Carbon Footprint" (also for Discovery), which is nominated for Best of Show in this year's Computer Animation Festival.

Matt Chandler
Fabio Zaveti
Stefano Salvini
Jellyfish Pictures

Max Ivins
Melinka Thompson-Godoy
Adam Avitabile
Look Effects, Inc.

Next Great Talent Search: An International Panel of Educators Reviews Programs and Students

Thursday, 14 August, 8:30 - 10:15 am
Petree Hall C

The process of teaching the art and technology of animation and visual effects is an art itself. And finding the right program, whether you're pushing pixels or numbers, is almost more of a challenge than finding the job on the other side of the degree. Whether you're an instructor curious about other programs, or a student seeking the perfect mentorship, this talk presents insider information from five influential, long-standing, and very different programs.

Moderator
Sande Scoredos
Sony Pictures Imageworks

Panelists
Jim McCampbell
Ringling College of Art & Design

Tim McLaughlin
Texas A&M University

Thomas Haegele
Filmakademie Baden-Württemberg

James O'Brien
University of California, Berkeley

Pam Hogarth
Gnomon

Making "Horton Hears a Who" Into a New Kind of Classic

Thursday, 14 August, 8:30 - 10:15 am
Petree Hall D

A look at the art and technology behind the creation of "Dr. Seuss' Horton Hears A Who," by Fox and Blue Sky Studios. This talk describes the challenge of bringing Ted Geisel's beloved book into a three-dimensional world, the process of creating a style language for the film in design and animation, and ultimately bringing that vision to the screen.

Thomas Cardone
Blue Sky Studios

Future of Character Animation: From Stop Motion to Flash; From Keyframe to Puppetry, Industry Animators Discuss the Road Ahead

Thursday, 14 August, 10:30 am - 12:15 pm
Petree Hall C

This talk addresses the effects of advanced animation technologies on animation production and what that means for animation artists. For example, performance-capture techniques are here to stay, but it has also been shown repeatedly that more traditional means of bringing characters to life still have a major role to play in animation production. What does all of this mean to the artists, performers, actors, and technologists who work together to create great animated films? How do studios, directors, producers, and supervisors decide which techniques will bring their vision to the screen? This talk presents real solutions and guidelines for the people who create and love animation.

Moderator
Frank Gladstone

Panelists
Dave Barclay
Perform FX

Steven Chiodo
Chiodo Brothers

Ken Duncan
Duncan Studio

Don Hahn
Walt Disney Company

Kenn McDonald
Sony Pictures Imageworks

Michelle Papandrew
Producer, "Foster's Home for Imaginary Friends"

Where Science and CG Converge: Examining the Line Between Reality and Fiction

Thursday, 14 August, 10:30 am - 12:15 pm
Petree Hall D

When visual effects magicians start conjuring pixels, the line between reality and fantasy disappears. This talk explores that line and investigates the good, the bad, and the possibilities. Jellyfish Pictures reviews their multi-award-winning work on the BBC series "Fight For Life" and explains the research, the fact-finding, and the visits to the butchers and trauma centers that led to creation and animation of a frighteningly photo-real journey inside the body. Stuart Sumida, a paleontologist and biologist who has served on the creative teams of numerous visual effects and animated features, illustrates how reality contributes to the worlds created by visual effects practitioners.

Philip Dobree
Jellyfish Pictures

Stuart Sumida
California State University, San Bernardino

Fat Panda: Visual Design Development in DreamWorks' "Kung Fu Panda"

Thursday, 14 August, 1:45 - 2:15 pm
Petree Hall D

From design and color theory to modeling and surfacing, this talk provides a look at the design decisions that balanced historical reality with a design conceit in DreamWorks' latest creation.

Wes Burian
DreamWorks Animation

Flash Forward: A Forum on Flash's Increasingly Vital Role in Games, Online Entertainment, Art, and Academia

Thursday, 14 August, 1:45 - 3:30 pm
Petree Hall C

A stellar group of artists and creatives reveals the secrets behind some of the most influencial pieces of Flash animation ever produced. They explain the creative process and explore why Flash is flying off the desktop into web sites, the studio, the classroom, and the gallery, and they speculate about where it might be taking us next. Presenters include experts from TV productions, film, interactive media, and game development.

Moderator
Rita Street
Radar Cartoons

Panelists
Evan Spiridellis
JibJab

Ken Martin
Blitz Agency

Greg Araya
Cartoon Network Studios Flash Unit

Ashley Postlewaite
Renegade Animation

Dave Markowitz
Walt Disney Internet Group

Monster.com "Stork": Making a Photo-Real Stork in Eight Weeks

Thursday, August 14, 2:20 - 2:50 pm
Petree Hall D

In just eight weeks, the team at Framestore CFC created birds, feathers, and a photo-real stork complete with feathers and dynamics using Houdini, Maya, and RenderMan. This talk shows how they did it.

Daniel Seddon
Frametore CFC

Altered Realities: FX Guru Kevin Mack in Conversation With the DemoScene

Thursday, 14 August, 2:55 - 3:30 pm
Petree Hall D

In the DemoScene, artists create huge mind-altering images using tiny file sizes. Combine the images with music, and you have a party. Academy-award-winning VFX Supervisor Kevin Mack, whose work is feaatured in this year's Computer Animation Festival, creates abstract digital math paintings that explore the consciousness that the DemoScene artists alter. His professional and artistic work is based in a wide range of fields, from the mathematics of complexity to neuroscience and human perception. Following his presentation, the talk concludes with a free-form conversation about perception, reality, visualization, and creativity.

Kevin Mack
Sony Pictures Imageworks

William "s_tec" Swanson
Inigo Quitez
DemoScene

El Tigre: Behind the Scenes

Thursday, 14 August, 3:45 - 5:30 pm
Petree Hall C

In 2007, Manny Rivera leapt onto the screen in Nickelodeon's Annie award-winning production "El Tigre." This colorful series follows the adventures of a capricious 13-year old and the villains and superheroes he meets along the way. In this session, the creators, directors, art director, and technical director reveal everything there is to know about story, storytelling, character development, design, and animation. Along the way, they explain how Flash is used as an animation tool for television.

Creator
Jorge Gutierrez

Co-Creator
Sandra Equihua

Supervising Producer & Director
Dave Thomas

Director
Gabe Swarr

Technical Director & Art Director
Roman Laney

Line Producer
Tim Yoon
Nickelodeon

Animation in Commercials: A Look at the Process, the Joy, and the Unmentionables

Thursday, 14 August, 3:45 - 5:30 pm
Petree Hall D

These days, commercials have to be super cool to deter instant DVR-enabled avoidance. In this talk, a stellar group of artists from all over the commercial spectrum explains how they create compelling messages.

Moderator
Limbert Fabian
Radium

Panelists
Dariush Derakhshani
Radium

Gil Baron
Method Studios

Scott Gagain
Amy Calcote
House of Moves

Andy MacDonald
Riot

Days & Hours

Pixar Animation Stuidos	Tuesday, 12 August	8 - 11 pm
Sony Pictures Imageworks	Wednesday, 13 August	8 - 11 pm
LucasFilm	Thursday, 14 August	8 - 11 pm

Location

Nokia Theatre

Production Studio Nights

Pixar Animation Studios

Tuesday, 12 August, 8 - 11 pm

Screening of "The Man Who Planted Trees" Followed by a Conversation With Frédéric Back and John Lasseter

8 - 9 pm

Over the last 20 years or so, John Lasseter has redefined the animation industry, shaping the way we watch animation and showing us the sweetness, complexities, and hilarities in the simplest and most unlikely places.

Frédéric Back, a two-time Academy Award winner for "Crac" and "The Man Who Planted Trees", joins John Lasseter for a rare conversation about the passions to which he has committed his life: animation, art, and the environment.

An exhibit of Frédéric Back's work is available for viewing at the Linwood Dunn Theater of the Academy of Motion Picture Arts and Sciences, Mary Pickford Center for Motion Picture Study, 1313 Vine Street, Los Angeles.

Screening of "The Pixar Story" With Introduction and Q&A by Director Leslie Iwerks and Friends

9 - 11 pm

An in-depth look behind the scenes of the ground-breaking company that pioneered a new generation of animation and forever changed the face of filmmaking. Using never-before-seen footage from the Pixar library, along with historic archival animation and first-hand accounts by animators, studio executives, directors, producers, and voice performers, Academy Award-nominated filmmaker Leslie Iwerks tells the riveting story of the Bay Area start-up that revolutionized Hollywood.

Sony Pictures Imageworks

Wednesday, 13 August, 8 - 11 pm

Saying that Stan Winston helped transform visual effects into a legendary industry is a good beginning to recognizing his contribution and his legacy. He altered the course of movies when he transformed makeup effects from latex to animatronics. His credo ("I don't do effects, I do characters") provided the foundation for a veritable galaxy of interstellar aliens, menacing chrome robots, and predatory dinosaurs. His work blurred the lines between makeup, puppetry, and visual effects.

In films ranging from "Terminator" to "Edward Scissorhands" to "Iron Man," audiences could barely discern where the actor ended and the effects began. Winston inspired legions of directors, visual effects supervisors, and artists to stretch their abilities beyond what they knew to be possible. He challenged our imaginations, inspired our creativity, and showed us worlds we couldn't have conceived. His insatiable curiosity even moved beyond the film world into robotics and artificial intelligence, in innovations that found their way from the labs at MIT to the workshop in Van Nuys. Sony Pictures Imageworks presents an evening of tributes, celebrations, clips, and memories of Stan Winston and his legacy.

A screening of Terminator 2 follows the discussion.

LucasFilm

Thursday, 14 August, 8 - 11 pm

Lucasfilm presents an advance screening of "Star Wars: The Clone Wars," the much-anticipated animated feature film from director Dave Filoni and executive producer George Lucas. This event, hosted by ILM Visual Effects Supervisor John Knoll, begins with a discussion of the film's unique design and signature style. The intergalactic struggle between good and evil continues with a screening of the next "Star Wars" adventure to hit the silver screen.

➡ Days & Hours

Monday, 11 August, Wednesday, 13 August, Thursday, 14 August

See specific Sessions for times.

➡ Location

Hall B

Production Sessions

Panels, roundtable discussions, and conversations about marketing, behind-the-scenes developments, production-related art, digital film production, and retrospectives.

Great Failed Ideas in Production

Monday, 11 August, 10:30 am - 12:15 pm
Hall B

The stories behind the award-winning pictures that almost didn't make it to the big screen. It's often said that we learn more from our failures than our successes, yet we generally only share our success stories in the context of SIGGRAPH. This session gathers respected industry veterans to discuss great ideas that "failed" during the stress of real-world production.

Moderator
Rob Bredow
"Stuart Little," "Polar Express," "Surf's Up"

Panelists
John Dykstra
"Star Wars," "Batman Forever," "Spiderman"

John Knoll
"Star Wars," Pirates of the Caribbean"
Industrial Light & Magic

Apurva Shah
"Ratatouille," "Nemo," "Toy Story 3"
Pixar Animation Studios

Bill Westenhofer
"Golden Compass," "Narnia"
Rhythm & Hues Studios

Pursuit of Awesomeness: The Making of "Kung Fu Panda"

Monday, 11 August, 3:45 - 5:30 pm
Hall B

An in-depth round table discussion by the creative team on "Kung Fu Panda," the 2008 release from DreamWorks Animation. The session summarizes the film's creative aspirations and demonstrates how those creative goals were achieved by looking at specific case studies of three episodes: "Tai Lung Breaks Out of Prison," "Oogway Departs," and "Rope Bridge Fight."

The goal of this session is to show how each department contributed to the film's storytelling, how specific production challenges arose, and how the team overcame them. Specific topics include: the pre-production experience (early test animations to evaluate animation and fighting styles), early-look development and how it progressed to the final look of the film, DreamWorks Animation's first use of pre-visualization as a storytelling tool, and how the death of a main character forced the production process to become the look-development process.

Speakers
John Stevenson, Director
Ramone Zibach, Production Designer
Dan Wagner, Head of Character Animation
Yong Duk Jhun, Head of Layout
Clare Knight, Editor
Markus Manninen, Visual Effects Supervisor
DreamWorks Animation

Machines and Monsters: Tippett and ILM Reveal the Secrets Within "Cloverfield" and "Iron Man"

Wednesday, 13 August, 1:45 - 3:30 pm
Hall B

From monster-ravaged streets to the not-so-friendly skies. Tippett Studios demonstrates the evolution of their "Cloverfield" monster, from tactical shot designs that obscured the bulk of the creature to transforming a multi-camera, hand-held shoot into a stunning final reveal. Then, Industrial Light & Magic unveils Tony Stark's lair, the complexities of building an ironman, and how they swapped metal for pixels, rigging, animating, and lighting, before taking him to the skies in "Iron Man."

Panelists
Ben Snow
Hal Hickel
Doug Smythe
Industrial Light & Magic

Eric Leven
Devin Breese
Chris Morley
Tippett Studio

"Speed Racer": How Digital Domain, ILM, and Sony Pictures Imageworks Transformed a Vintage Anime Into a Wild Ride for the 21st Century

Thursday, 14 August, 10:30 am - 12:15 pm
Hall B

As the numbers of visual-effects shots per film soar into the thousands, a huge army of artists, technical directors, and managers collaborates to create dazzling spectacles. In this session, supervisors from three of the principal studios reveal the psychedelic design, elaborate car animation, and complexities of collaboration required to create a very wild cinematic ride.

Overall Visual Effects Supervisors
John Gaeta
Dan Glass

Mohen Leo
Kim Libreri
Digital Domain

John Knoll
Industrial Light & Magic

Kevin Mack
Sony Pictures Imageworks

Simon Vanesse
Buf Compagnie

➡ Days & Hours

Festival Awards Ceremony	Thursday, 14 August	3:45 pm
Competition Awards Repeat Screening	Friday, 15 August	12:45 - 1:15 pm
Hall of History & Storyboard Exhibit	Monday, 10 August - Friday, 15 August	

➡ Location

Nokia Theatre

Outside Petree Halls

Festival Awards, Hall of History, & Storyboards

Since 1999, the Computer Animation Festival has been considered an official qualifying festival for the Academy of Motion Picture Arts and Sciences Best Animated Short Film award. This year, SIGGRAPH takes the honors a step further, acknowledging the nominees and winners in a fun, lively awards event, hosted by computer graphics luminary Ken Perlin, and featuring a cast of thousands.

The Best of Show, Jury Award, and Student Prize recipients receive a specially designed holographic award created by visionary 3D artist Meats Meier and rendered by Rabbitholes.

The ceremony also honors a special piece with the Well Told Fable prize and presents the Audience Prize, as selected by audience voting after the first four competition screenings.

Best of Show Nominees

Bolides
Supinfocom
FRANCE

Carbon Footprint
Jellyfish Pictures
UNITED KINGDOM

Madagascar: Escape 2 Africa
DreamWorks Animation
USA

Oktapodi
Gobelins, l'école de l'image
FRANCE

The Chemical Brothers "The Salmon Dance"
Framestore CFC
UNITED KINGDOM

Jury Award Nominees

Chump and Clump
GERMANY

Mauvais Rôle
École Supérieure de Réalisation Audiovisuelle
FRANCE

Oktapodi
Gobelins, l'école de l'image
FRANCE

Our Wonderful Nature
HFF Potsdam
GERMANY

The Plush Life
Timothy Heath
USA

Student Prize Nominees

893
Supinfocom
FRANCE

Al Dente
Supinfocom
FRANCE

Bärenbraut
Filmakademie Baden-Württemberg
GERMANY

Blind Spot
Gobelins, l'école de l'image
FRANCE

Mauvais Role
École Supérieure de Réalisation Audiovisuelle
FRANCE

Festival storyboard exhibit featured in Petree Hall.

Hall of History

Information International Demo Reel	Information International	1979
MAGI - Synthavision '82 Demo Reel	MAGI - Synthavision	1982
Light and Shadow	Eihchiro Nakamae	1983
When Mandrills Ruled...	Watterberg	1983
Star Trek II Genesis	Paramount and LucasFilm	1983
The Cube's Transformation	Ron Resch	1984
Digital Productions Demo Ree	Digital Productions	1984
Quest	Sciulli, Arvo and White	1985
The Last Starfighter Excerpts	Digital Productions	1985
Robert Abel and Associates	Robert Abel	1985
Opera Industriel	Pacific Data Images	1986
Omnibus Demo Reel '86	Omnibus	1986
Visitor on a Foggy Night	Hiroshima University	1986
Stanley and Stella – Breaking the Ice	Symbolics Graphics Division & Whitney/Demos Productions	1987
Particle Dreams	Karl Sims, Whitney/Demos Productions	1988
Coca-Cola/AMC	MetroLight Studios	1992
Ren Qu'un Souffle, (A Slight Breeze)	Videosystem	1992

➡ Days & Hours

Monday, 11 August	8:30 am - 6 pm
Tuesday, 12 August	9 am - 7 pm
Wednesday, 13 August	9 am - 6 pm
Thursday, 14 August	9 am - 6 pm
Friday, 15 August	9 am - 2 pm

➡ Location

Throughout Los Angeles Convention Center

See specific New Tech Demo.

New Tech Demos

Interact with the latest systems before they become hot topics in mainstream media and techno blogs. New Tech Demos presents innovative technologies and applications in many fields, including displays, robotics, input devices, and interaction techniques.

New Tech Demo abstracts are presented in the Full Conference DVD-ROM that Full Conference attendees receive with their registration.

Airborne Ultrasound Tactile Display

Hall H

With the recent progress in computer graphics, physical simulation, and visual display technology, demands on haptic interaction techniques are increasing. SIGGRAPH 2007 featured many presentations on visual displays that enabled users to manipulate 3D graphic objects with their hands. If tactile feedback could be provided to the users' hands in 3D free space, the usability of those systems would be considerably improved.

This project demonstrates an innovative tactile display that radiates airborne ultrasound and produces high-fidelity pressure fields with multiple ultrasound transducers based on wave-synthesis techniques. Airborne ultrasound can be applied directly onto the skin without the risk of penetration. Tactile feedback is provided to the users' hands without requiring the use of gloves or mechanical attachments.

Contributors
Takayuki Iwamoto
Mari Tatezono
Takayuki Hoshi
Hiroyuki Shinoda
The University of Tokyo

Animatronics for Control of Countenance Muscles in the Face Using Moving Units

South Lobby

This demonstration advances techniques for robot production, not only for entertainment, but also for education, medicine, sports, and other purposes. The facial-reconstruction modeling was done with clay and produced with the silicon rubber to express the shape and texture of actual muscles as closely as possible.

Contributor
Taisuck Kwon
Kyushu Institute of Design

Ants in the Pants

Hall H

When we hear someone say, "Insects are crawling on my body," we feel horrified. In general, we don't like to imagine that insects are exploring our skin. But this apparently frightening situation sometimes leads to pleasure. For example, many of us played with ants when we were children.

To present this sensation, this project combines a new wearable tactile interface with a visual display to create an interactive tactile display: a glove with a matrix of motors inside. Brushes of specific elasticity are attached to the motors to deliver realistic insect sensations.

Contributors
Keiji Sato
Yoshimi Sato
Michi Sato
Shogo Fukushima
Yu Okano
Kanako Matsuo
Sayaka Ooshima
Yuichiro Kojima
Rika Matsue
Satsuki Nakata
Yuki Hashimoto
Hiroyuki Kajimoto
The University of Electro-Communications

ARScope

Hall H

ARScope is a novel interface for various applications of augmented reality. It employs a retro-reflective projection technology (a display method used in augmented-reality applications), several handheld devices, a head-mounted projector, and several cameras to capture the visual environment.

A superimposed image is projected onto a handheld device covered with retro-reflective material, and the background image is transformed into an image that is suitable for the user's current viewpoint. These techniques enable display of an image of the occluded area without the use of a head-tracking device or markers.

Contributors
Takumi Yoshida
Shinobu Kuroki
Hideaki Nii
Naoki Kawakami
Susumu Tachi
The University of Tokyo

Artifacts of Research: On Singularities

South Lobby

This research rediscovers a classical mathematical model collection - originally made by hand in plaster in the 1800s - and transforms it using contemporary CAD, mathematical-modeling, and rapid-prototyping techniques.

The models shown at SIGGRAPH 2008 represent 23 types of singularities possible on a cubic surface. These models were originally made by Carl Rodenberg, under the direction of the founder of modern topology Felix Klein (1849-1925), and represent an attempt to catalog a portion of the mathematical universe. The display also includes new transparent models of the Clebsch Diagonal Cubic and its famous configuration.

Contributor
Jonathan Chertok
Universal Joint Design

Atta Texana Leafcutting Ant Colony: A View Underground

Hall H

The Atta project maps tunnels and chambers of a vast leafcutting ant colony. A ground-penetrating-radar scan was translated into a 3D model that can be viewed on an immersive visualization system that scales the viewer to ant size. The scanning is nondestructive and is the first time GPR has been used to map a living ant colony.

To achieve this goal, the project combines the site-specific nature of an indexical system, GPR, with the ability of an algorithm to parse the data. The model retains a formal connection with its subject and can be distributed and viewed in many different ways.

