



Advance Program

www.siggraph.org/s2006

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“The SIGGRAPH convention is the premier global conference for computer graphics and interactive technologies.” NEW YORK TIMES

“...the annual SIGGRAPH conference, a showcase of the latest in computer graphics and a sneak peek at the next generation in the pipeline.” EE TIMES

“An eclectic assortment of creative individuals came to experience groundbreaking technology, breathtaking animation and stunning imagery...” CREATE MAGAZINE

“A very cerebral show by nature, SIGGRAPH is all about learning and demonstrating new graphics technologies, products, and design techniques.” EWEEK.COM

“SIGGRAPH Puts the Future of Computer Animation and Interactive Technology on Display” RAVE!

“Five days of peace, love, and pixels.” LONGBOAT KEY OBSERVER

“...SIGGRAPH, the computer-graphics Woodstock.” NEWSWEEK

- Full Conference
- Conference Select
- Exhibits Plus
One Day

One Day registration includes access to conference programs and events. It does not include technical documentation or tickets for the reception and the Electronic Theater.

Conference at a Glance

Schedule is subject to change. Check the SIGGRAPH 2006 web site often for updated information for this year's programs and events.

	SAT, 29 JULY	SUN, 30 JULY	MON, 31 JULY	TUES, 1 AUG	WED, 2 AUG	THU, 3 AUG
Registration	6 – 8 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 3:30 pm
Merchandise Pickup	6 – 8 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 3:30 pm
SIGGRAPH Store	6 – 8 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm
●●○ Exhibition				9:30 am – 6 pm	9:30 am – 6 pm	9:30 am – 3:30 pm
PRESENTATIONS						
● Courses		8:30 am – 5:30 pm	8:30 am – 5:30 pm	8:30 am – 5:30 pm	8:30 am – 5:30 pm	
● Papers			8:30 am – 6 pm	8:30 am – 5:30 pm	8:30 am – 6 pm	8:30 am – 5:30 pm
●● Panels			3:45 – 5:30 pm	10:30 am – 5:30 pm	10:30 am – 12:15 pm & 3:45 – 5:30 pm	
●● Sketches			10:30 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
●●○ Research 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
●● Educators Program					8:30 am – 6 pm	8:30 am – 5 pm
●●○ Keynote Address/Awards			1:15 – 3:15 pm			
●● Special Sessions						
Plugged In			4:45 – 6:45 pm			
Vrooom Vrooom				4:45 – 6:45 pm		
20,000 Bits Under the Sea					1:45 – 3:45 pm	
Sounding Off					4:45 – 6:45 pm	
●●○ Special Events						
Fast-Forward Papers Preview		6 – 8 pm				
ACM Student Research Competition Presentations				10:30 am – 12:15 pm		
Fashion Show 2006			10 – 11 pm			
LEGO Mindstorms: The Next Generation					1 – 6:30 pm	
●●○ Exhibitor Tech Talks				9:30 am – 6 pm	9:30 am – 6 pm	9:30 am – 3:30 pm
EXPERIENCES						
●●○ Art Gallery		1 – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 5 pm
Computer Animation Festival						
● Electronic Theater			7 – 9 pm	7 – 9 pm	7 – 9 pm	
●● Electronic Theater Matinée				1:30 – 3:30 pm	1:30 – 3:30 pm	
●●○ Animation Theaters		1 – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 5 pm
●●○ Emerging Technologies		1 – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 5 pm
●●○ Guerilla Studio		1 – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 6 pm	9 am – 5 pm
● Reception					8 – 10 pm	
SERVICES						
●●○ Birds of a Feather	Throughout the week					
●●○ Get Involved				5 – 6:30 pm		
●●○ International Resources	6 – 8 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 5 pm
●●○ Job Fair				10 am – 4 pm	10 am – 4 pm	10 am – 4 pm
●●○ Pathfinders	6 – 8 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 6 pm	8 am – 2 pm

- Full Conference
- Conference Select
- Exhibits Plus
- One Day

One Day registration includes access to conference programs and events. It does not include technical documentation or tickets for the reception and the Electronic Theater.

Presentations



Courses

Sunday – Wednesday, 30 July – 2 August

Interdisciplinary instruction by experts from academia and industry who demonstrate the latest techniques, analyze complex algorithms and their implementations, and accelerate understanding of the core concepts in computer graphics and interactive techniques. Courses are presented as brief tutorials, half-day sessions, and intensive full-day sessions. These courses are only available at SIGGRAPH 2006. Complete list of Courses, pages 16 – 21.