Contributors
Carol LaFayette
Fred Parke
Lauren Simpson
Audrey Wells
Igor Kraguljac
Visualization Department, Texas A&M University

Carl J. Pierce
St. Lawrence University

Tatsuya Nakamura
Starz Animation

Bellows: Bringing Digital Animaiton Into the Physical World

Hall H

Bellows is an art installation and cinema project that uses a new animation process. The concept of the zoetrope, a pre-cinema optical toy, is combined with rapid-prototype 3D printing and fast-shutter digital video to tell a story suggesting the destructive and expressive potential of humans.

In Bellows, anthropomorphized concertinas take the place of people. Concertinas serve as the metaphor for humans because both breathe and both have great expressive potential.

Contributor
Eric Dyer
University of Maryland Baltimore County

Bird Watching

Hall K Entrance

Bird Watching is an interactive audio and video installation created specifically to comment on the invisible presence of space satellites. Playful cardboard birds challenge the perception of satellites as remote objective "eyes." This low-tech approach makes remote sensing accessible and satellite surveillance palpable. When activated, the innocuous cardboard birds not only sing, but also spy, suggesting our complicity in creating a culture of surveillance.

Contributors
Kathy Marmor
University of Vermont

Jonathan Decker
University of Maryland Baltimore County

Calakmul: The Adventure

Hall H

This multilingual educational software with eco-archaeology perspectives about the ancient Mayan culture of the Calakmul biosphere was created to inspire young people in Mexico City to experience and embrace their heritage. The project, a gift for the Papalote Children's Museum, is a synthesis of archaeological models; detailed 3D CG reconstructions of a temple, a palace, a ball court, and habitat settings; 2D character animations; illustrations; interactive learning experiences; audio; and text.

Museum-based artifacts are placed within virtually reconstructed tomb dioramas. Narrative animations show the environmental influences of the rainforest and explain fresco murals, stone stelae and glyphs, hut and temple construction, Mayan vaults, cacao drink, chicle-rubber extraction, ball games, traditional clothing, astronomy in architecture, tomb ceramics, and jadeite artifacts. This multi-layered work provides both casual and in-depth exploration as it illuminates the ingenuity of the Mayan people and their enduring legacy.

Contributors
Robert Dunn
Patrick McKiernan
Rex Killian
Marjorie Rishel
Kunal Patel
Kiko Restrepo
May Sin
Thomas Gonzales
Bonnie Bogovich
Julia Hustwit
Liz Rishel
Kinematos Video

Melanie Dunn
Arc Vertuel, Inc.

Confucius Computer: Transforming The Future Through Ancient Philosophy

South Lobby

Confucius computer is a new form of illogical computing that models Confucius' mind and personality. It enables users to experience his historic teachings and philosophies through modern, everyday activities. Based on a model of Eastern thinking and teaching, users can chat and engage in social-network communication with a strict and illogical friend: Confucius.

Contributors
Adrian David Cheok
National University of Singapore
Keio University, Graduate School of Media Design

Eng Tat Khoo
Wei Liu
Xiao Ming Hu
Peter Marini
Xiao Yuan Zhang
National University of Singapore

Morisawa Yukihiro
Shinsuke Makino
Keio University, Graduate School of Media Design

Copycat Arm

South Lobby

Copycat Arm instantly imitates hand and arm motions in front of a high-speed camera so users can enjoy interactive communications with it.

Contributors
Kiyoshi Hoshino
Motomasa Tomida
Emi Tamaki
University of Tsukuba

Diamond Road Online

South Lobby

Diamond Road Online extends the concept of an interactive documentary into the 21st century. A large and extensible corpus of documentary content (video, audio, text, image) can be deposited in a database and presented to users as a guided series of recommendations.

Users can meet characters, follow developing storylines, find counter-arguments and otherwise travel through the world of a documentary with a completely different experience of the content than a traditional documentary film would allow. Personal interests combine with software recommendations, authorial and editorial decisions, and a vast array of media content.

Linked to a three-hour internationally distributed documentary series ("Diamond Road"), Diamond Road Online completely reworks content, storylines, characters, and editorial approach to reveal bias, support personal interpretation, and allow user-generated edits, feedback, response, and content.

Contributors
Richard Lachman
Ryerson University

David Oppenheim
Kensington Communication

Digital Sports Using "Bouncing Star" Rubber Ball Comprising IR and Full-Color LEDs and Acceleration Sensor

Hall H

A new ball that resists strong shocks and suggests a new sport. The ball contains infrared, full-color LEDs and an acceleration sensor. People can play catch with it in a dark place because the ball itself emits bright light. The flashing speed and color of the LED lights change depending on the ball's acceleration when it is thrown by a player or bounces off a floor or a wall.

Contributors
Osamu Izuta
Jun Nakamura
Toshiki Sato
Sachiko Kodama
Hideki Koike
Kentaro Fukuchi
Kaoru Shibasaki
Haruko Mamiya
University of Electro-Communications

/ed

Hall H

Imagine a typical videogame situation featuring swords and magic. The easiest haptic enhancement is to use a controller with a vibration motor. Most haptic game devices focus on delivering sensation to the user's hand. But in virtual game worlds, we experience more than our own destruction of enemies. The enemies also attack us. This role reversal is currently overlooked, but it should be an indispensable part of virtual game worlds. Some researchers have proposed haptic vests that would deliver electric shock, but the result is simply an unpleasant irritation. In /ed, the enhanced reality of being slashed by a sword is achieved by presenting tactile and auditory motion on the player's abdomen and back.

Contributors
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Hiroyuki Kajimoto
The University of Electro-Communications

Yasushi Fukuzawa
Tokyo Polytechnic University
Hideyuki Ando
Osaka University

Junji Watanabe
NTT Communication Science Laboratories
Japan Science and Technology Agency

Emotional Touch: A Novel Interface to Display "Emotional" Tactile Information to a Palm

Hall H

This handheld device displays "emotional" not "literal" tactile information. The system is composed of two oppositely arranged speakers. A user holds the speakers in both hands, and the speakers vibrate the air between the speakers and the palms. The user's palms feel suctioning and pushing sensations from the changing air pressure. Spatial distribution of the pressure is uniform, and the user can feel pure force without any sensation of edges.

Because the speakers can present tactile sensations in a very wide frequency range, the system presents many types of high-quality tactile sensations, such as liquid, small objects, and living matter.

Contributors
Yuki Hashimoto
Hiroyuki Kajimoto
The University of Electro-Communications

FingerSight: Fingertip Control and Haptic Sensing of the Visual Environment

Hall H

FingerSight is the underlying concept for a visual sensing device with haptic feedback that allows users to manipulate remote objects by gesture. The current model utilizes a small finger-mounted video camera to track graphical controls on a computer screen. Vibro-tactile feedback alerts users when they have locked onto a control.

Contributors
John Galeotti
Roberta Klatzky
Mel Siegel
Carnegie Mellon University

Samantha Horvath
Brock Nichol
George Stetten
University of Pittsburgh

ForceTile: Tabletop Tangible Interface With Vision-Based Force-Distribution Sensing

Hall H

ForceTile is a novel tabletop tangible interface that detects force distribution, position, rotation, and ID. In previous optical force sensors, an elastic body and cameras are fixed together. With this system, users can freely move tile-shaped elastic bodies on the tabletop display. First the system detects the position, rotation, and ID of each interface on the tabletop by position markers attached on bottom surfaces of the tiles.

Then it calculates the force vectors on each interface by using cameras and IR transmitters underneath the table. The interface does not disturb the back projection because it uses transparent heat-insulating material as the force markers and a special tabletop screen. Users control projected images with their fingers in various ways, such as moving, pushing, pinching.

Contributors
Yasuaki Kakehi
Japan Science and Technology Agency

Kensei Jo
Katsunari Sato
Kouta Minamizawa
Hideaki Nii
Naoki Kawakami
Takeshi Naemura
Susumu Tachi
The University of Tokyo

GhostGlove: Haptic Existence of the Virtual World

Hall H

In the real world, we usually do not consciously perceive haptic sensations. However, if haptic sensations are absent or if they are not of the quality desired, our perception of the world is degraded. This project represents the feelings of discomfort in virtual reality interactions and shows that haptic sensations play a decisive role in inciting cognitive functions in a virtual environment.

GhostGlove delivers haptic sensations to the entire hand (each finger and the palm), and it integrates the haptic sensations with visual sensations to enable recognition of the definite existence of the virtual world. This method is based on a novel technology that provides significantly realistic sensations of touch and the dynamics of virtual objects by reproducing perceived cutaneous stresses, and it provides highly realistic experiences in the virtual world.

Contributors
Kouta Minamizawa
Sho Kamuro
Souichiro Fukamachi
Naoki Kawakami
Susumu Tachi
The University of Tokyo

IncreTable

Hall H

With IncreTable, users place virtual domino blocks with digital pens. A depth camera recognizes physical objects and gestures. Objects provide virtual terrain modification, influencing game dynamics. In addition, small robots move around the table and interact with virtual and real items.

Contributors
Jakob Leitner
Media Interaction Lab

Kyungdahm Yun
Woontack Woo
Gwangju Institute of Science and Technology

Maki Sugimoto
Masahiko Inami
Keio University

Peter Brandl
Thomas Seifried
Michael Haller
Media Interaction Lab

Infinite 4D Fish

Hall H (Between Slow Art and The Studio Areas)

Infinite 4D Fish is a unique new mixture of sculpture, computer graphics, and lenticular 3D images. It displays a CG animation that includes a fish with tentacles and a lenticular image of it, then transforms the display into a real neural sculpture in vivid color.

Dimensional intersections generate a 4D sculpture that viewers can walk through as they enjoy the gradually changing images of imaginary fish. The lenticular display includes a massive real structure on its surface, so it displays a transformation from 2D animation to lenticular 3D imagery.

Contributor
Yoichiro Kawaguchi
The University of Tokyo

Landscape Bartender: Landscape Generation Using a Cocktail Analogy

South Lobby

With this system, users generate landscapes by combining "ingredients." For example, the recipe for a Tequila Sunrise combines orange juice and grenadine to refer to a glowing sun in the morning sky. Users select a bottle containing the intended landscape element and pour an appropriate amount of water into a shaker. The amount of water used from each bottle determines the ratio of landscape elements.

The relief of the surface and the position of each element are changed by shaking the shaker. After shaking, users pour water into a cocktail glass, and the resulting image is displayed when the glass is placed on a coaster.

Contributors
Takahiko Noda
Kentarou Nomura
Naoyuki Komuro
Tao Zheng
Chen Yang
Kazunori Miyata
Japan Advanced Institute of Science and Technology

Latte Art Machine

Hall K Entrance

Displaying images on the surface of a hot beverage is a non-trivial task. Certain drinks, however, have a tiny layer of bubbles on top, which provides sufficient isolation for colorant droplets to form a clear and sustainable image.

Latte Art Machine exploits this phenomenon to render the most stunning latte art images on a variety of premium espresso-based drinks. The machine explores a new medium by combining existing inkjet technology with the freedom of artistic expression. SIGGRAPH 2008 attendees are welcome to enjoy their own graphic designs on latte.

Contributor
Oleksiy Pikalo
OnLatte

Maglev Haptics! Butterfly Haptic's New User-Interface Technology

Hall H

Available haptic-interaction devices are small back-driven robot arms, which include mechanical elements that can limit fidelity due to friction, backlash, link bending, and motor cogging. This Carnegie Mellon University project, sponsored by the National Science Foundation, uses magnetic levitation in a practical non-mechanical haptic device that avoids these problems.

Contributors
Ralph Hollis
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Bert Unger
Dan O'Halloran
Matt Pucevich
Joey Liang
Mark Dzmura
Kei Usui
Carnegie Mellon University

Beth Hollis
Butterfly Haptics

Matsumoto-jo: A Virtual 16th-Century Japanese Castle

Hall H

Museum exhibitions on historical subjects involve presentation of a wide range of source material ranging from material artifacts to architecture, oral histories, and performance art. Matsumoto-jo is a model for a new kind of history exhibit that integrates an unprecedented range of source material in an immersive and interactive format.

Contributor
Jonathan Amakawa
Studio Amakawa

MDS (Mobile-Dexterous-Social) Robot for Human-Robot Teamwork

South Lobby

A humanoid robot with a novel combination of mobility, dexterity, and human-centric communication and interaction abilities.

Contributors
Cynthia Breazeal
Mikey Siegel
Matt Berlin
Jesse Gray
Massachusetts Institute of Technology

Rod Grupen
Patrick Deegan
University of Massachusetts Amherst

John McBean
Kailas Nerendran
Xitome Design

Jeff Weber
Meka Robotics LLC

MeisterGRIP: Cylindrical Interface for Intuitional Robot Operation

Hall H

MeisterGRIP independently measures the contact points and grasping-force vectors of the five fingers and the palm by vision-based tracking of the markers in an elastic body. In any grasping posture or position, the device can relay the user's handling to the robot.

Contributors
Shuji Komeiji
Katsunari Sato
Kouta Minamizawa
Hideaki Nii
Naoki Kawakami
Susum Tachi
The University of Tokyo

mHashup: Fast Visual Music Discovery Via Locality-Sensitive Hashing

South Lobby

mHashup is a novel visual interface to large music collections, such as today's million-song download services, for discovering musical relationships among tracks. Users engage in direct on-screen query and retrieval of music fragments in an instantaneous feedback flow performed by a locality sensitive hash table in secondary storage.

mHashup facilitates both professional music searches (such as musicologists and copyright lawyers seeking the origins of sampled music with location markers precisely given for each returned track) and end-user music applications (such as discovery of "dark media" by its relationship to known "hot" items). The visual/auditory display of results incorporates summaries of retrieved tracks and facilitates a user-interaction feedback cycle for refining and expanding music discovery processes. mHashup's visual interface uses the core functionality of a content-based search engine as a visual grammar to be explored by direct manipulation.

Contributors
Michela Magas
Michael Casey
Christophe Rhode
Goldsmiths Digital Studios

Multi-Focal Compound Eye: Liquid Lens Array for Computational Photography

Hall H

A novel imaging system that captures multi-focal compound images for computational photography. The system consists of an array of 64 liquid lenses and a high-resolution video camera behind the array. Each lens is 7.75 milimeters in diameter and has no moving mechanical parts, but its focal length can be instantly changed by electric signals.

The lenses are arranged on a planer board in an 8 x 8 matrix whose size is 66 milimeters in width and height, with electric lines for independent focus control. The video camera passes images through the array at 2048 x 2048 pixels at 15 fps. Since the focus of each lens is independently controllable, the system is flexible, and it can capture light fields of various types of target scenes. This demonstration shows several examples of interactive visualization of captured light fields as a suggestion of the future of computational photography.

Contributors
Kensuke Ueda
Dongha Lee
Takafumi Koike
Keita Takahashi
Takeshi Naemura
The University of Tokyo

NanoChromics Technology: Printed Smart Colors

Hall H

NTERA's NanoChromics technology represents a breakthrough in the ability to incorporate reflective, natural color effects into products, applications and packaging, totally unencumbered by form-factor limitations. NanoChromics enables products and packaging that can communicate vital information to consumers, based on natural colors, with ultra-low power demands. Printed smart colors will revolutionize the way products are made, packaged, secured, and used.

Contributors
Chris Giacoponello
Alain Briancon
NTERA, Inc.

Optical Tone: Dynamic Color Composition

Hall H

For centuries, human color perception under dynamic natural light has been one of the dominant factors in the creative process of painting and other forms of visual expression. Today, RGB monitors and LED devices are commonly used to produce color and light in daily life.

This project presents:
- An algorithm to control RGB output devices along with the elements of lightness, hue, and chroma.
- A dynamic full-color LED device.

Contributor
Tsutomu Mutoh
International Media Research Foundation

"Origami Optics" for Ultra-Thin Imagers

Hall H

Most camera lenses refract light, leading to the familiar cylindrical package geometry. For some applications in which extended focal length or reduced track length are required, concentric mirrors can be used to effectively reduce barrel length. Recent advances in diamond machining and image processing make it possible to take this approach to a new extreme.

With up to eight reflections, large ray angles, and a lens shaped more like a lens cap than a tube, this so-called Origami Optics approach allows us to squeeze long focal lengths into a thin package and still collect enough light for fast, sharp exposures.

This new class of imagers was developed under the MONTAGE program of the US Defense Advanced Research Projects Agency (DARPA). The resulting prototypes have yielded images comparable to images provide by much larger commercial "compact" cameras.

Contributors
Eric Tremblay
Joseph Ford
University of California, San Diego

Ronald Stack
Rick Morrison
Distant Focus Corporation

Perception-Based High-Definition Haptic Rendering

Hall H

The demonstration focuses on two haptic experiences: sensing the composition and stiffness of an object, and estimating dynamics for multiple objects. Slight vibrations express the differences between materials and degrees of stiffness. Haptic rendering reproduces them with standard-frequency haptic devices by adding vibration. For interaction with multiple objects, parameters of motion such as inertia, viscosity, and impulse describe the dynamics of the objects.

Contributors
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Hironori Mitake
Makoto Sato
Tokyo Institute of Technology

Programming Robots by Haptic Means

South Lobby

Children are highly creative when left to figure out a toy by themselves. Blessed with wild imagination, they can turn the simplest objects into the most advanced playthings. This project provides children with a simple method to program robots through audio and haptic interaction.

Traditional desktop, keyboard, and mouse interfaces impose rules and require understanding of the computing environment. These are obstacles to the creative mind of a child. This system allows children to program a robot in the same manner they would interact with it, by touching it and talking to it. By interacting with a few of the robot's sensors, a child can define the robot's actions and behavior, and even cause behavioral changes in the robot.

Contributors
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Keiji Yamada
NEC Corporation

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Graduate School of Media Design, Keio University

Rome Reborn

Hall G

The largest virtual historical reconstruction, cultural heritage, and digital archeology project undertaken to date. Approximately 7,000 reborn buildings recapture Rome at the peak of its glory, in 320 AD, at the time of Constantine the Great.

Contributors
Bernard Frischer
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Gabriele Guidi
Politecnico di Milano

Joel Meyers
Past Perfect Productions

Cassie Thibodeau
Antonio Salvemini
mental images GmbH

Pascal Müller
Procedural Inc.

Peter Hofstee
Barry Minor
IBM

Stop-Motion Goggles

Hall H

This simple wearable device expands visual perception of moving objects by allowing users to perceive visual information selectively through a high-speed shutter. Users can easily observe not only periodic rotational motion such as rotating fans or wheels, but also random motion like a jumping ball.

In effect, Stop-Motion Goggles are time-domain sunglasses, which ease viewing by suppressing bright light. Stop-Motion Goggles make it easy to see moving objects by temporally controlling optical density. The system induces physiologic effects similar to the effects of a stroboscope, which augments human visual perception of moving objects in dark environments.

Contributor
Naohisa Nagaya
The University of Electro-Communications

Superimposing Dynamic Range

Hall H

A calibrated projector-camera system for automatic registration, scanning, and superimposition of hard copies.

This project shows:
- How high-dynamic-range content can be split for linear devices with different capabilities.
- How luminance quantization can be optimized with respect to the non-linear response of the human visual system as well as for the discrete nature of applied modulation devices.
- How inverse tone-mapping can be adapted when only untreated hard copies and soft copies are available.

This system achieves contrast ratios of over 45,000:1 with a peak luminance of more than 2,750 cd/m2, and it could technically reproduce more than 620 perceptually distinguishable tonal values. It attains color-space extensions of up to factor 3.3. Hard-copy resolution can be several thousand dots per inch, while luminance and chrominance are modulated with a registration error of less than 0.3 milimeters.

Contributors
Oliver Bimber
Bauhaus Universitet Weimar

Daisuke Iwai
Osaka University

Tangible Workbench

Hall H

Changeable markers provide completely new possibilities for interaction on a tangible user interface (TUI). The heart of the solution is a set of changeable markers, which upgrade a TUI from a classic presentation tool to a work tool. This tool can be used in virtual factory planning, infrastructure planning, and product configuration.

Contributor
Thomas Kienzl
KOMMERZ

Traversing Complex Environments Using Time-Indexed High-Dynamic-Range Panoramas

Hall H

This system demonstrates practical capture and display of multi-viewpoint, synchronized time-lapse panoramas in high dynamic range. The capture technique performed well during demanding archaeological site work at Chichén Itzá, México, for the National Science Foundation project Maya Skies.

The demonstration features a novel viewer that allows the user to quickly traverse the image data generated by the capture system via embedded links drawn in the interface. In timed tests, users are able to identify environmental elements and search for scene features much more rapidly using this system instead of a typical image viewer, and the time advantage scales as the database size increases.

Contributor
Kevin Cain
INSIGHT

Two-Dimensional Communication

Hall H

An alternative technology for ubiquitous computing and sensor networks. When wired networks are used for such applications, it is quite difficult to wire each network device, and the network can become highly complex. While wireless networks do not suffer from complex wiring, they cannot provide power to network devices.

Contributors
Kei Nakatsuma
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The University of Tokyo

Hiroto Itai
Cellcross Co. Ltd.

UlteriorScape: Optical Superimposing on View-Dependent Tabletop Display and Its Applications

Hall H

UlteriorScape offers novel intuitive tangible interactions on a tabletop display. It uses simple screens as additional displays as well as input tools.