Keynote Address and Awards

Monday, 31 July, 1:15 – 3:15 pm

Each year, ACM SIGGRAPH invites a world-class author, executive, artist, thinker, or techno-adventurer to present a provocative perspective on the future of computer graphics and interactive techniques. A sample list of previous keynote presenters includes:

Jim Blinn
Microsoft Research

Helaman Ferguson
Sculptor & Mathematician

Bran Ferren
Walt Disney Imagineering

Ray Kurzweil
Inventor & Author

Anthony Lasenby
Cambridge University

George Lucas
Director, Producer and Screenwriter

In the same session, ACM SIGGRAPH presents its awards for significant achievements in the field: the Computer Graphics Achievement Award to Tom Sederberg, Brigham Young University; the Significant New Researcher Award to Takeo Igarashi, The University of Tokyo; and the Outstanding Service Award to John Fujii, Hewlett Packard Company.



Papers

Monday – Thursday, 31 July – 3 August

Interdisciplinary research achievements in the world's most prestigious presentation of current work in computer graphics and interactive techniques. Academic and industry investigators explain their groundbreaking, provocative, and important new work. After their talks, most authors are available for informal discussion of their work and its implications. Complete list of Papers, pages 22 – 30.



Panels

Monday – Thursday, 31 July – 3 August

Interrogate the experts and disagree with their detractors. Panelists present brief statements about the issues that energize the computer graphics community, debate the topics, and answer questions from the audience. Complete list of Panels, pages 31 – 34.



Sketches

Monday – Thursday, 31 July – 3 August

Interlace with current research findings and speculative directions in all sub-disciplines of computer graphics and interactive techniques. Scientists, artists, designers, engineers, and visual effects innovators present brief, illustrated talks on their current work. Following each sketch presentation, authors answer questions and discuss future directions. Speakers and topics will be available in June: www.siggraph.org/s2006



Educators Program

Wednesday – Thursday, 2– 3 August

Intersect with research, methods, and techniques in every aspect of education at every level. Educators and learners present research, summarize projects, and debate approaches in papers, panels, forums, and quicktakes. Detailed information on the Educators Program: www.siggraph.org/s2006



Research Posters

Sunday – Thursday, 30 July – 3 August

Interpersonal encounters with incremental, preliminary, partial, and innovative insights that are important but don't comprise a full paper by themselves. Posters are displayed throughout the conference week. In scheduled sessions, poster presenters discuss their work and answer questions. Presenters and topics will be available in July: www.siggraph.org/s2006

- Full Conference
- Conference Select
- Exhibits Plus

Presentations



Exhibitor Tech Talks

Interconnect with this year's breakthrough hardware and software. SIGGRAPH 2006 exhibitors demonstrate the systems you need for another year of achievement in computer graphics and interactive techniques. After the sessions, company experts are available for one-on-one conversations about specific questions and applications. Preliminary list of Exhibitor Tech Talks, page 10.



Special Events

Fast-Forward Papers Preview

Sunday, 30 July, 6 – 8 pm

Snapshot overviews of the paper sessions, in which authors give short summaries of their work. It's a fast, fun, and provocative preview of the latest and most significant findings in computer graphics and interactive techniques.

Fashion Show 2006

Monday, 31 July, 10 – 11 pm

A runway show featuring the latest convergence of mobile technology and conceptual couture: streetwear and casual, functional garments of innovative materials, fabrication, and design.

ACM Student Research Competition Presentations

Tuesday, 1 August, 10:30 am – 12:15 pm

Winners of the ACM Student Research Competition at SIGGRAPH 2006 present brief summaries of the work they are displaying in the Posters program.

LEGO Mindstorms: The Next Generation

Wednesday, 2 August, 1 – 6:30 pm

Come see what the world's most innovative robot hobbyists have created with LEGO Mindstorms NXT, the next generation in robot construction kits.

Mitchel Resnick

Massachusetts Institute of Technology, Media Lab



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Special Sessions

Intermixture of advanced design, engineering breakthroughs, and deep interactivity. In Special Sessions, leading explorers demonstrate recent achievements in ocean exploration, vehicle performance and marketing, interactive performance, and character animations.