Contributors
Yasuaki Kakehi
Japan Science and Technology Agency

Takeshi Naemura
The University of Tokyo

wUbi-Pen: Windows Graphical User Interface Interacting With Haptic Feedback Stylus

Hall H

Haptic styli and a new interaction scheme for the Windows graphical user interface based on haptic feedback events such as clicking, dragging, dropping, scrolling, moving, etc. Additional application areas are an interactive digital sketchbook that provides haptic and auditory feedback, a tactile image display and a simple fitting puzzle based on haptic cues.

Contributors
Ki-Uk Kyung
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Electronics and Telecommunications Research Institute

You Are the Interface! ZCam, 3DV's Depth-Sensing Camera

Hall H

3DV Systems has developed and successfully launched ZCam, a low-cost PC camera that uses the company's proprietary depth-sensing technology to capture the three dimensions of objects in real time.

Contributors
Zvi Klier
Giora Yahav
Tomer Barel
Charles Bellifield
Rich Flier
3DV Systems

Days & Hours

Monday, 11 August 9 am - Midnight
Tuesday, 12 August 12:01 am - 5 pm

Location

Room 150 and 151

FJORG!

FJORG! Is an iron-animator event. Sixteen three-person teams of CG animators from around the world forgo sleep and resist several staged distractions for 32 non-stop hours to produce the best character-driven animation in the universe.

Thanks to Our Corporate Sponsor:
DreamWorks Animation

FJORG! Teams

Monsieur Goldswarthy
Alessandro Ceglia
Jon Gutman
Andy Lyon

Ragnarok
Ken Robkin
Bill Buckley
Jay Grenier

DeMenteed
Jonathan Wondrusch
Ian Weyna
Alexiss Memmott

Studio teAM
JJ Pastore
Chris Schloemp
Mark DeRidder

Grojf
Jacob Patrick
Kevin Rucker
John Nguyen

Team Rocketpants
Neil Bonsteel
Brianne Francisco
Riannon Delanoy

The Re-Animators
Wes Storhoff
Ignacio Barrios
Brian Monroe

Mouthful of Cookies
Clayton Miller
Troy McCormick
Bryan Larson

CBK
Benjamin Rosales
Christopher Ryan Torres
Krys Wada

Super Special Awesome
Daniel Lane
Jae Park
Kelly Kim

Trikings
Jeff Gill
Will Patrick
Will White

Digital Shamans
Natascha Evans
Kevin Scott
Francine Mangin

Crappy and Happy
Remi Tjon Ajong
John Coomey
Philip Rudolph

The Mexicutioners
Hunter Brown
Lindsey Olivares
Kim Hazel

DarkNauts
Francisco Martinez
Mihai Cernusca
Erik Eidukas

The Fjantastic Fjorgers
Valerie Morrison
Brad Bradbury
Sean Coleman

➡ Days & Hours

Monday, 11 August	8:30 am - 6 pm
Tuesday, 12 August	9 am - 7 pm
Wednesday, 13 August	9 am - 6 pm
Thursday, 14 August	9 am - 6 pm
Friday, 15 August	9 am - 2 pm

➡ Location

Hall H

Art & Design Galleries | Design & Computation

SIGGRAPH 2008 presents the first SIGGRAPH exhibit on the topic of design and computation. The exhibit illuminates the intersection of these two themes:

- Analytical and generative methods for design. This theme examines work in such areas as cellular automata, shape grammars, parametric design, fractals, and related topics. It explores analytical and generative grammars that connect the past and future, bridging vernacular with contemporary examples.

- Design and digital fabrication technologies. This theme focuses on artifacts from various design disciplines (from jewelry design, textiles, and furniture to large-scale sculptures and architectural spaces) developed with digital fabrication technologies.

The SIGGRAPH 2008 design and computation exhibit provides multiple layers of engagement, from representational (for those interested in the aesthetics of artifacts) to speculative and philosophical, and addresses several different facets of the SIGGRAPH community.

Design & Computation Panels *(Full Conference Access Only)*

Complexity

Monday, 11 August
3:45 - 5:30 pm
Room 411

How do architects, artists, and designers define complexity in the context of their work? How do tools and methods used by architects, artists, and designers contribute to complexity? Is complexity perceived as a desired element of the work? Is it embraced after being analyzed, or has it emerged? How do artists and designers gain "creative insight into underlying structure?"

Moderator
Jason Winstanley
Autodesk, Inc.

Panelists
Ajmal Aqtash
Skidmore, Owings & Merrill LLP

Onur Gün
Kohn Pedersen Fox Associates and Smart Geometry

Sawako Kaijima
Adams Kara Taylor

Qingyun Ma
USC School of Architecture

Jenny Sabin
Peter Lloyd Jones
University of Pennsylvania

Steven Sanderson
SHoP Architects

Satoru Sugihara
Morphosis

Craftsmanship

Thursday, 14 August
10:30 am - 12:15 pm
Room 406 AB

What is the relationship between creator, tool, and final creation in art, design, and architecture today? This panel explores craft as it relates to digitally driven fabrication. Artists and designers reflect on how they conceive their pieces. Would mediation through a digital fabrication process alter this relationship? What is the notion of risk and its role in craftsmanship? How have digital tools redefined the role of risk in today's design, architecture, and art production? Finally, who are the "crafts-people" of today? Where are these communities emerging? Is craft something that describes the production of artifacts, or does it refer to a way of doing things?

Moderator
Phil Carrizzi
Kendall College of Art and Design

Panelists
Phil Bernstein
Autodesk, Inc.

Zoe Boira Coombes
Commonwealth

Bruce Gitlin
MILGO/BUFKIN

Neil Katz
Skidmore, Owings & Merrill LLP

Trevor King
DuPont Surfaces

Design & Computation Pieces

African Kuba Textiles

This project illustrates the application of a generative model to interpret the geometric structure inherent in Kuba textiles by ascribing a shape grammar. Contemporary, new design variations, created through grammar variations, are fabricated on a computerized loom.

The Generative Design Team

Cheryl Kolak Dudek
Margarita Lypiridou
Nasim Sedaghat
Sudhir Mudur
Fred Szabo
Lydia Sharman
Thomas Fevens
Concordia University
Montréal, Québec, Canada

Branching Morphogenesis

Branching Morphogenesis investigates the part-to-whole relationships revealed during generation of branching structures formed by interacting vascular cells. The study and quantification of this network allows for a greater understanding of how variable components give rise to structured networks in biology and architecture.

Jenny E. Sabin
Peter Lloyd Jones
Annette Fierro
Jonathan Asher
Andrew Lucia
University of Pennsylvania
Philadelphia, Pennsylvania USA
www.cabin-studio.com

Continua

The concepts of continuity and potential infinity have been central themes of Hauer's opus from very early on in his career as a sculptor. In partnership with Enrique Rosado, Hauer currently explores digital production of his Continua series using digital means, specifically design transformations, creation of custom tools, and CNC milling techniques.

Erwin Hauer and Enrique Rosado
EHR Associates LLC
Connecticut, USA
erwinhauer.com

Curved Origami

By modeling paper as an idealized mathematical surface and applying theorems from differential geometry, we can develop methods for analyzing and designing curved origami shapes.

Jeannine Mosely

Fourier Carpet and Body Blanket

Fourier Carpet and Body Blanket combine architecture, weaving, and computational systems. Sabin's work examines the contradictions of tradition and innovation by recombining existing albeit disparate systems.

Jenny Sabin
CabinStudio
Department of Architecture, University of Pennsylvania
Philadelphia, Pennsylvania USA
www.cabin-studio.com

Gantenbein Vineyard Façade, Fläsch

This robotic construction technology, developed at the ETH Zürich, lays individual bricks precisely according to programmed parameters, at the desired angle and at the exact prescribed intervals.

Bearth & Deplazes With Gramazio & Kohler
Department Architektur, ETH Zürich
dfab.arch.ethz.ch

Ice-rays

Ice-rays are a type of traditional Chinese lattice used in ornamental window grilles. Shape grammar rules for ice-rays are applied to make examples of ice ray windows, fabricated with CNC milling technology.

George Stiny
Massachusetts Institute of Technology,
Cambridge, Massachusetts, USA
architecture.mit.edu/computation.html

Islamic Patterns

Kaplan's work provides an opportunity to extend the range and scope of Islamic star patterns beyond the boundaries of the historical canon. His "Islamic parquet deformations" exhibit a slow geometric evolution in space.

Craig S. Kaplan
University of Waterloo, Canada
www.cgl.uwaterloo.ca/~csk

Fabrication by Precision Laser, Inc.

The making of this project was made possible by the generous material donation by DuPont Surfaces.

Kolam

Kolam is a traditional Indian art form, executed by women, in which drawings are made at the entrances of the home. The tradition and craft for drawing these algorithmic patterns is passed from mothers to daughters and has been for centuries.

This entry was made possible with the generous support of Professor Ketki Dhanesha and her students Shashikala Sathyamurthy, Pallavi Naik and Samir Bellare from the Indian National Institute of Design in Bangalore. ketki.dhanesha@gmail.com

A Landscape of 3D Printed Skyscrapers

3D printed models of skyscrapers from number of architectural offices represent a glimpse into the architects' design process, where numerous variations are explored, and overall form and façade articulation are developed while creating a skyscraper.

Architecture Research Office/Della Valle Bernheimer
Evan Douglis Studio
Foster + Partners
Grimshaw
HOK
Kohn Pedersen Fox Associates
Morphosis
Skidmore, Owings & Merrill LLP
SHoP
Zaha Hadid Architects

This SIGGRAPH 2008 curated project was made possible through the generous 3D printing donations from the following companies:

York Technical College/3D Systems
http://yorktech.com

RedEye ARC
http://redeyearc.com

EOS of North America, Inc.
http://eos.info

Mathematical Sculptures

Grossman's intuition is always seeking order and symmetry: the designs exist first as visualizations, then as virtual 3D models and then they enter the physical world by various computer-mediated manufacturing processes (3D metal printing).

Bathsheba Grossman
Bathsheba Sculpture LLC
Santa Cruz, California USA
bathsheba.com

Nanjing South Station

A competition entry, KPF's design for Nanjing South Station was but one of many stations planned as part of a major expansion of China's high-speed and regular-service train lines. By designing parametrically, the design team generated a form that was the absolute product of the technology from which it was imaged.

The CNC milling of the massing model for this project was made possible through the generous donation from SITU Studio: www.situstudio.com

Kohn Pedersen Fox Associates
www.kpf.com

Omi.MGX

The shape of the Omi.MGX lamp, together with the natural flexibility of the polyamide, creates the impression of a biological mechanism.

Assa Ashuach and Materialise.MGX
Leuven, Belgium
www.assaashuach.com
www.materialise-mgx.com

One_Shot.MGX
The One_Shot.MGX foldable stool is an investigation of using rapid prototyping and rapid manufacturing technologies in the field of industrial design.

Patrick Jouin and Materialise.MGX
Leuven, Belgium
www.materialise-mgx.com

Parametric Urbanism, Procedural Complexity
Zaha Hadid Architects uncovers internal correlations and recursive relationships in its design practice at multiple scales from the detail to the urban. Parametric Urbanism and Procedural Complexity demonstrate how ZHA's work challenges current thinking in design and computation.

Nils Fischer and Shajay Bhooshan
Zaha Hadid Architects
London, United Kingdom
www.zaha-hadid.com

Phare Tower, La Défense
The Phare Tower by the Los Angeles-based Morphosis, an architectural practice headed by Thom Mayne, is a 300-meter skyscraper that will be built in Paris district of La Défense in 2012.

Morphosis
Santa Monica, California USA
www.morphosis.net

Ratio.MGX
The design for Ratio.mgx is a result of a study of phyllotaxis (the principles governing leaf arrangement), mathematical structures, and the rational and irrational distribution patterns in nature.

Naomi Kaempfer and Materialise.MGX
Leuven, Belgium
www.materialise-mgx.com

The Search of Form, the Search of Order: Gaudí and the Sagrada Familia
Behind the seemingly erratic appearance of complex forms and spaces, the work of Antoni Gaudí, the architect of the Sagrada Familia in Barcelona, epitomizes the synthesis of plain shapes and simple geometrical operations.

Carlos Barrios
School of Architecture and Planning
The Catholic University of America
Washington, D.C. USA
architecture.cua.edu

This curated project was made possible by the generous 3D printing donation from Z Corporation

Strato
Strato is a collection of textile-based jewelry, bracelets, and accessories for clothing and fashion designed on a computer-controlled loom.

Anna Silberschmidt and Nicola Sansò
Studio Aphorisma
Firenze, Italy

Tensor Shades
The Tensor Shades project explores a process that preconditions the design space by combining two types of spatial information (structural information and desired lighting information) to create a design that maintains structural integrity and formal consistency.

Sawako Kaijima and Panagiotis Michalatos
Adams Kara Taylor
London, United Kingdom
akt-uk.com

Tropism
The Tropism vase series is not only a reflection of the complexity and mutability of the botanic world, but also an application of algorithmic, code-driven art to complex topology and material form.

Commonwealth and Joshua Davis
New York USA
www.commonwealth.nu
www.joshuadavis.com

Visual-Physical Design Grammars
Two complementary areas of computational design are brought together in this work. The visual, aesthetic aspects of the research are explored through shape grammars. The physical design and manufacturing aspects are explored through advanced digital design and fabrication technologies. The project builds on recent work on mono-material, interlocking component-based assemblies with parts that can be fabricated with CNC machines and assembled easily by-hand.

Terry Knight
Larry Sass
Massachusetts Institute of Technology
Cambridge, Massachusetts USA
architecture.mit.edu/computation.html

Student Research Team
Kenfield Griffith
Ayodh Vasant Kamath
Steve Preston
Tal Goldenberg

Weaving Public and Private: Interior Wall Studies
This sample interior wall panel was conceived as a 25-meter-long and 15-meter-tall screen that consists of solid, repeating Corian components that both hang together structurally and weave public and private spaces.

Neil Katz
Skidmore Owings and Merrill LLP
New York USA
www.som.com

XURF, HyperSurfaces
XURF exemplifies a morphable rigid curved surface constructed from continuous sheet materials using a proprietary forming process. HyperSurfaces are new surface subdivisions that combine aperiodic tilings with any curved surface.

Haresh Lalvani
Pratt Institute
Brooklyn, New York USA

Fabricator/Sponsor
Milgo-Bufkin

➡ Days & Hours

Monday, 11 August	8:30 am - 6 pm
Tuesday, 12 August	9 am - 7 pm
Wednesday, 13 August	9 am - 6 pm
Thursday, 14 August	9 am - 6 pm
Friday, 15 August	9 am - 2 pm

➡ Location

Hall H

Art & Design Galleries | Slow Art

As our machines maneuver around the "performance limits" suggested by Moore's law, we are compelled to imagine what is analogous for humanity. What limits do we have, need, or want when it comes to speed? It is with this question in mind that we asked artists to reconsider the paradigm of speed and instead consider the concept of "slow art."

In the Slow Art gallery, the interpretations are quite personal. Whether procedural or literal, material or conceptual, the works consider the component of life that is always in short supply: time. The works are presented in four categories: Erosion, Hybrids, Rhythms, and Traversal.

Informal Artist Talks

For an updated list of the informal artist talks, please check signage in the Slow Art and Design and Computation Galleries or the web site for further details. (Times subject to change.)

Slow Art - Hall H
Design & Computation - Hall H

Erosion

Tuesday, 12 August, 9 - 9:45 am
The Life and Death of Energy - Autonomous Objects
Anab Jain

Tuesday, 12 August, 6:15 - 7 pm
Water Planet
Anna Ursyn

Hybrids

Tuesday, 12 August, 9:45 - 10 am
RealSnailMail [RSM]
Vicky Isley and Paul Smith

Tuesday, 12 August, 5:30 - 6:15 pm
Associative Audio Design
Dennis De Bel

Rhythms

Wednesday, 13 August, 2:15 - 3 pm
Spacequatica
Ed Cookson (The Sancho Plan)

Thursday, 14 August, 3 - 3:45 pm
Skorpions
Joanna Berzowska

Traversal

Thursday, 14 August, 3:45 - 4:15 pm
Meros: Remapping Experiences of Light in the Urban Daily Journey
Dylan Moore

Thursday, 14 August, 4:15 - 5 pm
Wonderland
Hye Yeon Nam

Erosion

These works investigate the nature of material existence. They incorporate the wear of time and repetition to highlight and explore the processes of disintegration and entropy.

S[tr]eam

Edrex Fontanilla
Brown University
Providence, Rhode Island USA

Robert Goldschmidt
Tampa, Florida USA

Oasis

Yunsil Heo
Hyunwoo Bang
University of California, Los Angeles
Los Angeles, California USA

Life and Death of Energy Autonomous Devices

Anab Jain
Alex S. Taylor
Microsoft Research
Cambridge, United Kingdom

Migrations

Shawn Lawson
Rensselaer Polytechnic Institute
Troy, New York USA

Dark Days - New York

Gabriele Peters
University of Applied Sciences and Arts Dortmund
Dortmund, Germany

Tiled Faces

Nathan Selikoff
Orlando, Florida USA

The Verge

Gregory W. Shirah
Columbia, Maryland USA

Water Planet

Anna Ursyn
University of Northern Colorado
Greeley, Colorado USA

Echo Locations

Kirk Woolford
Lancaster University
Lancaster, United Kingdom

Carlos Guedes
Escola Superior de Música e das Artes do Espectáculo and INESC-Porto
Porto, Portugal

Hybrids

The objects in this section draw strength from unique combinations. When joined, these objects create timeless subjects rich with contrasts. They are at once nostalgic and innovative, natural and artificial, known and unknown. It is through these contrasts that we are drawn toward a deeper understanding of the familiar.

VR Comper ver. 5E: A Perspective Primer

Theo. A. Artz
Drexel University
Philadelphia, Pennsylvania USA

The Intimacy Machine

Jonathan Bachrach
Massachusetts Institute of Technology
Cambridge, Massachusetts USA

fragment.0140.02b ('Silhouette')
fragment.1207.0304.3 ('Glint')

Tim Borgmann
Wuppertal, Germany

Televisor 1910 German

Steve Gompf
Collins College
Tempe, Arizona USA

RealSnailMail [RSM]

boredomresearch
NCCA, Bournemouth University
Poole, United Kingdom

Associative Audio Design

Dennis de Bel
Piet Zwart Institute, Willem de Kooning Academy
Rotterdam University of Applied Science
Rotterdam, The Netherlands

TimeFrames: Digital Magic Lantern Slides

Wil Lindsay
Philadelphia, Pennsylvania USA

Neurosymphonic Self Reflection Divine Instruments of Technology

Kevin Mack
Los Angeles, California USA

Chorus

Paul Magee
London, England

Fold Loud

Joo Youn Paek
Eyebeam Resident
New York, New York USA

Digital Drawings

Ross Racine
New York, New York USA

Cross-Being: Dancer (The Spinning Screen)

Hyun Jean Lee
Ali Mazalek
Georgia Institute of Technology
Atlanta, Georgia USA

SOLARGRAFICA

Andreas Zingerle
Interface Culture - University of Art and Industrial Design
Linz, Austria

Rhythms

A breath, a heartbeat, a note from a song, have no significance without a reference to what comes before and after. These projects document time's patterns and add an element of play.

Skorpions: Kinetic Electronic Garments

Joanna Berzowska
Montreal, Quebec

Di Mainstone
London, England

Spacequatica

Ed Cookson
Edd Dawson-Taylor
Adam Hoyle
Lewis Sykes
Olly Venning
The Sancho Plan
London, United Kingdom

Graph Theory

Jason Freeman
Georgia Institute of Technology
Atlanta, Georgia USA

FF-

David Gladstein
San Francisco, California USA

KASHIKOKIMONO - Ver.J -

Takahiro Hayakawa
Kyushu University
Fukuoka, Japan

2006.7 (Elemental Series)

Kenneth Huff
Savannah College of Art and Design
Savannah, Georgia USA

Through The Time Tunnel

Miseong Lee
Tek-Jin Nam
Korea Advanced Institute of Science and Technology
Dajeon, South Korea

The Dreaming Pillow (L'Oreiller Rêveur)

Armella Leung
ATI, Art and Technology of Images-Université de Paris 8
Montreuil, France

Olivier Oswald
Montreuil, France

Prelude

Qian Li
Cleveland State University
Cleveland, Ohio USA

Phantasm

Takahiro Matsuo
Monoscape
Fukuoka, Japan

Smoke Water Fire

Mark Stock
Newton, Massachusetts USA

Wearable Forest: Feeling of Belonging to Nature

Ryoko Ueoka
Hiroki Kobayashi
The University of Tokyo
Tokyo, Japan

Traversal

As humans, our paths define our relationship with time. Our daily commutes, our leisure activities, the floor plans of our homes, form the circuits that bring us through a series of successive moments to our destinations. Whether on foot, in autos, or on bikes, where we are, or where we think we need to be, can transform our perception of our bodies and their surroundings.

Navigator

Jorn Ebner
Newcastle upon Tyne, United Kingdom

Moving Still

Santiago Caicedo
L'Ecole Nationale Supérieure des Arts Décoratifs
Paris, France

Forbidden City

Lily & Honglei
University of Massachusetts Dartmouth
North Dartmouth, Massachusetts USA

Meros: Remapping Experiences of Light in the Urban Daily Journey

Dylan Moore
Pratt Institute
Brooklyn, New York USA

Wonderland (2007)

Hye Yeon Nam
Georgia Institute of Technology
New York, New York USA

The Mischief of Created Things

Aaron Oldenburg
University of Maryland
Baltimore, Maryland USA

Ch'an Mind, Zen Mind Series: "Infinity" and "Purity"

Jing Zhou
Monmouth University
Long Branch, New Jersey USA

The Slow Art Gallery presents award-winning works from the 11th Japan Media Arts Festival

➡ Days & Hours

Monday, 11 August	1 - 6 pm
Tuesday, 12 August	Noon - 11 pm
Wednesday, 13 August	Noon - 11 pm
Thursday, 14 August	9 am - 6 pm
Friday, 15 August	9 am - 2 pm

➡ Location

Hall H

The Studio

Powerful workstations, versatile software, artists, designers, production experts, and you. Consult with the The Studio team of practitioners, artists in residence, and multimedia experts to realize your most imaginative concepts in 2D, 3D, 4D, and n-dimensional media. Then use its network of advanced input and output devices

If this is your first time in The Studio, our top-flight volunteers are available to help you through the process, and a whole series of 3D tutorials is planned throughout the week. If you are a "jaded professional," you can do some intense comparison and tech-testing or take this opportunity to try doing things differently or more experimentally than you might in a normal work environment. This is a studio, after all. Dive in. Spend the day, or the week, investigating the latest in 3D data capture, modeling, and rapid prototyping.

Technologies and Creative Areas

The Studio areas are grouped in broad categories determined by whether the technologies and activities are primarily about acquiring data, processing data, or outputting data. These teams help attendees explore specific technologies, and then work with them to move their data through a number of overlapping areas in order to critique, augment, revise, and complete complex projects.

Acquire

The Acquire team helps attendees capture, import, and create original datasets that can flow into any of The Studio's technology areas. They consult with attendees on issues and projects including photography, drawing, LASER scanning, video, sound recording, and other methods of digitizing real world phenomena. From here, attendee datasets move on to the Process and Produce areas.

Producer
Matthew Hamon

Team Members
Peter Randlette, Issara Willenskomer, Dave Nutty, Kyle Iskra, Terry VandenAcker, Sarah Kabot, Conor Peterson, Bob Gould

Process

The Process team helps attendees manipulate data and projects that use information of all kinds to generate dynamic content. The team provides opportunities to compute creatively and shape existing content in areas such as animation, 3D design, image manipulation, sound, open-source software, script-based 3D form generation, and video production. Processed data are prepared for any of a number of production and display technologies in the studio.

Producer
Byron Lahey

Team Members
Sky Asay, Robert Berg, Jessica Borchetta, John Brock, Gene Cooper, Claas Kuhnen, Patricia Clark, Gene Cooper, Gerry Derksen, Angela Eberhardt, Chris Evans, Dave Fleischer, Isa Gordon, Brock Ramirez, Carlo Sammarco, Makai Smith, Scott Starrett, and Scott Van Note

Produce

The Produce team helps attendees transform their acquired and processed data into tangible reality. The team consults on best practices and moves attendee art into production queues that may include 2D printing, lenticular printing, LASER cutting, CNC milling, and rapid prototyping. A limited number of slots are available or some of these processes, so stop by the Studio early to sign up.

Producer
Matthew Hollern

Team Members
Doug Bucci, Michael Gayk, Helena Pasquarella, Raleigh Souther, Courtney Starrett, Chris Williams, Richard Zarobell, Nate Penny, and Norwood Viviano

Artists In Residence Program

The Studio hosts six emerging and established resident artists from a variety of media traditions. In their own group workspace in the center of The Studio, these artists utilize the entire array of resources represented in the Studio. They blend their dynamic individual studio practices with emerging technologies as they interact with and provide inspiration to attendees.

Producer
Richard Nelipovich

The 2008 Artists in Residence
Ryan Buyssens, Dennis Dollens, Myra Mimlitsch-Gray, Jenny E. Sabin, Matt Shlian, and Peter Schmitt

SPECIAL ACKNOWLEDGEMENTS

The Studio thanks Adobe Systems, Inc., Intel Corporation, Penn State Altoona, and Kendall College of Art and Design for their generous support.

Attendees who want to get together with others who share their interests, goals, technologies, environments, or backgrounds are invited to attend a Birds of a Feather session. For a listing of the Birds of a Feather days, times, and locations see the SIGGRAPH 2008 Conference Locator.

Birds of A Feather

The 21st Anniversary CG Performance Show/ Sake Barrel Opening at SIGGRAPH 2008
Rica Okabe
ricaokabe@iii.u-tokyo.ac.jp

331 B.C. to 21st Century-Digital and Encaustics
Dona Geib
Djgeib@earthlink.net

3-D Printing for Art and Visualization
Michael Pique
Mp@Scripps.edu

ACCAD Alumni Gathering
Elaine Smith
Elaine@accad.osu.edu

ACM SIGGRAPH Cartographic Visualization Project
Theresa Marie Rhyne
tmrhyne@ncsu.edu

Academy of Motion Picture Arts and Sciences Educator's Forum
Barry Weiss
barry@imageworks.com

Ai Career Services
Jennifer Lasater
Jlasater@edmc.edu

Alumni Reception-Syracuse University
Susan Tooley
Sktooley@syr.edu

AnimationMentor.com
Molly Wolfsher
Molly@animationmentor.com

Animux-Free Software for Animators
Mark Puttnam
Markputtnam@yahoo.com

Biomedical Visualization
Drew Berry
Berry@wehi.edu.au

Blender Foundation: Community Meeting
Ton Roosendaal
Ton@blender.org

Blender Foundation: Open Movie/Game Presentations
Ton Roosendaal
Ton@blender.org

Bringing Visualization into the Primary and Secondary Classroom
James Martinez
jamesmartinez@wyeriverupperschool.org

California Arts, Media and Entertainment Educators
Kathleen Milnes
Kmilnes@entertainmentecon.org

CG-ARTS and EIZO SHUMBUN: Community Meeting
Ayumi Miyai
Miyai@cgarts.jp

COLLADA BOF
Elizabeth Riegel
Elizabeth@goldstandardgroup.com

Computer Graphics Pioneers Reception
Ingrid Carlbom
icarlbom@comcast.net

DGIA (Dynamic Information-Generated Interactive Art) – The Beauty of Information
Umyot Boonmarlart
Umyot@gmail.com

DIVERSE-flexible open source VE API
John Kelso
Kelso@nist.gov

Educating the Animator-Teaching Animation and Game Design in a University Setting
Adam Crespi
Acrespi@digipen.edu

Friends of the Art Institutes
Jennifer Lasater
Jlasater@edmc.edu

GITCT: CGI Development Opportunities with Korea
Byungwook Lee
m.son@entertainmentasia.com

IGDA Game Development Series
Jason Della Rocca
Jason@igda.org

IMERSA: Immersive Media Entertainment, Research, Science and Art
Ed Lantz
Ed@visualbandwidth.com

Inter-Society for the Electronic Arts (ISEA) Open Forum
Sue Gollifer
Sue.gollifer@googlemail.com

International Virtual Reality Contest
Akihiko Shirai
Shirai@mail.com

IPAX: Faculty Development Opportunities in Visual Effects and Animation
Sande Scoredos
Sande@imageworks.com

Khronos Handheld API BOF
Elizabeth Riegel
Elizabeth@goldstandardgroup.com

Legal and Business Issues Face by Emerging Companies in the Computer Graphics and Interactive Communities
Megan Sullivan
Msullivan@fr.com

Los Angeles ACM SIGGRAPH BOF
Xray Halperin
Xray@agentxray.com

Molecular Graphics
Michael Pique
Mp@Scripps.edu

Motion Graphics Creators
Gil Conoa
Gil@conoa.com

MUVE Moot: Multiuser Virtual Environments Meeting
Chris Thorne
Dragonmagi@gmail.com

Nordic TD Forum-CG artist network in the Nordic region
Irene Sparre
Irene@irenesparre.dk

Ohio SIGGRAPH Members
John Bowditch
Bowditch@ohio.edu

Open GL BOF
Elizabeth Riegel
Elizabeth@goldstandardgroup.com

Open Scene Graph BOF
Mike Weiblen
Mew@mew.cx

OpenSG BOF
Dirk Reiners
mail@dirkreiners.com

Purdue University Reunion
Jim Sprinkles
Jsprink@perdue.edu

Playing Nice: How to Teach Interdisciplinary Collaboration
Gitta Domik
Domik@uni-paderborn.de

Ringling College Alumni Reception
Terri Arnell
Tarnell@ringling.edu

Rochester Institute of Technology
James Ferwerda
Jaf @cis.rit.edu

SCS Simulation and Computer Graphics BOF
John Richardson
Richards@spawar.navy.mil

Sheridan College Alumni Reception
Deborah O'Malley
Deboarh.omalley@Sheridanc.on.ca

SIGGRAPH K-12 Primary/ Secondary Membership Drive
James Martinez
jamesmartinez@wyeriverupperschool.org

Spatial 3D Interfaces in Video Games
Joseph La Viola Jr.
jjl@cs.ucf.edu

Stony Brook University Center for Visual Computing Reunion
Stella Mannino
Stella@cs.sunysb.edu

Taipei ACM SIGGRAPH Reunion
Bing Yu Chen
Robin@ntu.edu.tw

Teaching Computer Graphics in Context in Computer Science
Steve Cunningham
Rsc@cs.csustan.edu

Teaching Math Through Game Development
Mitch Williams
Mitch.williams@3d-online.com

Temerity Pipeline Users Group
Jim Calllahan
Jim@temerity.us

Testing, CM and Computer Graphics
Anna Newman
Anewman@pdi.com

That's How We do Feature Animation in Europe!
Irene Sparre
Irene@irenesparre.dk

The Leonardo Education Forum (LEF)
Andrea Polli
Apolli@hunter.cuny.edu

The RenderMan Community of Japan
Bernard Edlington
Bernard@nexusinternational.jp

Tokyo ACM SIGGRAPH Chapter Party
Yukio Ando
Yukio.ando@gmail.com

UNC Chapel Hill Reunion
Herman Towles
Herman@cs.unc.edu

Undergraduate Computer Graphics Research Alliance
William Joel
Joelw@wcsu.edu

Use of CAD data through X3D
Alan Hudson
Giles@oz.net

Web3D Consortium Member Meeting
Anita Havele
Anita.havele@web3d.org

Women in Animation
Pamela Thompson
Pambo@q.com

Where do You Send Your High School Graduate?
James Martinez
jamesmartinez@wyeriverupperschool.org

X3D Humanoid Animation
Keith Victor
Kvictor@mediamachines.com

X3D Medical Working Group
Michael Aratow
Maratow@nogenesis.com

X3D Working Group of Web 3D
Don Brutzman
Brutzman@npa.navy.mil

Days & Hours

Monday, 11 August	8:30 am - 6 pm
Tuesday, 12 August	8 am - 6 pm
Wednesday, 13 August	8 am - 6 pm
Thursday, 14 August	8 am - 6 pm
Friday, 15 August	8 am - 4 pm

Location

Hall H (SIGGRAPH Village)

International Resources

Learn how the industry is evolving worldwide and collaborate with attendees from five continents. The International Center offers bilingual tours of SIGGRAPH 2008 programs, informal translation services, and space for meetings, talks, and demonstrations. Throughout the year, the International Resources program facilitates worldwide collaboration in the SIGGRAPH community, provides an English Review Service to help submitters whose first language is not English, and encourages participation in all conference venues, activities, and events.

International Resources Committee

International Resources Co-Chair
Kirsten Cater
University of Bristol
Region: Europe
Language: English

International Resources Co-Chair
Scott Lang
Bergen County Academies
Region: North America
Language: English

ACM SIGGRAPH Village Manager
Alexandre Cantini Rezende
Pontifícia Universidade Católica do Rio de Janeiro
Universidade Federal do Rio de Janeiro
Languages: Portuguese, English

2008 International Resources Center Booth Manager
Alexis Casas
Weta Digital
Languages: English, French

2008 English Review Service Coordinator
Matt Adcock
CSIRO ICT Centre
Region: Australasia/Oceania
Language: English

2008 Translation Tours Coordinator
Sandro Alberti
Universidad de Guadalajara
Region: North & Central America
Languages: Spanish, Italian, English

Miho Aoki
Arctic Region Supercomputing Center,
University of Alaska Fairbanks
Region: Asia/Far East
Languages: Japanese, English

Dongho Kim
Soongsil University
Region: Asia/Far East
Languages: Korean, English

Wobbe Koning
Montclair State University
Region: Europe
Languages: Dutch, German, English

Patrick Marais
University of Cape Town
Region: Africa
Languages: English, Afrikaans

Marilenis Olivera
Stanford University
Region: South America
Languages: Spanish, English

International Resources Events

International Center, Hall H (SIGGRAPH Village)

Informative international sessions on the current state of computer graphics around the world, organized by representatives of ACM SIGGRAPH and affiliated societies. See the schedule near the International Center Entrance for updates.

Overview of SIGGRAPH 2008 (with Japanese interpreter)

Monday, 11 August, 10 am - noon

Members of the SIGGRAPH 2008 Committee present an overview of the conference and highlights of their programs.

Miho Aoki
ffma2@uaf.edu

CG in Latino Countries

Monday, 11 August, 4 - 5 pm

A brief overview of the state of CG in Latino countries. The session will end with a celebratory piñata.

Marilenis Olivera
Marilenis@gmail.com

Inter-Society for the Electronic Arts (ISEA) Open Forum

Tuesday, 12 August, 11:30 am -12:30 pm

ISEA is an international non-profit organization fostering interdisciplinary academic discourse and exchange among culturally diverse groups and individuals working with art, science, and emerging technologies. This discussion includes information about the organization, the upcoming ISEA Symposium to be held in Belfast Northern Ireland in 2009, and plans for the future of ISEA. All interested members of the electronic arts community are welcome to attend, to learn about future symposia and share ideas for potential organizational collaborations.

Sue Gollifer
sue.gollifer@googlemail.com

ACM SIGGRAPH Digital Art Committee Committee Meeting

Tuesday, 12 August, 3 - 4 pm

The Digital Art Committee of ACM SIGGRAPH invites artists, potential arts collaborators, curators, critics, and others interested in the arts to a discussion of ACM SIGGRAPH's new online community for digital artists. We are launching both a social networking site and a place for reviewed articles, with curated on-line exhibitions. We are encouraging feedback and ideas from YOU that can be implemented this year. Let your voice be heard!!

Jacki Morie
morie@siggraph.org

DCAJ and 3C Consortium: Animation by Young Japanese Creators

Wednesday, 13 August, 10 - 11 am

DCAJ presents the winning animations from their Digital Creator Competition 2007. And 3D Consortium introduces the case for Seiji Morishita who won the Silver Wing Award at DCC 2004 and established a production and design company, Tange Films, in 2006 with his partner.

Toshio Suzuki
Suzuki@dcaj.or.jp

DCAJ: Industrial CG Applications in Japan

Wednesday, 13 August, 11 am - noon

DCAJ presents a Japanese CG production company whose entertainment animation work has been selected for screening at SIGGRAPH 2008. Their highly developed CG technique is being utilized for various industrial purposes. Two additional examples of highly advanced industrial utilization of CG technology will also be featured.

Toshio Suzuki
Suzuki@dcaj.or.jp

ACM SIGGRAPH Professional and Student Chapters Start-Up Meeting

Wednesday, 13 August, 12:30 - 1:30 pm

The Professional and Student Chapters of ACM SIGGRAPH span the globe. Within their local areas, chapters continue the work of ACM SIGGRAPH on a year-round basis via their meetings and other activities. Each chapter consists of individuals involved in education, research and development, the arts, industry, and entertainment who are interested in the advancement of computer graphics and interactive techniques, related technologies, and their applications. Chapter members gather throughout the year at meetings, site visits, conferences, video screenings, art shows, and special events.

This session explains how to start and run a successful ACM SIGGRAPH Professional or Student Chapter. Topics regarding the process are outlined in detail by members of the Chapters Committee, and the session concludes with a Q&A session.

Scott Lang
scott_lang@siggraph.org

Art & Economics of Animation in Latin America

Wednesday, 13 August

3 - 4:15 pm Presentation
4:15 - 5 pm Latin Snacks

Presentations by Latin America chapters and producers, including short demo. The goal of this talk is to shed light on the quality of animation that can – and is - being produced in Latin America. The types of service that clients can expect, as well as the costs and time involved in producing animation in Latin America, are also discussed.

Alejandro Perelman
alejandro.perelman@avsistemas.com

SpaceTime Student Exhibition Opening

Wednesday, 13 August, 5 - 6 pm

For the first time ever, the ACM SIGGRAPH SpaceTime Student Exhibition is hosting both a physical and a virtual opening at SIGGRAPH 2008. The ACM SIGGRAPH Education Committee has partnered with the Otis College of Art and Design to extend the SpaceTime Gallery into the virtual world via Second Life on Otis Island. The Second Life gallery will include virtual versions of both the animation and print work from the physical gallery.

Rick Barry
rick_barry@siggraph.org

ACM SIGGRAPH Chapters Business Meeting

Thursday, 14 August, 10 - 11:30 am

The annual Business Meeting for the ACM SIGGRAPH Chapters.

Scott Lang
scott_lang@siggraph.org

SIGGRAPH Asia 2009 Get Involved: First Session

Thursday, 14 August, 12:30 - 1:30 pm

Would you like to make a difference? The opportunity awaits you at SIGGRAPH Asia 2009 in Yokohama, Japan. Come speak to the program chairs, ask questions, and say "yes" to an exciting and fulfilling experience. Don't miss it!

SIGGRAPH Asia 2009 Get Involved: Second Session

Thursday, 14 August, 3 - 4 pm

Cecilia Ow
Cecilia_ow@siggraph.org

➡ Days & Hours

Tuesday, 12 August	9:30 am - 6 pm
Wednesday, 13 August	9:30 am - 6 pm
Thursday, 14 August	9:30 am - 3:30 pm

➡ Location

South Hall

Exhibition

Get up-close and hands-on with the newest hardware systems, software tools, and creative services from hundreds of companies. Explore the products, systems, techniques, ideas, and inspiration that are creating the next three generations of computer graphics and interactive techniques. SIGGRAPH 2008 hosts the year's largest, most comprehensive exhibition of products and services for the computer graphics and interactive techniques marketplace, featuring the industry's established leaders and emerging challengers.

Products & Services on Display

2D Graphics
3D Graphics
3D Modeling
3D Rapid Prototyping
Aerospace and Automotive Applications
Animation
Architecture Applications
Artificial Intelligence
Authoring Software
Broadcast Design Software
Business and Financial Graphics
CAD/CAM/CAE/CIM
Commercial Game Engines/Equipment
Computer Video Interfacing
Conferences and Exhibition
Consulting
Contract Graphics/Programming
Data Analysis
Desktop Publishing
Desktop Video Production Software
Digital Cameras
Digital Imaging
Digital Video Hardware
Digitizing Cameras
DVD Authoring Tools
Education/Training
Electronic Publishing
Encoders/Decoders
Engineering Applications
Furniture
Geographic Information Systems
Graphic Design Systems
Graphics Accelerator Boards
Graphics Standards Software
GroupWare
Haptic Input Devices
HDTV
Head-Mounted Displays
High-Performance Graphics Processors
High-Resolution Technologies
Image-Based Modeling
Image Management
Industrial Design
Information Visualization
Input Devices
Interface Tools
Mapping and Cartography
Medical Imaging Software
Mobile Computing
Monitors and Displays
Motion Capture
Multimedia Tools and Applications
Networking
OEM Components
Paint Systems
Printers and Plotters
Projectors
Publications
RAID Systems and Storage
Rendering and Modeling
Robotics
Scan Converters
Scanners
Scientific Applications
Scientific Visualization
Simulation
Storage Devices; Tape/Disk
Streaming Technology
Systems integrators
Terminals, Monitors, and Displays
Video Effects Equipment
Video Encoding and Compression
Video Servers
Visual Effects Software
VR Software
Web 3D
Web Graphics
Workstation

IMPORTANT NOTICE

Registered attendees under the age of 16 must be accompanied by an adult at all times throughout the Los Angeles Convention Center, except for the Exhibition, where children under 16 are not permitted. Age verificationis required for the Exhibition.

➡ Space Reservation

To purchase exhibition space for SIGGRAPH 2009, call or write:

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Prize Drawings

iZ3D LLC
Booth 158

Visit iZ3D LLC and enter to win a 22-inch iZ3D computer LCD monitor. The iZ3D 22-inch LCD is an advanced video monitor capable of displaying impressive 3D images with passive polarized glasses.

Activision®
Booth 217

Visit Activision® and drop your business card at Booth 217 to register to win a Wii Console & Game Bundle.

Drawings will be held:

Tuesday, 12 August: 11 am, 2 pm, and 5 pm

Wednesday, 13 August: noon and 4 pm

Thursday, 14 August: 11 am

New Product Showcase

South Lobby

Special displays of significant innovations featured in the SIGGRAPH 2008 Exhibition. This is your opportunity to get acquainted with some of the latest, most significant products and services in the industry. Then visit the Exhibition booths that feature those products and services, for complete details on how they are changing computer graphics and interactive techniques.