Plugged In: Creating Emotional Responses Through the Use of Entertainment Technology in Live Performance

Monday, 31 July, 4:45 – 6:45 pm

New technologies are influencing the design of performance spaces, spectacles and events. From fireworks displays and fountains to computer graphics and parades, live performance is evolving. In this session, designers, programmers, and producers reveal the evolution of live performance.

Moderator
Tom Craven

Panelists
Don Dorsey
Dorsey Productions, Inc.

Marc Downie
The OpenEnded Group

David Hynds
Walt Disney World Ride & Show Engineering

Tony Freitas
Wet Design

Vroom Vroom: SIGGRAPH at 500 Horsepower

Tuesday, 1 August, 4:45 – 6:45 pm

Attendees, start your graphics engines! Cars are now communication devices, entertainment centers, and social statements. From video games and movies to research labs and design centers, cars are evolving faster than ever.

Moderator
Phil Patton
The New York Times

Panelists
Tim Milliron
Pixar Animation Studios

Gary Schultz
Pixar Animation Studios

Eddie Sotto
Sotto Studios/LA

Frans von Holzhausen
Mazda, North American Operations

Smart Cities Group, Massachusetts Institute of Technology, Media Lab

20,000 Bits Under the Sea: How Robotics, Visualization, and Scientific Computing Are Changing the Way We Explore, Discover, and Understand Our Oceans

Wednesday, 2 August, 1:45 – 3:45 pm

Oceans cover more than 70% of our planet, yet more is known about outer space. Computer graphics, robotics, user-interface design, visualization, and scientific computing are changing how oceanographers explore the deep.

Panelists
Alan D. Chave
Woods Hole Oceanographic Institution/
Deep Submergence Laboratory

Graham Hawkes
Hawkes Ocean Technologies

Chris Henze
NASA Advanced Supercomputing Division

Chris Hill
Massachusetts Institute of Technology, Department of Earth, Atmospheric, and Planetary Sciences

Sounding Off: How Voice Talents Bring Characters to Life in CG Film

Wednesday, 2 August, 4:45 – 6:45 pm

Voice casting, recording, and animation are an integral part of CG character development. Join this exploration of how major studios and talents use different approaches and techniques to integrate voice performance with computer graphics to create emotionally resonant computer-generated characters and stories.

Panelists
Blue Sky Studios
Pixar Animation Studios
Sony Pictures Animation

action

- Full Conference
- Conference Select
- Exhibits Plus

Experiences



Art Gallery: *Intersections*

Sunday – Thursday, 30 July – 3 August

Intersect with art that explores new territories, crosses traditional boundaries, provokes thought, reveals ideas in innovative ways, and addresses contemporary issues. *Intersections* features 2D, 3D, and 4D wall-hung works, sound art, installation art, art animations, and screen-based work from throughout the world. *Intersections* also includes presentations of theoretical art papers, digital art panels, and art sketches (short presentations). For detailed information on the Art Gallery: *Intersections*, visit: www.siggraph.org/s2006

Electronically Mediated Performances

Enjoy internationally famous performances that utilize technology to create multi-sensory experiences that amaze, amuse, and dazzle the audience on multiple levels. The performances include dance, theater, music, performance art, and hybrid forms that merge various disciplines.

Charles A. Csuri

Explore this extensive retrospective exhibition featuring Csuri's art from 1963 to the present, including his first plotter drawing, real-time animations, newly rediscovered works from the early period, recent examples from the Infinity Series, and more. Csuri is recognized as the father of digital art and computer animation by Smithsonian Magazine and as a leading pioneer of computer animation by the Museum of Modern Art.

Computer Animation Festival



Animation Theaters

Sunday – Thursday, 30 July – 3 August



Electronic Theater

Monday – Wednesday, 31 July – 2 August



Electronic Theater Matinée

Tuesday – Wednesday, 1 – 2 August

Interweave your senses with this year's finest film and video achievements by the world's most creative scientists, entertainers, superstars, vagabonds, studios, and students. The Computer Animation Festival presents selected works in the Electronic Theater (matinée and evening shows) and the Animation Theater (throughout the week).

The Computer Animation Festival jury selected two award winners from 726 entries for exemplary use of computer-generated imagery and animation, and compelling storytelling. For the past two years, the Best in Show recipient has been a nominee for an Academy Award.