Bell Computer
Booth 1123

4U Blade Server
Bell Computer's 4U, 40 cores, blade server with Intel boards and quad core CPUs. Minimal maintenance and low power consumption: only 1.3 amp per blade.

Creaform
Booth 453

VIUscan™
Introducing the VIUscan™, the only truly portable 3D color scanner from the Handyscan3D™ line of self-positioning handheld laser scanners by Creaform.

Advertiser Index

Days & Hours

Tuesday, 12 August	9:30 am - 6 pm
Wednesday, 13 August	9:30 am - 6 pm
Thursday, 14 August	9:30 am - 3:30 pm

Location

Hall G, Room 1 & 2

Exhibitor Tech Talks & Sessions

Comprehensive summaries of the latest technologies in computer graphics and interactive techniques. SIGGRAPH 2008 exhibitors demonstrate software, hardware, and systems; answer questions; and host one-on-one conversations about how their applications improve professional and technical performance.

Exhibitor Tech Talks

iPi Soft

iPi Desktop Motion Capture: Mocap for the Masses

Tuesday, 12 August, 9:45 - 11:30 am
Hall G, Room 1

iPi Soft presents demonstrations of iPi Desktop Motion Capture (aka Shoot3D), an entry-level motion capture technology that works with just one digital camera. Topics include the motion capture process, clean-up, and the animation export process. Demos include how to create a home-made machinima using iPi Mocap and your typical favorite computer game. A web camera or inexpensive digital camera can be used for shooting input video.

Michael Nikonov
mini@shoot3d.biz

Autodesk, Inc.

Autodesk® FBX®: An Introduction

Tuesday, 12 August, 1 - 2:30 pm
Hall G, Room 1

This technical overview of FBX delves into the thrilling new features in today's FBX. See how FBX can greatly simplify your workflow with its versatility and ease of use, and understand how, with the new customization features and new openness of FBX, integrating and maintaining FBX within your applications can be done so easily and efficiently. This session is intended for developers, technical directors, managers, and enthusiasts in the fields of content-creation tools, game engines and any other applications that rely on the most widely used 3D format in the industry, FBX.

Luc Vo Van
Luc.vovan@autodesk.com

Intel Corporation

Why 3D Application Development is Driving Graphics-Industry Convergence

Tuesday, 12 August, 3:30 - 5:30 pm
Hall G, Room 1

The 3D graphics industry has been maturing in several key high-performance areas including the CAx industry, the entertainment industry, and the exploding video and PC games industry. Intel and partners show how sharing an open-3D format and 3D tools is driving convergence between these developers to build tools and applications that can be repurposed by other industries that need content.

Rita Turkowski
Rita.B.Turkowski@intel.com

Craft Animations

SpeedAnimation™: A Production for Extremely Fast Animation That Also Increases the Quality of the Animation!

Wednesday, 13 August, 9:45 - 11:30 am
Hall G, Room 1

The first step to dramatically increase productions speed is to abandon the laborious manual key-framing approach and build an entirely new animation system. To increase the quality of animation, the system must be based on procedural animation. And the author should be able to interact with the animation while it is being generated. The result is a system in which the animator "drives" the animation using something as simple as a regular game controller (such as a joystick or gamepad), and the system "records" the animation, generating key frames automatically. Thirdly, the system needs to be modular, combining separate elements together in a single animation instead of recording everything separately. The Craft Animations primary tool suite, Craft Director Tools, covers wheel- and track-based vehicles, aerial vehicles, camera-control tools, and help utilities.

Luigi Tramontana
Luigi.tramontana@craftanimations.com

Vancouver Film School

Telling the Whole Story: A VFS Animation Case Study

Wednesday, 13 August, 1 - 2:30 pm
Hall G, Room 1

Join Greg Berridge, senior instructor in Vancouver Film School's Digital Character Animation program, for a character-animation case study. He reviews production of "The Switch," a CG animated film by VFS student Zack Mathew that has now been seen by more than 1.4 million viewers on YouTube. See how this massively popular animation was created, starting with concept and development, and moving through character design, modeling, texturing, rigging, animations, and effect animation. VFS alumni and industry professionals also discuss animation and visual effects, potential career paths for animators, and opportunities in Vancouver's animation industry.

Greg Berridge
gregb@vfs.com

Web3D Consortium

X3D: The Real-Time Solution for the Web

Wednesday, 13 August, 3:30 - 5:30 pm
Hall G, Room 1

The Web3D Consortium celebrates its 10th anniversary with its best-ever Web3D Tech Talk, which showcases Web3D technologies such as X3D and VRML that make web graphics easy and fun to deploy. X3D innovators demonstrate their latest real-world 3D applications and content, and show how you can use X3D for your 3D graphic needs. Use of X3D is growing, with content and applications in various sectors and across all hardware platforms. Join a large, innovative community of content and application developers who see this standard as the future for deployment of real-time 3D graphics applications.

Anita Havele
anita.havele@web3d.org

RapidMind, Inc.

Parallel Programming for Multi- and Many-Core Processors With RapidMind

Thursday, 14 August, 9:45 - 11:30 am
Hall G, Room 1

This presentation demonstrates how developers can express computations using the RapidMind API without changing their C++ compilers, IDEs, debuggers, and build systems. Stefanus Du Toit, Chief Architect at RapidMind, provides a complete introduction to RapidMind and helps attendees understand how RapidMind works and can be used, and what performance benefits can be gained by it. C++ experience is recommended but not required for this presentation.

Stefanus DuToit
stefanus.dutoit@rapidmind.com

AMD Corporation

GPU-Accelerated Video Encoding: State of the Art

Thursday, 14 August, 1 - 2:30 pm
Hall G, Room 1

By leveraging the highly parallel nature of the GPU to address the compute-intensive nature of video compression, substantial gains can be realized in the the productivity of video-centric workflows. Learn about AMD's advances in accelerating video encoding in workflows, such as non-linear editing, client approvals preparation, streaming transcode, etc.

Alexis Mather
Alexis.mather@amd.com

Hewlett Packard

Revolutionizing Color Management: What You Dream is What You Get

Tuesday, 12 August, 1 - 2:30 pm
Hall G, Room 2

Learn how to make costly color checks, redesigns, and multiple proofs a thing of the past. HP and DreamWorks Animation show how to tap the newest breakthrough in color-critical display technology to get true color fidelity the first time and every time. Engineers of the new HP DreamColor display demonstrate this highly affordable display technology that enables a range of more than one billion colors in a 30-bit LCD display with blacker blacks, programmable white point, pre-sets for major industry specifications, and customizations for target color gamuts.

Larry Mahoney
Larry.mahoney@hp.com

RapidMind, Inc.

A Unified Programming Model for Multi-Core CPUs and Many-Core Accelerators

Tuesday, 12 August, 3:30 - 5:30 pm
Hall G, Room 2

Join Michael McCool as he explores the benefits of the SPMD stream-parallel processing model and demonstrates how developers can express computations using the RapidMind Multi-Core Development Platform API in their C++ compilers, IDEs, debuggers, and build systems. McCool explores how RapidMind's embedded interface approach also makes it possible to use the modularity of C++ to structure computations and eliminate the runtime expense of this modularity. In addition to specific algorithmic examples, he also demonstrates how to use the platform to turn interpreters into compilers, enabling rapid development of domain-specific languages.

Mark Sangster
mark.sangster@rapidmind.com

Lenovo

The Importance of Color in Mobile Workstations

Wednesday, 13 August, 10:30 - 11:15 am
Hall G, Room 2

With the vast increases in mobile graphics, CPU, memory, and storage capabilities, truly effective mobile workstations are becoming reality for an increasing number of traditional desk-bound workstation users. Like the importance of having all components of a high-performance F1 race car operating in harmony, all components of today's mobile workstations must be matched in a complete and balanced tool. While mobile displays boast ever-increasing resolutions, the quality of the display's color capabilities, brightness, and (most important) correctness is just as important to the overall effectiveness as the other workstation components. This Tech Talk focuses on the quality of mobile displays and how companies like Lenovo are working with customers, suppliers, and technical development teams to deliver innovative capabilities to the digital content-creation community.

Wes Williams
WW Segment Manager, ThinkPad Mobile Workstations

Image Metrics

Getting Real With Emily: Achieving Photo-Real Facial Animation With Image Metrics' Technology

Wednesday, 13 August, 1 - 2:30 pm
Hall G, Room 2

You have not seen photo-real facial animation until you've seen Emily, a lifelike CG character born from the collaboration between Image Metrics and the University of Southern California.

For years, Image Metrics' easy-to-use technology has helped studios create superior facial animation on some of the biggest films and games, including "Mummy 3" and the Grand Theft Auto series. That same technology has been combined with USC's 3D scanning solution to create a character so lifelike you will think she's real.

Including a great line-up of guest speakers, such as Paul Debevec from USC's Institute for Creative Technologies, this session provides a behind-the-scenes look at how Image Metrics' markerless and makeup-free technology is taking facial animation in games and film to the next level.

Sarah Whitmore
Sarah.whitmore@image-metrics.com

Creaform

Handyscan 3D: Real-Time, True Color Reconstruction of Textured 3D Models

Wednesday, 13 August, 3:30 - 5:30 pm
Hall G, Room 2

3D scanning has long been recognized as an effective way to build accurate models of real 3D objects in a cost- and time-effective way. However, the texture and color dimensions were often left out of the shape acquisition process, or had to be added as post processing operations. The newest scanner for the Handyscan 3D™ line-up from Creaform now allows a precise, true color, hi-resolution and real-time model reconstruction of practically any 3d objects. This session includes a product presentation, a live demonstration and discussions about potential uses and applications. It is intended for anybody interested in 3d scanning or transferring real-life objects in the virtual world.

Marco St-Pierre
mstpierre@creaform3d.com

Exhibitor Tech Sessions

NVIDIA Corporation

Next-Generation Hardware Rendering of Displaced Subdivision Surfaces

Wednesday, 13 August, 9 - 10 am
Room 405

An overview of the next-generation tessellation pipeline and its motivation. The focus is on one of the primary applications: rendering of displaced subdivision surfaces, which dramatically increases the realism of animated characters. The talk also shows how to adapt production pipelines to create compelling content that takes advantage of this innovative rendering model.

Ignacio Castaño

NVIDIA Corporation

Real-Time Rendering of Realistic Hair

Wednesday, 13 August, 10:15 - 10:45 am
Room 405

Until recently, simulating and rendering realistic hair with tens of thousands of strands was prohibitively expensive for real-time use. This session reviews how to render realistic hair with high geometric complexity in real time on the GPU. Topics incude efficient creation and rendering of large amounts of geometry for hair (essential for creating realistic hair, especially when the hair is moving), shading, self-shadowing, level of detail, and important performance optimizations. The talk also shows how next-generation hardware tessellation can make creating and rendering hair much more intuitive and efficient.

Sarah Tariq

NVIDIA Corporation

Adaptive Terrain Tessellation on the GPU

Wednesday, 13 August, 10:45 - 11:15 am
Room 405

Next-generation GPUs implement highly-programmable tessellation entirely on the GPU. This talk explains how tessellation can be applied to terrain rendering with displacement mapping. This tessellation scheme is adaptive, with the polygon LOD varying as a function of terrain roughness and with view-dependent silhouette detection.

Iain Cantlay

NVIDIA Corporation

Getting Physical: Solutions and Case Studies for Creating Scalable PhysX Content

Wednesday, 13 August, 11:30 am - 12:30 pm
Room 405

Using physical simulation in applications takes their level of immersion to new heights. NVIDIA's PhysX enables developers to add an unprecedented number of physical objects into scenes while maintaining high performance. This talk reviews the latest PhysX features and tools, and presents real case studies that highlight common challenges and solutions.

Monier Maher

NVIDIA Corporation

A New Generation of Performance Analysis and Shader Authoring Tools

Wednesday, 13 August, 2 - 3 pm
Room 405

This talk covers the latest releases of NVIDIA's popular PerfKit and FX Composer software products, as well as the brand-new NVIDIA Shader Debugger. Learn how to extract maximum GPU performance using PerfHUD 6.0 (for real-time debugging and profiling, with many powerful new features), GLExpert (for OpenGL debugging), and PerfSDK (an API for accessing GPU performance counters). See how FX Composer 2.5 and the Shader Debugger can make shader authoring, profiling, and debugging easy for programmers, artists, and technical directors. Discover new features such as a source-level shader debugging for CG and HLSL10 shaders, Direct3D 10 support (including geometry shaders, stream out, and texture arrays), visual models and styles, particle systems, a revamped user interface, and much more.

Jeffrey Kiel
Christopher Maughan

NVIDIA Corporation

CUDA: The Democratization of Parallel Computing

Wednesday, 13 August, 3:45 - 4:45 pm
Room 405

Massively parallel computing, once the domain of supercomputers, is now widely accessible in the form of millions of CUDA-enabled GPUs. These GPUs are fully programmable, support tens of thousands of concurrent threads, and have accelerated computations in a variety of disciplines by up to two orders of magnitude.

This session provides an overview of the newest GPU architecture, the CUDA programming model, and the latest development tools. CUDA enables efficient implementation of parallel algorithms by providing a small set of readily understood extensions to the C/C++ languages, eliminating the need to learn a new language. Development is facilitated by insightful profiling and debugging tools. Since the GPU is the only widely available commodity, "manycore" chip, we explore it as a research platform for parallel programming and architecture.

Paulius Micikevicius

NVIDIA Corporation

Interactive Ray Tracing With CUDA

Wednesday, 13 August, 5 - 6 pm
Room 405

Ray tracing has long been associated with high-quality graphics, but it has not been suitable for interactive use. With CUDA and an NVIDIA GPU, it is now possible to ray trace reflections from curved surfaces, refractions, and accurate shadows. By combining these effects with rasterization to efficiently compute viewing ray intersections, accurate inter-reflections and other effects can be achieved at high resolutions and frame rates.

David Luebke
Steven Parker

Other Exhibitor Meeting Rooms

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DreamWorks Animation - Room 510

Maxon Computer Inc. - Room 501 B

Renderosity - Room 514

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Exhibitor Map

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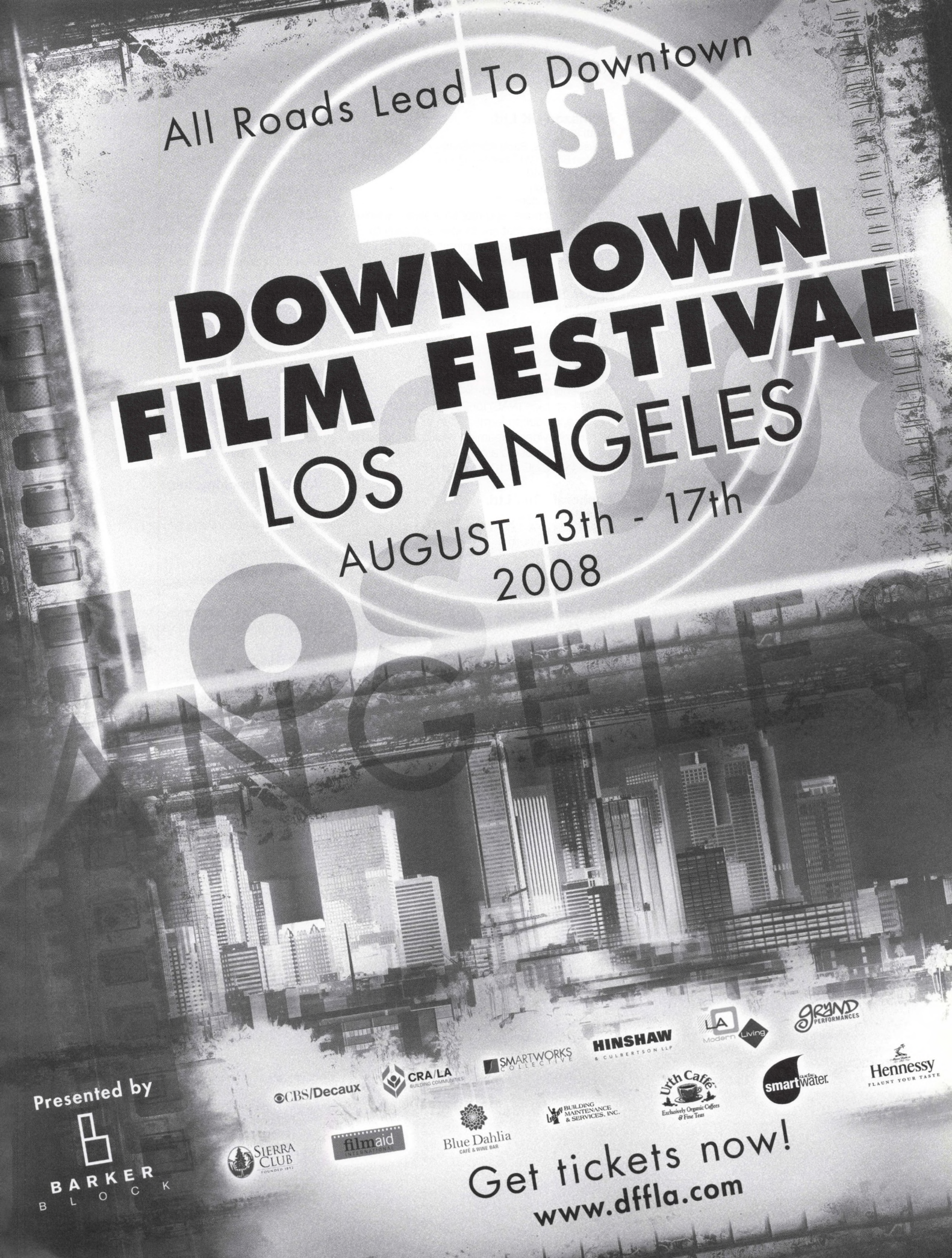
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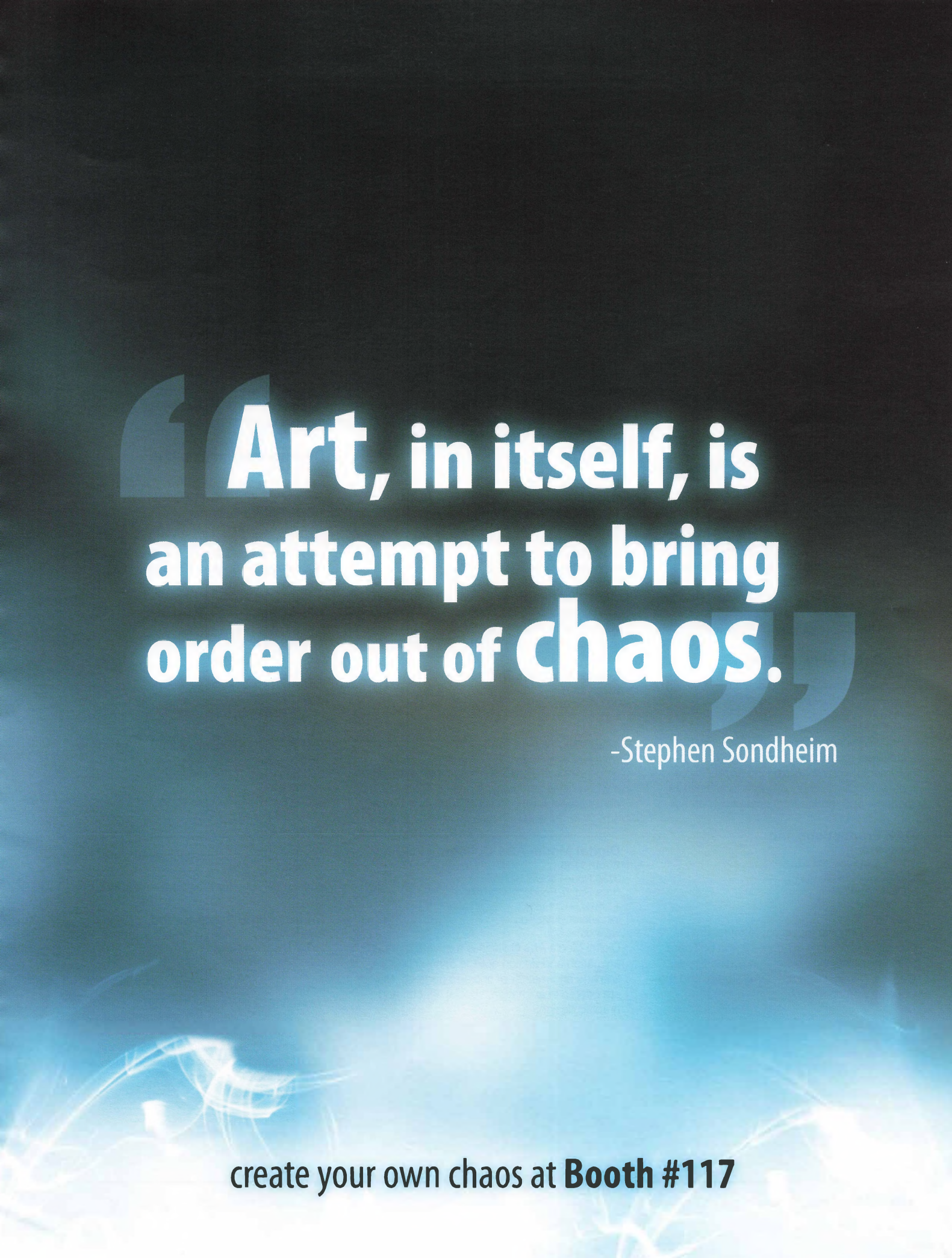
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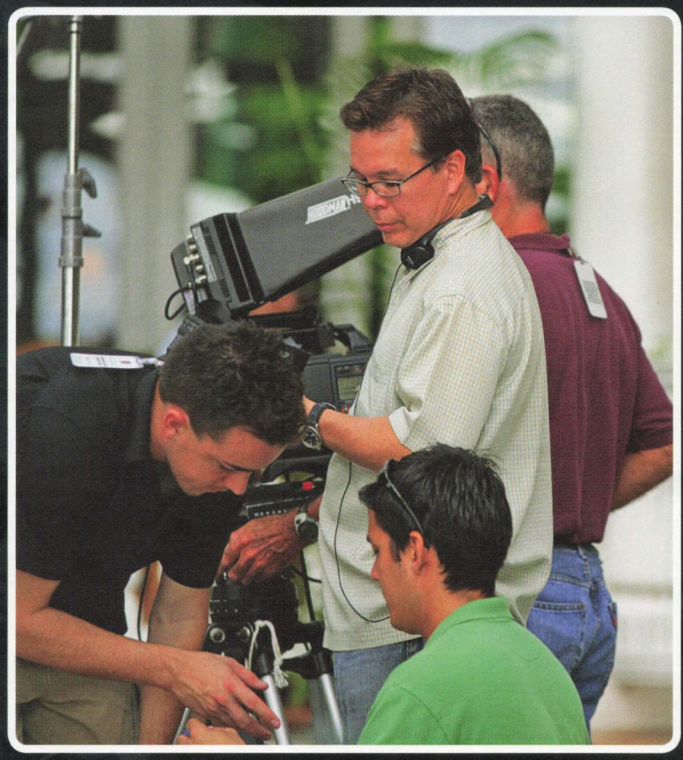

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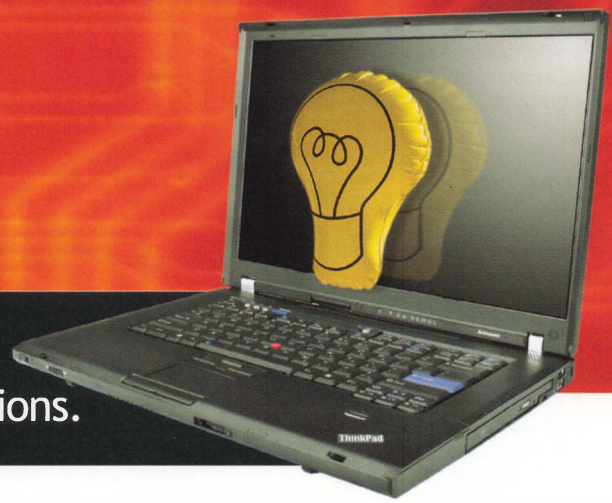

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711 Pixologic, Inc.
451 Renderosity
1366 Robert McNeel & Associates
110 School of Film, TV and Multimedia Korean National
719 Smith Micro Software, Inc.
647 Softimage
1407 Solid Modeling Solutions
701 Sony Pictures Imageworks Inc.
930 Studica, Inc.
1059 TechViz
238 Tippett Studio
1066 Triple Squid Software Design
1367 T-Splines, Inc.
1007 TurboSquid, Inc.
154 The United States Mint
148 VisTrails Inc.
139 Web3D Consortium
1015 Wolfram Research, Inc.
1100 Zygote Media Group, Inc.

3D Modeling

136 [TC]2
120 3Dconnexion, a Logitech company
1114 3dMD, a 3Q Company
1031 Academic Superstore LP
217 Activision
817 Addison-Wesley Professional
919 auto.des.sys, Inc.
501 Autodesk, Inc.
1029 Axceleon Inc.
1309 Blue Sky Studios, Inc.
837 cebas Computer GmbH
1011 CGAL - The Computational Geometry Algorithms Library
1037 Cosmic Blobs - Dassault Systemes S.A.
453 Creaform 3D
910 DAZ Productions, Inc.
1161 Digimax Inc.
966 DigiPen Institute of Technology
1235 Digital-Tutors
116 Donya Labs
1129 e-on software, inc.
967 Fraunhofer HHI
954 Future Publishing Limited
739 Hewlett Packard Company
1422 Immersion Corporation
962 Immersive Media Corp.
1001 IntegrityWare, Inc.
734 JourneyEd.com
1160 LightWork Design Ltd.
335 Lucasfilm Ltd.
529 MAXON Computer Inc.
554, 655 NVIDIA Corporation
119 Pantomat
958 The Pixel Farm
711 Pixologic, Inc.
1247 Point Grey Research Inc.
961 Purdue University, Department of Computer Graphics Technology
761 RapidMind Inc.
451 Renderosity
1366 Robert McNeel & Associates
110 School of Film, TV and Multimedia Korean National
138 Shapeways
719 Smith Micro Software, Inc.
647 Softimage
1407 Solid Modeling Solutions
701 Sony Pictures Imageworks Inc.
1025 SpheronVR AG
930 Studica, Inc.
238 Tippett Studio
1066 Triple Squid Software Design
1367 T-Splines, Inc.
1007 TurboSquid, Inc.
154 The United States Mint
148 VisTrails Inc.
1015 Wolfram Research, Inc.
1100 Zygote Media Group, Inc.

3D Rapid Prototyping

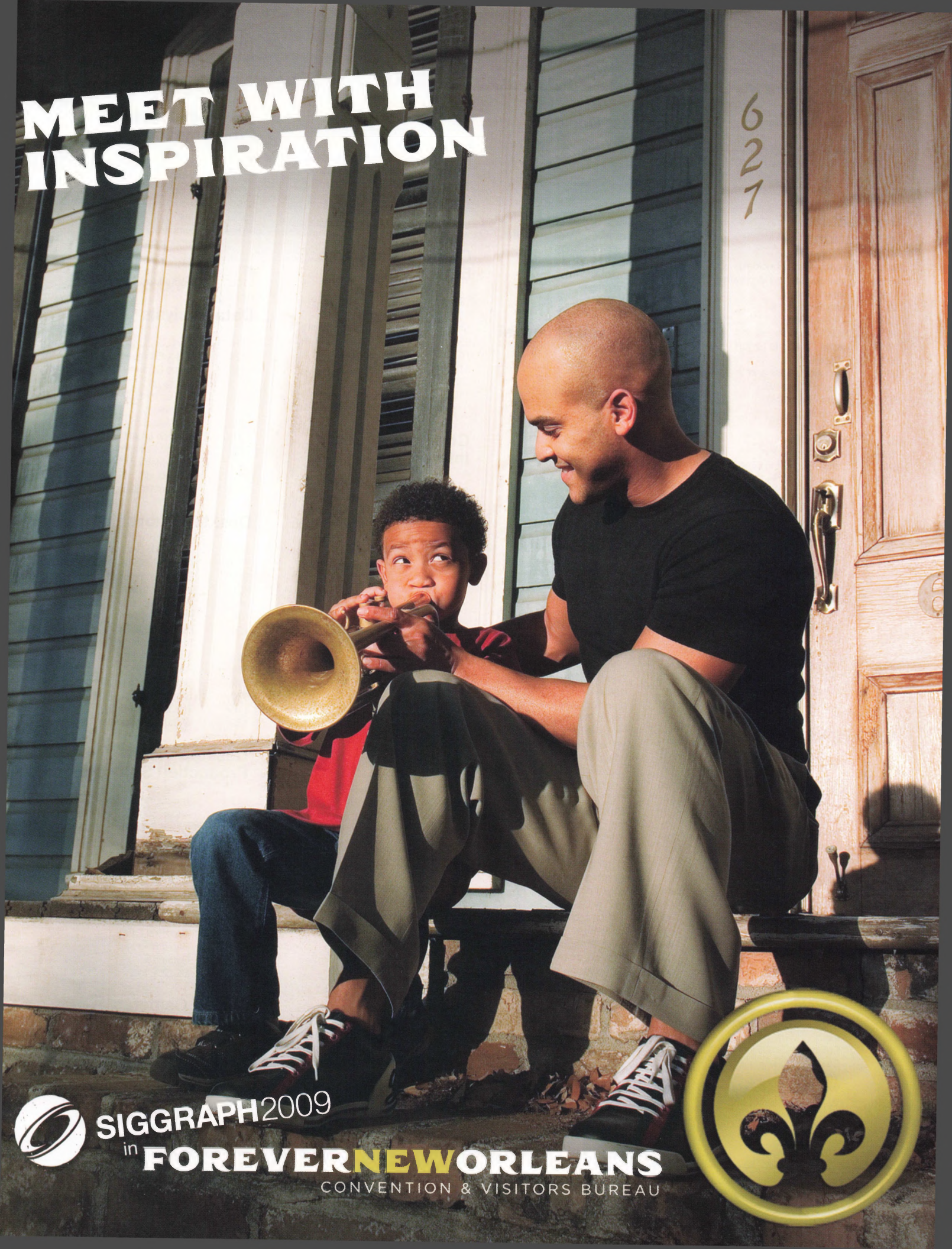
1114 3dMD, a 3Q Company
1217 3DVIA, Dassault Systèmes
347 Aguru Images, Inc.
1156 Apace Systems Corporation
453 Creaform 3D
900 Dimension 3D Printing
954 Future Publishing Limited
932 HPC Systems, Inc.
147 IBM Corporation
1422 Immersion Corporation
211 InterSense
733 NaturalPoint Inc.
1416 Objet Geometries Ltd.
1317 Pixellexis Systems & Technologies Inc.
1363 Polhemus
110 School of Film, TV and Multimedia Korean National
138 Shapeways
154 The United States Mint
913 Z Corporation

Aerospace and Automotive Applications

120 3Dconnexion, a Logitech company
1031 Academic Superstore LP
1112 Aspera, Inc.
919 auto.des.sys, Inc.
1029 Axceleon Inc.
1355 Electrosonic Systems Inc.
954 Future Publishing Limited
962 Immersive Media Corp.
127 Intelligraphics Inc.
1160 LightWork Design Ltd.
1137 Motion Analysis Corporation
937 Next Limit Technologies
827 Okino Computer Graphics, Inc.
833 PipelineFX, LLC
1366 Robert McNeel & Associates
647 Softimage
1367 T-Splines, Inc.

Animation

120 3Dconnexion, a Logitech company
1031 Academic Superstore LP
217 Activision
817 Addison-Wesley Professional
347 Aguru Images, Inc.
773 Animazoo
1156 Apace Systems Corporation
919 auto.des.sys, Inc.
501 Autodesk, Inc.
727 Avatar Reality, Inc.
1029 Axceleon Inc.
1123 Bell Computer
1309 Blue Sky Studios, Inc.
546 BOXX Technologies, Inc.
837 cebas Computer GmbH
1337 Chaos Group
934 Contour Design, Inc.
1037 Cosmic Blobs - Dassault Systemes S.A.
1033 Craft Animations and Entertainment AB
910 DAZ Productions, Inc.
1161 Digimax Inc.
966 DigiPen Institute of Technology
1536 Digital Anarchy
1235 Digital-Tutors
116 Donya Labs
1129 e-on software, inc.
801 eyeon Software Inc.
967 Fraunhofer HHI
954 Future Publishing Limited
739 Hewlett Packard Company
1229 Image Metrics
962 Immersive Media Corp.
1001 IntegrityWare, Inc.
1419 iPi Soft
335 Lucasfilm Ltd.
529 MAXON Computer Inc.
1137 Motion Analysis Corporation
755 NaturalMotion Ltd.
937 Next Limit Technologies
827 Okino Computer Graphics, Inc.
119 Pantomat
833 PipelineFX, LLC
947 Pixar Animation Studios
958 The Pixel Farm
711 Pixologic, Inc.
961 Purdue University, Department of Computer Graphics Technology
761 RapidMind Inc.
451 Renderosity
110 School of Film, TV and Multimedia Korean National
719 Smith Micro Software, Inc.
647 Softimage
1407 Solid Modeling Solutions
701 Sony Pictures Imageworks Inc.
930 Studica, Inc.
238 Tippett Studio
1005 Toon Boom Animation, Inc.
1367 T-Splines, Inc.
1007 TurboSquid, Inc.


MEET WITH
INSPIRATION
621
SIGGRAPH2009
in FOREVERNEWORLEANS
CONVENTION & VISITORS BUREAU

1047 Walt Disney Animation Studios
139 Web3D Consortium
1015 Wolfram Research, Inc.
767 Xsens Technologies B.V.
1100 Zygote Media Group, Inc.

Architecture Applications

904 Andersson Technologies LLC
1156 Apace Systems Corporation
1112 Aspera, Inc.
919 auto.des.sys, Inc.
1029 Axceleon Inc.
546 BOXX Technologies, Inc.
837 cebas Computer GmbH
1337 Chaos Group
1033 Craft Animations and Entertainment AB
966 DigiPen Institute of Technology
116 Donya Labs
461 EON Reality, Inc.
1129 e-on software, inc.
954 Future Publishing Limited
962 Immersive Media Corp.
1001 IntegrityWare, Inc.
1223 Isilon Systems, Inc.
734 JourneyEd.com
937 Next Limit Technologies
827 Okino Computer Graphics, Inc.
833 PipelineFX, LLC
958 The Pixel Farm
451 Renderosity
1366 Robert McNeel & Associates
647 Softimage
1025 SpheronVR AG
930 Studica, Inc.
1437 Trinity Animation Inc.
1066 Triple Squid Software Design
139 Web3D Consortium
1100 Zygote Media Group, Inc.

Artificial Intelligence

217 Activision
1156 Apace Systems Corporation
966 DigiPen Institute of Technology
335 Lucasfilm Ltd.
755 NaturalMotion Ltd.
761 RapidMind Inc.

Authoring Software

1154 The3DShop.com
1217 3DVIA, Dassault Systèmes
1031 Academic Superstore LP
546 BOXX Technologies, Inc.
461 EON Reality, Inc.
124 Hongik University - SunnyGraphy Inc.
1422 Immersion Corporation
734 JourneyEd.com
827 Okino Computer Graphics, Inc.
647 Softimage
930 Studica, Inc.
148 VisTrails Inc.
139 Web3D Consortium
1015 Wolfram Research, Inc.

Broadcast Design Software

1154 The3DShop.com
1031 Academic Superstore LP
501 Autodesk, Inc.
1536 Digital Anarchy
801 eyeon Software Inc.
739 Hewlett Packard Company
734 JourneyEd.com
529 MAXON Computer Inc.
761 RapidMind Inc.
647 Softimage
930 Studica, Inc.

Business and Financial Graphics

1156 Apace Systems Corporation
934 Contour Design, Inc.
966 DigiPen Institute of Technology
739 Hewlett Packard Company
734 JourneyEd.com
761 RapidMind Inc.
719 Smith Micro Software, Inc.
1407 Solid Modeling Solutions
930 Studica, Inc.
1015 Wolfram Research, Inc.
1100 Zygote Media Group, Inc.

CAD/CAM/CAE/CIM

1031 Academic Superstore LP
347 Aguru Images, Inc.
919 auto.des.sys, Inc.
1029 Axceleon Inc.
546 BOXX Technologies, Inc.
1011 CGAL - The Computational Geometry Algorithms Library
934 Contour Design, Inc.
453 Creaform 3D
116 Donya Labs
1129 e-on software, inc.
954 Future Publishing Limited
739 Hewlett Packard Company
1422 Immersion Corporation
1001 IntegrityWare, Inc.
734 JourneyEd.com
1160 LightWork Design Ltd.
554, 655 NVIDIA Corporation
827 Okino Computer Graphics, Inc.
119 Pantomat
961 Purdue University, Department of Computer Graphics Technology
761 RapidMind Inc.
451 Renderosity
1366 Robert McNeel & Associates
647 Softimage
1407 Solid Modeling Solutions
930 Studica, Inc.
1059 TechViz
1066 Triple Squid Software Design
1367 T-Splines, Inc.
154 The United States Mint
148 VisTrails Inc.
139 Web3D Consortium

Commercial Game Engines

1217 3DVIA, Dassault Systèmes
546 BOXX Technologies, Inc.
966 DigiPen Institute of Technology
116 Donya Labs
1129 e-on software, inc.
739 Hewlett Packard Company
755 NaturalMotion Ltd.
711 Pixologic, Inc.
761 RapidMind Inc.
1407 Solid Modeling Solutions

Commercial Game Equipment

136 [TC]2
1123 Bell Computer
1104 EyeTech Digital Systems, Inc.
954 Future Publishing Limited
147 IBM Corporation
211 InterSense
733 NaturalPoint Inc.
110 School of Film, TV and Multimedia Korean National

Computer-Video Interfacing

1154 The3DShop.com
904 Andersson Technologies LLC
546 BOXX Technologies, Inc.
1355 Electrosonic Systems Inc.
967 Fraunhofer HHI
739 Hewlett Packard Company
1422 Immersion Corporation
1419 iPi Soft
734 JourneyEd.com
733 NaturalPoint Inc.
914 NorPix Inc.
554, 655 NVIDIA Corporation
1247 Point Grey Research Inc.
451 Renderosity
719 Smith Micro Software, Inc.
930 Studica, Inc.

Conferences and Exhibitions

120 3Dconnexion, a Logitech company
962 Immersive Media Corp.
961 Purdue University, Department of Computer
139 Web3D Consortium

Consulting

347 Aguru Images, Inc.
1123 Bell Computer
453 Creaform 3D
739 Hewlett Packard Company
147 IBM Corporation
1001 IntegrityWare, Inc.
127 Intelligraphics Inc.
1419 iPi Soft
1417 Sensics Inc.
647 Softimage
1407 Solid Modeling Solutions
1005 Toon Boom Animation, Inc.
1015 Wolfram Research, Inc.
1100 Zygote Media Group, Inc.

Contract Graphics/ Programming

1463 American Paper Optics, Inc.
127 Intelligraphics Inc.
1419 iPi Soft
335 Lucasfilm Ltd.
937 Next Limit Technologies
961 Purdue University, Department of Computer Graphics Technology
931 Rhythm & Hues Studios
1100 Zygote Media Group, Inc.

Data Analysis

1114 3dMD, a 3Q Company
1124 AMAX Engineering Corp.
1156 Apace Systems Corporation
1112 Aspera, Inc.
966 DigiPen Institute of Technology
1536 Digital Anarchy
1104 EyeTech Digital Systems, Inc.
739 Hewlett Packard Company
847 Texas Memory Systems
148 VisTrails Inc.
1015 Wolfram Research, Inc.

Desktop Publishing

1031 Academic Superstore LP
1156 Apace Systems Corporation
546 BOXX Technologies, Inc.
801 eyeon Software Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
124 Hongik University - SunnyGraphy Inc.
734 JourneyEd.com
761 RapidMind Inc.
719 Smith Micro Software, Inc.
930 Studica, Inc.
1154 The3DShop.com
139 Web3D Consortium

Desktop Video Production Software

1154 The3DShop.com
904 Andersson Technologies LLC
1156 Apace Systems Corporation
546 BOXX Technologies, Inc.
1337 Chaos Group
1536 Digital Anarchy
1129 e-on software, inc.
801 eyeon Software Inc.
954 Future Publishing Limited
734 JourneyEd.com
958 The Pixel Farm
761 RapidMind Inc.
647 Softimage
930 Studica, Inc.

Digital Cameras

1114 3dMD, a 3Q Company
1031 Academic Superstore LP
347 Aguru Images, Inc.
453 Creaform 3D
954 Future Publishing Limited
739 Hewlett Packard Company
734 JourneyEd.com
1137 Motion Analysis Corporation
733 NaturalPoint Inc.

914 NorPix Inc.
1405 Panoscan Inc.
1247 Point Grey Research Inc.
521 Sony Electronics Inc.
1025 SpheronVR AG

Digital Imaging

136 [TC]2
1114 3dMD, a 3Q Company
817 Addison-Wesley Professional
1123 Bell Computer
1033 Craft Animations and Entertainment AB
966 DigiPen Institute of Technology
1536 Digital Anarchy
1235 Digital-Tutors
1129 e-on software, inc.
801 eyeon Software Inc.
1104 EyeTech Digital Systems, Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
1422 Immersion Corporation
962 Immersive Media Corp.
127 Intelligraphics Inc.
1223 Isilon Systems, Inc.
230 Kolor
1160 LightWork Design Ltd.
937 Next Limit Technologies
914 NorPix Inc.
958 The Pixel Farm
711 Pixologic, Inc.
1247 Point Grey Research Inc.
761 RapidMind Inc.
451 Renderosity
719 Smith Micro Software, Inc.
647 Softimage
521 Sony Electronics Inc.
1025 SpheronVR AG
148 VisTrails Inc.
139 Web3D Consortium
1015 Wolfram Research, Inc.
1100 Zygote Media Group, Inc.