SIGGRAPH 2006 Computer Animation Festival award winners:

One Rat Short (Best of Show)

Alex Weil
Charlex
United States

458nm (Special Jury Honors)

Jan Bitzer, Ilija Brunck, Tom Weber
Filmakademie Baden-Württemberg
Germany

For a complete list of Computer Animation Festival accepted work, visit: www.siggraph.org/s2006



Emerging Technologies

Sunday – Thursday, 30 July – 3 August

Interact with the interplay between humans and digital systems. Emerging Technologies demonstrates the future of interactive techniques in scientific visualization, robotics, medicine, biotechnology, music, audio, entertainment, fountains, services for the disabled, graphics, displays, haptics, sensors, gaming, the web, artificial intelligence, visualization, collaborative environments, design, aerospace, the military, and the fusion of technology and art. For detailed information on the Emerging Technologies exhibits, visit: www.siggraph.org/s2006



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Services



Guerilla Studio

Sunday – Thursday, 30 July – 3 August

Interdependent networks of hands-on technologies and creative concepts that embrace collaboration, determination, change, evolution, and innovation as essential elements in the birth of new modes of thinking and creating. The Guerilla Studio facilitates the realized, and sometimes unrealized, dreams of SIGGRAPH 2006 attendees. In 2D, 3D, 4D, and n-dimensional media.



Reception

Seaport World Trade Center
Wednesday, 2 August, 8 – 10 pm

Intermingle with the international computer graphics community in its biggest social event of the year. Bring your business cards. SIGGRAPH 2006 provides food, beverages, and a beautiful harborside location that's perfect for social networking.



The Teapot as Object and Icon

Sunday – Thursday, 30 July – 3 August

Intertwingle with real teapots, virtual teapots, and teapot-inspired images that showcase the long association of the teapot with computer graphics, art, and Boston. The teapot exhibit includes juried and curated work by computer scientists, artists, and designers from around the world.



Birds of a Feather

Interconnect with others who share your interests, goals, technologies, environments, or backgrounds. Questions? Review the Birds of a Feather FAQs at: www.siggraph.org/s2006

To schedule a Birds of a Feather session prior to arrival, fill out the Meeting Space Request Form online.



Get Involved

Tuesday, 1 August, 5 – 6:30 pm

Interview the volunteers who organize the annual SIGGRAPH conference and discover how you can contribute your expertise and energy. All attendees, exhibitors, and presenters are invited. All questions and comments are welcome.



International Resources

Sunday – Thursday, 30 July – 3 August

Intercontinental collaboration and socializing with attendees from all over the world. The International Center connects colleagues and friends worldwide; offers informal translation services; provides space for meetings, talks, and demonstrations; and organizes guided bilingual tours of several SIGGRAPH 2006 programs. See page 11 for the International Committee listing.



Job Fair

Tuesday – Thursday, 1 – 3 August
10 am – 4 pm

The SIGGRAPH Conference Job Fair returns in 2006 with extended hours and expanded offerings. The Job Fair is produced by CreativeHeads.net, The Job Board for professionals in the video game, animation, VFX, TV, film, and software tools and technology industries.

All registered SIGGRAPH 2006 attendees are welcome to attend the Job Fair at no additional cost. For details, see page 36.

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JOBS FOR THE RIGHT BRAINS



Pathfinders

Sunday – Thursday, 30 July – 3 August

Maximize your visit to SIGGRAPH 2006. At the Pathfinders booth, veteran attendees provide free, friendly advice on how to find everything that's important to you. If you have questions before the conference, have feedback to offer, or would like to volunteer a couple hours of your time to help us out, please send email to: pathfinders@siggraph.org

national

Exhibition

Over 250 of the world's leading companies from five continents in computer graphics and interactive techniques will be available at only one time and place: SIGGRAPH 2006 in Boston.

Attendees This is your exclusive opportunity to learn about all the products and services you need for another year of creative achievement in one place. Try the latest systems, talk with the people who developed them, and get all the information you need to make budget and purchase decisions. For the most complete list of SIGGRAPH 2006 exhibitors, visit: www.siggraph.org/s2006

Exhibitors This is your only annual opportunity to demonstrate your products and services in the world's only trade show devoted exclusively to the global market for computer graphics and interactive techniques.



Increase Your Visibility – Become a SIGGRAPH 2006 Sponsor.
SIGGRAPH 2006 sponsorship is the best way to add muscle to your message.