Digital Video Hardware

1154 The3DShop.com
1031 Academic Superstore LP
901 AJA Video Systems
1156 Apace Systems Corporation
1123 Bell Computer
546 BOXX Technologies, Inc.
1355 Electrosonic Systems Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
932 HPC Systems, Inc.
962 Immersive Media Corp.
734 JourneyEd.com
1468 Lightspeed Design, Inc.
733 NaturalPoint Inc.
914 NorPix Inc.
554, 655 NVIDIA Corporation
958 The Pixel Farm
1247 Point Grey Research Inc.
110 School of Film, TV and Multimedia Korean National
647 Softimage
521 Sony Electronics Inc.

Digitizing Cameras

1114 3dMD, a 3Q Company
1031 Academic Superstore LP
347 Aguru Images, Inc.
1156 Apace Systems Corporation
453 Creaform 3D
1422 Immersion Corporation
914 NorPix Inc.
119 Pantomat
110 School of Film, TV and Multimedia Korean National

Display Technology

1154 The3DShop.com
327 AMD
967 Fraunhofer HHI
954 Future Publishing Limited
739 Hewlett Packard Company
554, 655 NVIDIA Corporation
110 School of Film, TV and Multimedia Korean National
1417 Sensics Inc.
521 Sony Electronics Inc.
925 Wacom Technology Corporation

DVD Authoring Tools

1154 The3DShop.com
954 Future Publishing Limited
739 Hewlett Packard Company
110 School of Film, TV and Multimedia Korean National

Education/Training

1166 3DTotal.com
1031 Academic Superstore LP
319 Academy of Art University
817 Addison-Wesley Professional
1401 ANIMATIONMENTOR.COM
1109 The Art Institutes
311 Bunkspeed, Inc.
837 cebas Computer GmbH
216 Center for Computation & Technology at Louisiana State University
1118 The Cleveland Institute of Art
855 Cogswell Polytechnical College
1415 Collins College
1019 Course Technology PTR, a part of Cengage Learning
453 Creaform 3D
966 DigiPen Institute of Technology
1155 Digital Media Arts College
801 eyeon Software Inc.
1108 Gnomon, Inc.
447 Graduate School of Culture Technology
147 IBM Corporation
962 Immersive Media Corp.
1411 International Academy of Design & Technology
253 lynda.com, Inc.
115 Ohio University
961 Purdue University, Department of Computer Graphics Technology
451 Renderosity
1117 Ringling College of Art and Design
1039 Savannah College of Art and Design
110 School of Film, TV and Multimedia Korean National
647 Softimage
1407 Solid Modeling Solutions
1005 Toon Boom Animation, Inc.
1437 Trinity Animation Inc.
1068 The University of the Arts
247 University of Central FL - Florida Interactive Ent
1315 Vancouver Film School
139 Web3D Consortium
1015 Wolfram Research, Inc.
1100 Zygote Media Group, Inc.

Electronic Publishing

1129 e-on software, inc.
801 eyeon Software Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
124 Hongik University - SunnyGraphy Inc.
734 JourneyEd.com
335 Lucasfilm Ltd.
761 RapidMind Inc.
451 Renderosity
1007 TurboSquid, Inc.
1015 Wolfram Research, Inc.

Encoders/Decoders

1154 The3DShop.com
1156 Apace Systems Corporation
546 BOXX Technologies, Inc.
966 DigiPen Institute of Technology
1355 Electrosonic Systems Inc.
967 Fraunhofer HHI
958 The Pixel Farm
761 RapidMind Inc.

Encoders/Decoders-HW

1154 The3DShop.com
901 AJA Video Systems
327 AMD
1156 Apace Systems Corporation
1123 Bell Computer
546 BOXX Technologies, Inc.
1355 Electrosonic Systems Inc.
967 Fraunhofer HHI

Engineering Applications

120 3Dconnexion, a Logitech company
217 Activision
1112 Aspera, Inc.
1029 Axceleon Inc.
966 DigiPen Institute of Technology
1355 Electrosonic Systems Inc.
461 EON Reality, Inc.
1104 EyeTech Digital Systems, Inc.
967 Fraunhofer HHI
1422 Immersion Corporation
1001 IntegrityWare, Inc.
511 Intel Corporation
734 JourneyEd.com
937 Next Limit Technologies
827 Okino Computer Graphics, Inc.
833 PipelineFX, LLC
761 RapidMind Inc.
1366 Robert McNeel & Associates
1407 Solid Modeling Solutions
930 Studica, Inc.
1066 Triple Squid Software Design
1367 T-Splines, Inc.
139 Web3D Consortium
1015 Wolfram Research, Inc.

Furniture

861 Noren Products Inc.

Geographic Information Systems

962 Immersive Media Corp.

Geographic Information Systems-HW

116 Donya Labs
739 Hewlett Packard Company
827 Okino Computer Graphics, Inc.
761 RapidMind Inc.
930 Studica, Inc.

Graphic Design Systems

1156 Apace Systems Corporation
919 auto.des.sys, Inc.
1337 Chaos Group
966 DigiPen Institute of Technology
1129 e-on software, inc.
801 eyeon Software Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
734 JourneyEd.com
554, 655 NVIDIA Corporation
833 PipelineFX, LLC
711 Pixologic, Inc.
761 RapidMind Inc.
451 Renderosity
110 School of Film, TV and Multimedia Korean National
719 Smith Micro Software, Inc.
1407 Solid Modeling Solutions
930 Studica, Inc.
1066 Triple Squid Software Design
139 Web3D Consortium

Graphics Accelerator Boards

1123 Bell Computer
954 Future Publishing Limited
739 Hewlett Packard Company
511 Intel Corporation
734 JourneyEd.com
554, 655 NVIDIA Corporation
958 The Pixel Farm
1317 Pixellexis Systems & Technologies Inc.
761 RapidMind Inc.
451 Renderosity
930 Studica, Inc.
1059 TechViz

Graphics Accelerator Boards-HW

1154 The3DShop.com
327 AMD

KNUA. Center for Consilience of
Ubiquitous Arts and Technology

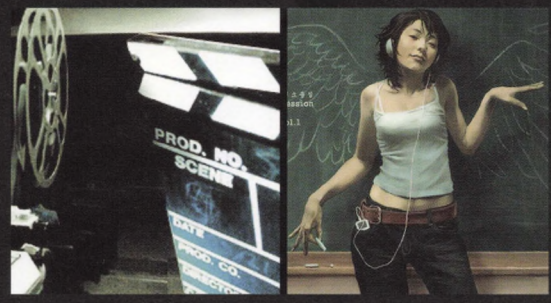
Korea National University of Arts
School of Film, TV & Multimedia

K'ARTS / KNUA

Korea National University of Arts (K'ARTS) is established by Ministry of Culture, Sports and Tourism Republic of Korea. **K'ARTS** is the unique University that is only specialized in art education in entire Asia. **K'ARTS** consists of six independent but correlative colleges: **School of Music, School of Drama, School of Film, TV & Multimedia, School of Dance, School of Visual Arts**, and **School of Korean Traditional Arts.** Each college only has major subject centered on practical skills and creation of art without any liberal studies.
K'ARTS offers 4-Years Bachelor Degree Course and 2-years Master Degree Courses specialized in whole field of art studies while providing 3years early garduation and run a special education program for the gifted teenager and children.

SFTM School of Film,TV & Multimedia

SFTM: School of Film, TV & Multimedia actively focuses on multimedia literacy than letter literacy as visual media emerges as the most influential art media in the contemporary arts. **SFTM** consists of **Department of Film Making, Department of Cinema Studies, Department of Multimedia, Department of Animation, Department of Broadcasting.**
K'ARTS is the another independent art school under the theme of moving images. We produce outstanding moving image professionals with 80 animation and films every year to lead the contemporary visual culture. With its excellent equipments and facilities, **SFTM** provides a combination of arts & technology. **SFTM** graduates have been produced 900 film since 1996 and the best films will be screen for SIGGRAPH 2008 show audiences at **SFTM** booth.

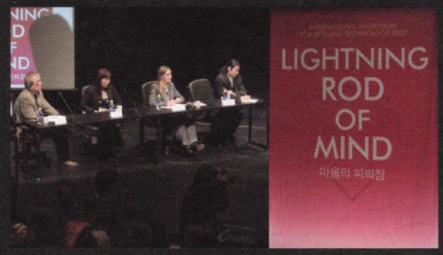


U-AT Labs

U-AT Labs at **K'ARTS** sponsored by the Ministry of Culture, Sports and Tourism Republic of Korea, that is incorporated into Korea's cutting-edge IT technology and infrastructure as contents producing ability and Arts & technology capacity.
U-AT project is divided into 10 labs: **Algorithm for Special Sound Lab, Performance Creation & Education Lab, VAT FXCD Lab, Digital Media Motion Graphics Lab, U-Smart City Lab, Art & Play Lab, U-AT Clinic Lab, U-AT Media Education Lab, Digital Archiving Lab, Digital Media Content Formatting Lab**.
U-AT Labs organize academic cooperation system encouraging communication in arts & technology and harmony of 6 colleges as an advance base.

ISAT 2008

ISAT(International Symposium for Arts & Technology)2007 was successfully held in **K'ARTS**, Seoul on November 2007, worldrenowned scholars, Christa Sommerer, Masayuki Akamatsu, Itsuo Sakane and Anne Nighten participated as guest speakers at the **ISAT 2007**. This year's symposium will continue its success inviting internationally renowned scholars, professionals such as Jeffrey Shaw, Roy Ascott, Lynn Hershaman to exchange information on the latest developments in arts and technology. **ISAT 2008** will be the opportunity to have discourse on the junction of **U-AT** project. We cordially invite you to attend the Symposium on **october, 2008 at K'ARTS in Seoul, Korea.**



SIGGRAPH2008: 12-14 Aug 2008 LA Convention Center Booth No. 110

K'ARTS

"U-AT" Lab (Ubiquitous-Arts & Technology Lab)
Education for Consilience of Arts & Technology in the age of Ubiquitous Computing

www.knua.ac.kr www.knuani.net

546 BOXX Technologies, Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
147 IBM Corporation
511 Intel Corporation
127 Intelligraphics Inc.
554, 655 NVIDIA Corporation
958 The Pixel Farm
1317 Pixellexis Systems & Technologies Inc.
747 PNY Technologies, Inc.
761 RapidMind Inc.
1015 Wolfram Research, Inc.

Graphics Standards Software

1129 e-on software, inc.
127 Intelligraphics Inc.
719 Smith Micro Software, Inc.
139 Web3D Consortium

GroupWare Software

1013 Faceware Society LLC
124 Hongik University - SunnyGraphy Inc.

Haptic Input Devices

954 Future Publishing Limited
739 Hewlett Packard Company
1422 Immersion Corporation
930 Studica, Inc.
154 The United States Mint
1015 Wolfram Research, Inc.

Hardcopy Devices, Photographs/Slides

1154 The3DShop.com

HDTV

901 AJA Video Systems
327 AMD
1156 Apace Systems Corporation
546 BOXX Technologies, Inc.
1355 Electrosonic Systems Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
914 NorPix Inc.
554, 655 NVIDIA Corporation
958 The Pixel Farm
110 School of Film, TV and Multimedia Korean National
1417 Sensics Inc.
647 Softimage
521 Sony Electronics Inc.

Head Mounted Displays

954 Future Publishing Limited
211 InterSense
733 NaturalPoint Inc.
1417 Sensics Inc.

High Performance Graphics Processors

1154 The3DShop.com
327 AMD
546 BOXX Technologies, Inc.
1355 Electrosonic Systems Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
932 HPC Systems, Inc.
147 IBM Corporation
511 Intel Corporation
127 Intelligraphics Inc.
554, 655 NVIDIA Corporation
958 The Pixel Farm
1317 Pixellexis Systems & Technologies Inc.
747 PNY Technologies, Inc.
521 Sony Electronics Inc.
234 Verari Systems, Inc.

High Resolution Technologies

136 [TC]2
1154 The3DShop.com
347 Aguru Images, Inc.
327 AMD
1156 Apace Systems Corporation
546 BOXX Technologies, Inc.
1355 Electrosonic Systems Inc.
147 IBM Corporation
962 Immersive Media Corp.
127 Intelligraphics Inc.
211 InterSense
914 NorPix Inc.
554, 655 NVIDIA Corporation
521 Sony Electronics Inc.
1025 SpheronVR AG
234 Verari Systems, Inc.

Image Based Modeling

1114 3dMD, a 3Q Company
817 Addison-Wesley Professional
347 Aguru Images, Inc.
904 Andersson Technologies LLC
966 DigiPen Institute of Technology
1235 Digital-Tutors
1129 e-on software, inc.
967 Fraunhofer HHI
954 Future Publishing Limited
1422 Immersion Corporation
1419 iPi Soft
119 Pantomat
958 The Pixel Farm
711 Pixologic, Inc.
1247 Point Grey Research Inc.
451 Renderosity
719 Smith Micro Software, Inc.
647 Softimage
1407 Solid Modeling Solutions
1025 SpheronVR AG
154 The United States Mint
139 Web3D Consortium
1100 Zygote Media Group, Inc.

Image Management

1112 Aspera, Inc.
934 Contour Design, Inc.
1355 Electrosonic Systems Inc.
1129 e-on software, inc.
954 Future Publishing Limited
1223 Isilon Systems, Inc.
958 The Pixel Farm
647 Softimage
521 Sony Electronics Inc.

Industrial Design

347 Aguru Images, Inc.
919 auto.des.sys, Inc.
501 Autodesk, Inc.
727 Avatar Reality, Inc.
1033 Craft Animations and Entertainment AB
1235 Digital-Tutors
1129 e-on software, inc.
801 eyeon Software Inc.
954 Future Publishing Limited
739 Hewlett Packard Company
1422 Immersion Corporation
734 JourneyEd.com
937 Next Limit Technologies
554, 655 NVIDIA Corporation
827 Okino Computer Graphics, Inc.
761 RapidMind Inc.
1366 Robert McNeel & Associates
1059 TechViz
1066 Triple Squid Software Design
1367 T-Splines, Inc.

Information Visualization

1114 3dMD, a 3Q Company
817 Addison-Wesley Professional
919 auto.des.sys, Inc.
1033 Craft Animations and Entertainment AB
859 Cycling '74
1536 Digital Anarchy
1355 Electrosonic Systems Inc.
1129 e-on software, inc.
801 eyeon Software Inc.
739 Hewlett Packard Company
147 IBM Corporation
1422 Immersion Corporation
962 Immersive Media Corp.
937 Next Limit Technologies
833 PipelineFX, LLC
647 Softimage
1005 Toon Boom Animation, Inc.
148 VisTrails Inc.
139 Web3D Consortium
1015 Wolfram Research, Inc.

Input Devices

120 3Dconnexion, a Logitech company
1154 The3DShop.com
1156 Apace Systems Corporation
934 Contour Design, Inc.
1355 Electrosonic Systems Inc.
1104 EyeTech Digital Systems, Inc.
954 Future Publishing Limited
1422 Immersion Corporation
127 Intelligraphics Inc.
211 InterSense
733 NaturalPoint Inc.
914 NorPix Inc.
119 Pantomat
1363 Polhemus
140 Tobii Technology AB
1437 Trinity Animation Inc.
925 Wacom Technology Corporation
1015 Wolfram Research, Inc.

Interface Tools

120 3Dconnexion, a Logitech company
901 AJA Video Systems
1463 American Paper Optics, Inc.
863 ATTO Technology, Inc.
954 Future Publishing Limited
1422 Immersion Corporation
211 InterSense
733 NaturalPoint Inc.

Mapping and Cartography

817 Addison-Wesley Professional
1011 CGAL - The Computational Geometry Algorithms Library
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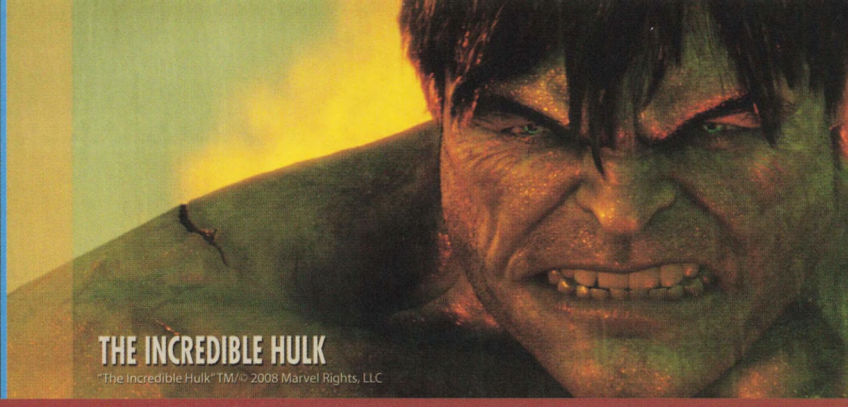

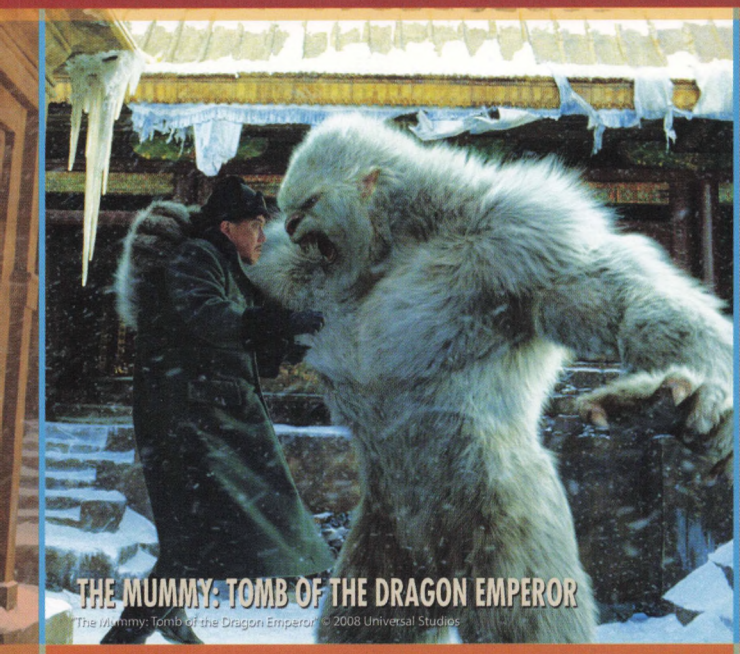

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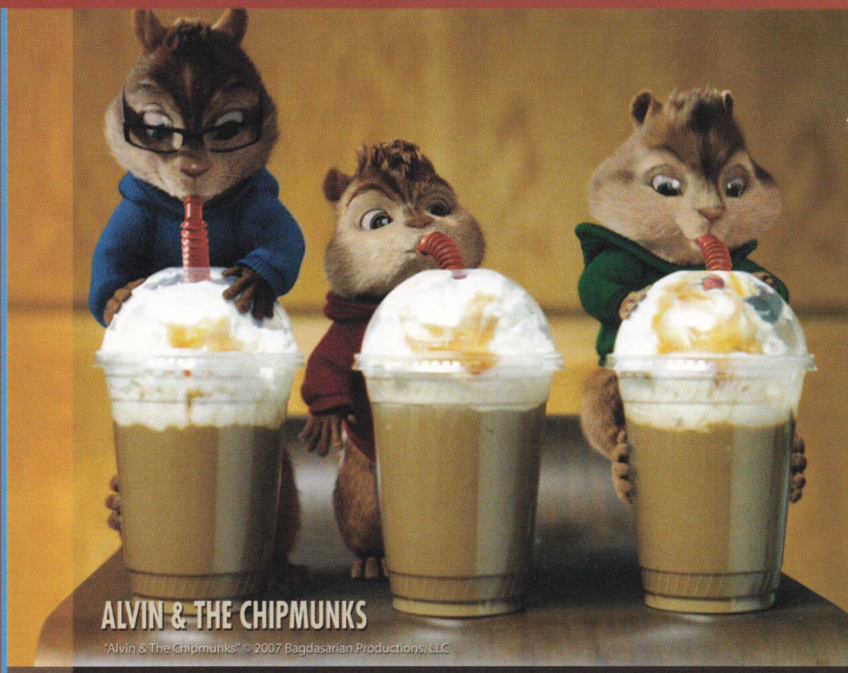
CIRQUE DU FREAK
THEY CAME FROM UPSTAIRS
THE FAST & THE FURIOUS 4
STATE OF PLAY
THE GHOSTS OF GIRLFRIENDS PAST
MEET DAVE
THE TIME TRAVELER'S WIFE

OTHER RECENT PRODUCTIONS:

EVAN ALMIGHTY
THE KINGDOM
NIGHT AT THE MUSEUM
GARFIELD: A TALE OF TWO KITTIES
THE LION, THE WITCH AND THE WARDROBE
SUPERMAN RETURNS



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1468 Lightspeed Design, Inc.
755 NaturalMotion Ltd.
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937 Next Limit Technologies
961 Purdue University, Department of Computer Graphics Technology
451 Renderosity
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Streaming Technology

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Video Effects Equipment

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Visual Effects Software

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761 RapidMind Inc.
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701 Sony Pictures Imageworks Inc.
1536 SpeedSix Software Limited
930 Studica, Inc.
1007 TurboSquid, Inc.
150 Uberware
1100 Zygote Media Group, Inc.

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ACM SIGGRAPH Organization Overview

ACM SIGGRAPH
In the span of 35 years, ACM SIGGRAPH has grown from a handful of computer graphics enthusiasts to a diverse group of researchers, artists, developers, filmmakers, scientists, and other professionals who share an interest in computer graphics and interactive techniques. Our community values excellence, passion, integrity, volunteerism, and cross-disciplinary interaction. We sponsor not only the annual SIGGRAPH conference, but also focused symposia, chapters in cities throughout the world, awards, grants, educational resources, online resources, a public policy program, and the SIGGRAPH Video Review.

Membership
The SIGGRAPH community depends on your support. Help us continue our global efforts in education, communications, and advocacy by joining ACM SIGGRAPH for $35 per year ($25 per year for students, $40 for Pioneers, and $28 for Eurographics members). Become an ACM SIGGRAPH member and receive a siggraph.org email alias, access to the archive of SIGGRAPH Proceedings in the ACM Digital Library, Computer Graphics e-Quarterly, discounted registrations on ACM SIGGRAPH sponsored programs and events including the annual SIGGRAPH and SIGGRAPH Asia conferences and partner conferences such as Eurographics, as well as discounts on publications and preferred vendor deals on valuable merchandise. For more details on membership or to join online, visit www.siggraph.org and select "Membership." For those of you who are already members, thank you for your continued and loyal support.

ACM
ACM SIGGRAPH's parent organization is ACM, the Association for Computing Machinery. ACM is the world's largest educational and scientific computing society, uniting educators, researchers, and professionals to inspire dialogue, share resources, and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking. Many ACM SIGGRAPH members also join ACM.

The benefits of ACM membership include full access to online books and courses, the ACM Career & Job Center, subscriptions to ACM's popular email alert news digests TechNews and CareerNews, and the online newsletter MemberNet. ACM members may subscribe to the Digital Library and receive full access to the Guide to Computing Literature, which features more than one million bibliographic citations from the vast world of computing. ACM members also receive discounts on cutting-edge magazines, journals, books, and conferences.

For more information, visit: www.acm.org

Awards
ACM SIGGRAPH awards the prestigious Steven A. Coons award for lifetime achievement, the Computer Graphics Achievement Award for notable achievements, the Outstanding Service Award for extraordinary service to ACM SIGGRAPH by a volunteer, and the Significant New Researcher Award, for new contributors to our field. Beginning in 2009, SIGGRAPH will also award the Distinguished Artist Award for lifetime achievement in digital art.

For a list of past award recipients, visit: www.siggraph.org/awards

Education Committee
The ACM SIGGRAPH Education Committee works to support computer graphics education as well as the use of computer graphics in education. Computer graphics education encompasses technical, creative, and developmental studies in curricular areas ranging from computer science to digital arts. The Education Committee undertakes a broad range of projects and activities in support of the CG education community, such as curriculum studies, resources for educators, and SIGGRAPH conference-related activities. This includes the international, juried SpaceTime Student Competition & Exhibition and much more.

For more information, please visit: education.siggraph.org

Digital Arts Community
The ACM SIGGRAPH Digital Arts Community committee serves to foster the evolution of a strong digital arts community within the international organization and to promote a dialogue between visual artists and the larger SIGGRAPH community. One of its main projects is the creation of a content-rich interactive Arts Portal, arts.siggraph.org, to provide a central place for artists to share resources, information, artwork, and opportunities, and provide a practical way for all ACM SIGGRAPH members to follow developments in the arts, stay connected, and identify potential collaborators.

For more information, visit: arts.siggraph.org/

External Relations Committee
ACM SIGGRAPH has agreements with a number of organizations and conferences around the world. To see the list of current affiliations or to inquire about what is involved in entering into such a relationship, stop by the ACM SIGGRAPH Membership booth or visit: www.siggraph.org/affiliations

Professional & Student Chapters
Chapters of ACM SIGGRAPH exist in 65 cities in 16 countries around the world. They form an international multi-cultural network of people who develop, share, continue, and extend the work and achievements presented at the annual conference. Chapter members include those involved in research, development, education, art, gaming, visualization, and entertainment, just to name a few.

For more information about the ACM SIGGRAPH network of chapters, or if you would like to start a Professional or Student Chapter, visit: www.siggraph.org/chapters

Publications
ACM SIGGRAPH publications provide the world's leading forums for computer graphics research. Our conference series provides the largest source of citations in computer graphics literature.

Publications are available to ACM SIGGRAPH members for substantial discounts.
See: www.siggraph.org/publications

Small Conferences and Symposia
ACM SIGGRAPH helps organize and sponsor focused conferences, workshops, and other symposia around the world on topics related to computer graphics and interactive techniques. These gatherings enable groups with specific interests to get together and exchange information.

To see the list of symposia or find out how to get help for a conference you'd like to organize, stop by the ACM SIGGRAPH Membership booth or visit: www.siggraph.org/conferences

SIGGRAPH Video Review
SIGGRAPH Video Review is the world's most widely circulated video-based publication. Over 160 programs document the annual SIGGRAPH Computer Animation Festival, providing an unequaled opportunity to study state-of-the-art computer graphics techniques, theory, and applications. New releases and recent issues are available in DVD format.

Visit the SIGGRAPH Review booth: West Hall, Room 509.

SIGGRAPH 2009
Interested in participating in the SIGGRAPH 2009 conference as a presenter or volunteer? Stop by the SIGGRAPH 2009 Booth, talk with the volunteer leaders who organize the annual SIGGRAPH conference, and discover how you can contribute your expertise and energy.

Questions and comments are encouraged.
www.siggraph.org/s2009

SIGGRAPH Asia 2008
Singapore

Want to know more about the programs and participants at the exciting first SIGGRAPH Asia Conference and Exhibition in Singapore? Come by the SIGGRAPH Asia Booth in the Village for more information, or simply chat with us!.

www.siggraph.org/asia2008

SIGGRAPH Asia 2009
Yokohama, Japan

Would you like to make a difference? To find out how you can get involved as a volunteer in SIGGRAPH Asia 2009, visit the International Center in Hall H on 14 August, 12.30 pm or 3 pm. Speak to the program chairs, ask questions, and say "yes" to an exciting and fulfilling experience. Don't miss it!

Volunteers
All of the programs developed by ACM SIGGRAPH rely heavily on volunteer support. As a member, you are eligible to serve in some of ACM SIGGRAPH's most visible positions, including leading a professional chapter, chairing the annual conference, or serving on the ACM SIGGRAPH Executive Committee. For more information, see: www.siggraph.org/gen-info/volunteerpositions.html

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The following societies have cooperative agreements with ACM SIGGRAPH.

Annecy
Annecy has been showcasing the very best in animation for over 45 years, making it the industry's leading international competitive festival. Its presentation and promotion of animation in all its different forms has made Annecy a worldwide point of reference for the animation industry.

www.annecy.org

China Cartoon Industry Forum (CCIF)
Supported by the Chinese government, CCIF was founded by the Cartoon Commission of the China TV Artists Association. As the most influential Chinese animation conference, CCIF promotes industrialization, internationalization, and market development. It operates two projects: the Asian Youth Animation & Comics Contest and the China Animation & Comics Game. The youth contest is positioned to be the top annual award for Asian original animation and comics. The game project is building an animation-training system to provide vocational animation and comics training courses.

www.ccif.com.cn

Computer Graphics Arts Society (CG-ARTS)
CG-ARTS, officially recognized by the Ministry of Education, Culture, Sports, Science and Technology in 1992, is a publicly funded body dedicated to promoting Japanese computer graphics education. Its projects range from drafting curricula to development and publication of teaching materials, nurturing instructors, and providing certification tests to evaluate the ability of each individual. It is also dedicated to developing a distinctive Japanese media-arts culture in the 21st century by hosting the Computer Graphics Contest for Students since 1995 and co-organizing the Japan Media Arts Festival in conjunction with the Agency for Cultural Affairs since 1996.

www.cgarts.or.jp

Digital Content Association of Japan (DCAJ)
DCAJ is a government-approved non-profit organization that promotes the Japanese digital-content industry. It organizes the Digital Content Expo (DC EXPO) 2008 (www.dc-expo.jp), 23-26 October, at the Miraikan Museum in Tokyo.

www.dcaj.org/outline/english/index.html

Eurographics
The European Association for Computer Graphics is a professional association that assists members with their work and careers in computer graphics and interactive digital media. Eurographics has members worldwide and maintains close links with developments in the USA, Japan, and other countries by inviting speakers from those countries to participate in Eurographics events and by sending representatives to other events. Eurographics 2009 will be held at the Technischen Universität München, 30 March – 3 April 2009.

www.eg.org

FMX
FMX is the primary European meeting of the digital community. Presenting cutting-edge digital entertainment, the conference addresses the interests of professionals in creation, production, and distribution from all corners of the industry. Innovative approaches in the animation, visual effects and gaming industries create a focus for discussions about the convergence and future of digital entertainment.

Meet top names in the industry as they present their latest achievements, interview with recruiters searching for new talent and test hardware and software innovations directly with developers – all in an open atmosphere of qualified discussion and informal encounter. The level of knowledge and experience and the openness with which it is shared has made FMX a key event for CG professionals all around the world.

www.fmx.de

IMAGINA
IMAGINA, at the Grimaldi Forum in Monte-Carlo, 4-6 February 2009, is the major European 3D Community Event, centered on solutions that assist in designing and reaching decisions through visualisation and simulation.

www.imagina.mc

Laval Virtual
The 11th International Conference on Virtual Reality will be held on 22-26 April 2009, in Laval, France. Laval Virtual is where virtual reality users share the latest techniques from their fields of expertise.

www.laval-virtual.org

Seoul International Cartoon & Animation Festival (SICAF)
SICAF focuses on the dynamic new-media environment and presents current trends in cartoons and animation through its exhibition, animated film festival, and SPP Market.

http://www.sicaf.org

VIEW Conference
VIEW Conference is Italy's premiere international event on computer graphics, interactive techniques, animation and VFX, and design and videogames. VIEW 2008, Digital Transformations, 11-14 November in Turin, presents the most up-to-date insights from world-class experts through lectures, meetings, tributes, exhibits, screenings, and demo presentations.

www.viewconference.it

Los Angeles Map & Hotels

1 Wilshire Grand Los Angeles
Headquarters Hotel

2 Clarion Hotel & Suite

3 Courtyard by Marriott Los Angeles Westside

4 Four Points by Sheraton LA Westside

5 Holiday Inn Los Angeles City Center

6 Hotel Figueroa

7 Hyatt Regency Century Plaza

8 Kawada Hotel

9 Kyoto Grand Hotel and Garden

10 The Los Angeles Athletic Club

11 Marriott Los Angeles Hotel

12 Millennium Biltmore Hotel Los Angeles

13 Miyako Hotel Los Angeles

14 O Hotel

15 Omni Los Angeles at California Plaza

16 Radisson Los Angeles Westside

17 Ritz Milner Hotel

18 Rodeway Inn Convention Center

19 Sheraton Los Angeles Downtown

20 The Standard Hotel Downtown LA

21 The Westin Bonaventure Hotel and Suites

22 UCLA Housing DeNeve Plaza

23 Wilshire Plaza Hotel Los Angeles

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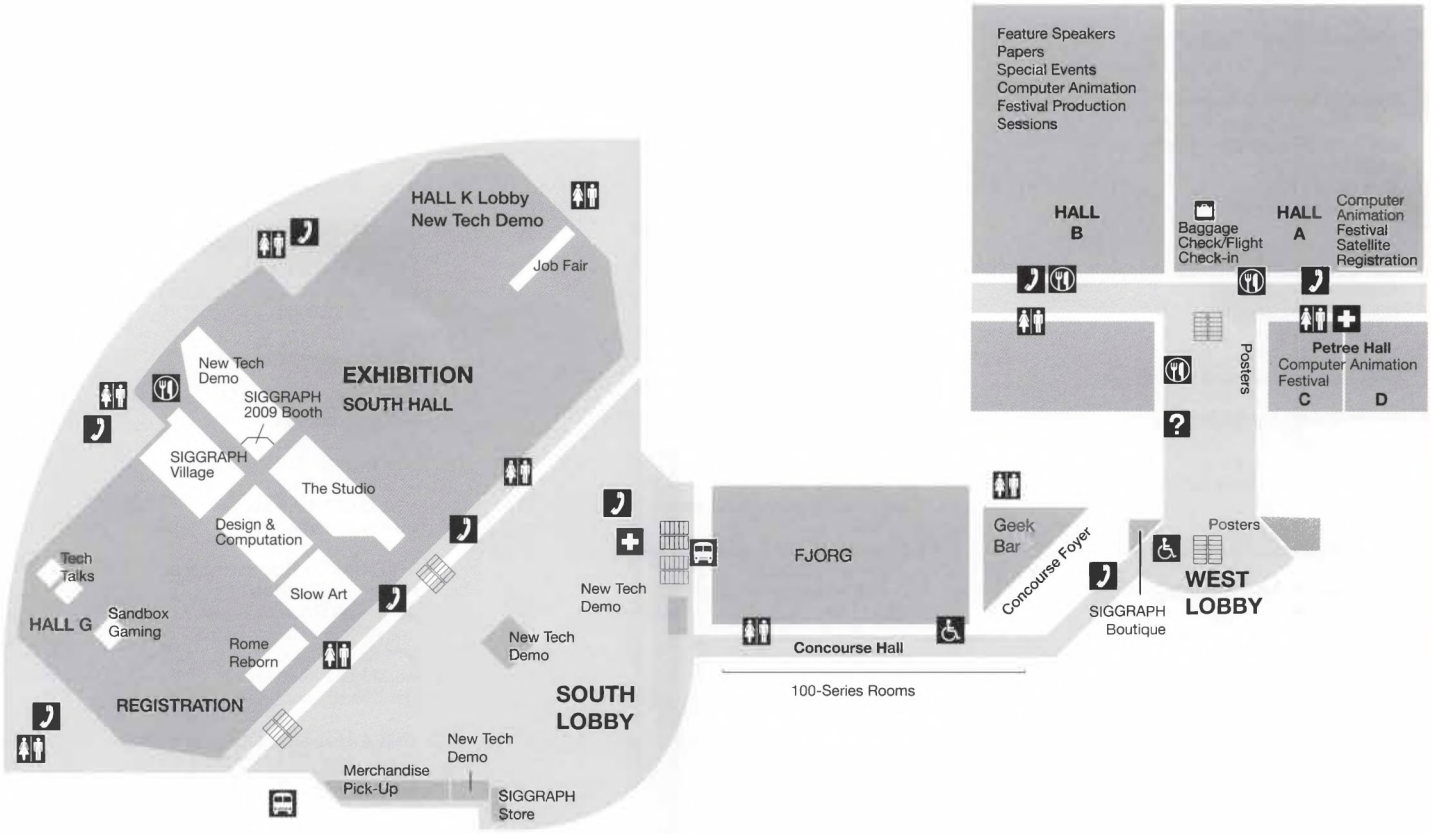
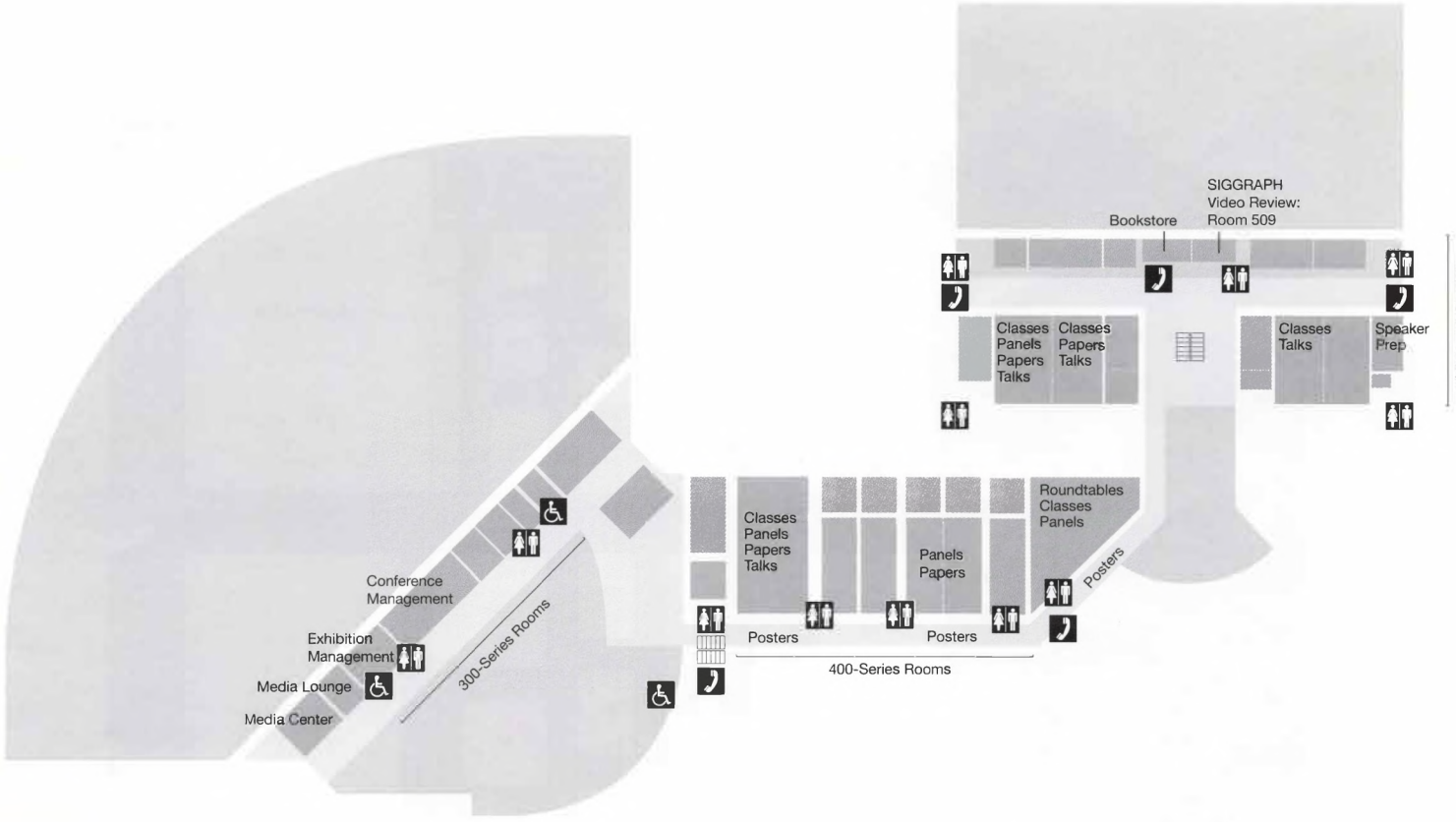


- Telephones
- Information
- Restrooms
- Food & Beverage
- First Aid
- Baggage Check
- Shuttle Pick-up and Drop-off
- Handicap Access

Second Floor



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South Hall & Exhibition

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Stanford University
Technische Universtät Berlin
University of Maryland Baltimore County & Scientific Visualization Studio, NASA
Walt Disney Parks & Resorts New Technology

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Disney Feature Animation
DuPont Surfaces
EOS North America
MIT Council for the Arts
NASA Earth Observing System
Philips Design
RedEye/Stratasys
SITU Design Studio
Stanford University, Office of the Vice Provost for Undergraduate Education
York Technical College/3D Systems
Z Corporation

Computer Animation Festival
Adobe Systems Incorporated
Autodesk, Inc.
Brett Davidson Design
Christie Digital
Digital Ordnance
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Gnomon, Inc.
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LA Inc., The Los Angeles Conventon & Visitors Bureau
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PNY Technologies, Inc.
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Ingredients Design, LLC
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Monterey Bay Aquarium Research Institute
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Network for Computational Nanotechnology, Purdue University
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MITRE Corporation
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Walt Disney Imagineering R&D and Walt Disney Animation Studios

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Boxx Technologies, Inc.
Computer Graphics World
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IdN Magazine
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Kurv
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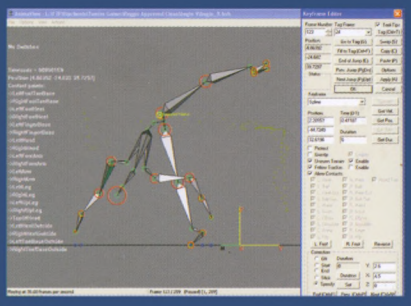

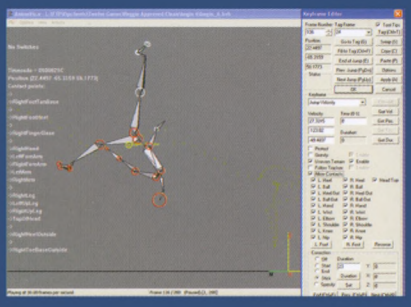

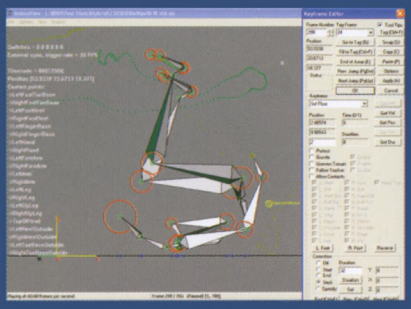

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