To purchase exhibition space or learn about our customized sponsorship opportunities for SIGGRAPH 2006, call or write:

SIGGRAPH 2006 Exhibition Management
Hall-Erickson, Inc.
98 East Naperville Road
Westmont, Illinois 60559 USA
exhibits@siggraph.org

+1.630.434.7779
+1.630.434.1216 fax

Important Notice

Registered attendees under the age of 16 must be accompanied by an adult at all times throughout the Boston Convention & Exhibition Center, except for the Exhibition, where children under 16 are not permitted. Age verification is required for the Exhibition.

Exhibitors

As of 31 March 2006

- 1 Beyond, Inc.
3D Systems, Inc.
3D Training Institute (3DTI)
3DConnexion
3Q/3dMD
A K Peters, Ltd.
Academic Superstore LP
Academy of Art University
Act-3D, B.V.
Addison-Wesley-New Riders Publishing
Addison-Wesley Pro/PeachPit Press
Adobe Systems Incorporated
AJA Video Systems
Akasaka Natural Vision Research Center
AMAX Information Technologies
AMD Micro Devices, Inc.
American Paper Optics, Inc.
Anark Corporation
Andersson Technologies LLC
Animation Magazine Inc.
Anthro Corporation
Anzovin Studio
Artbeats, Inc.
ASC-American Cinematographer
ATI Technologies Inc.
auto.des.sys, Inc.
Autodesk, Inc.
Avid Technology, Inc.
B&H Photo-Video
Ballistic Media Pty. Ltd.
Bitboys Oy
Blue Sky Studios, Inc.
BlueArc Corporation
BOXX Technologies, Inc.
BrightSide Technologies Inc.
CADD Edge, Inc.
cebas Computer GmbH
Center for Computation & Technology at
Louisiana State University
Ciprico, Inc.
Cogswell Polytechnical College
Computer Graphics World
Corel Corporation
Create Magazine
Crittterpix
Cycling '74
DataDirect Networks Inc.
DAZ Productions, Inc.
Digital Artist Management Inc/DAM
Consultants, Inc.
Digital Media Arts College
Digital Media Professional Inc.
Digital Video Systems GmbH
Dimension 3D Printing
DreamWorks Animation SKG
Drexel University
e frontier, Inc.
Education Management Corporation/
The Art Institutes
Electronic Arts Inc.
e-on software, inc.
eyeon Software Inc.
Fiatlux Corporation/KGT
Florida Interactive Entertainment Academy
GenArts, Inc.
Gibbs College
Gnomon, Inc.
Google
Hash, Inc.
Hewlett-Packard Development
Company, L.P.
IdN Magazine
IDT Entertainment
IEEE Computer Society
Immersion Corporation
Immersive Media Corp.
InSpeck Inc.
IntegrityWare, Inc.
International Academy of Design &
Technology
InterSense
Isilon Systems, Inc.
John Wiley & Sons, Inc.
JourneyEd.com
LAIKA Entertainment
Lucas Arts Entertainment Co.
Massive Software
MAXON Computer Inc.
MediaLab
Mercury Computer Systems, Inc.
Meta Motion
Mitsubishi Electric Research Laboratories
Mitsue-Links Co., Ltd.
Morgan Kaufmann Publishers
Motion Analysis Corporation
MOVA LLC
National Animation & Design Centre
NEC Display Solutions of America Inc.
New York University - CADA
NewTek, Inc.
Nexstar
Next Limit Technologies
NVIDIA Corporation
Ohio University School of
Telecommunications
Okino Computer Graphics, Inc.
Orad Hi Tec Systems Ltd.
P.I. Engineering, Inc.
PipelineFx, LLC
Pixar Animation Studios
Pixologic, Inc.
PNY Technologies, Inc.
Point Grey Research, Inc.
Post Magazine
(COP Communications, Inc.)
Primedia Business Magazines & Media
Purdue University, Department of
Computer Graphics Technology
Radical Entertainment Inc.
Reallusion Inc.
REALVIZ S.A.
Rhythm & Hues Studios
Ringling School of Art and Design
Robert McNeel & Associates
Rochester Institute of Technology
Savannah College of Art and Design
Side Effects Software Inc.
Solid Modeling Solutions
Solidscape, Inc.
SolidWorks Corporation – Dassault
Systemes
Sony Pictures Imageworks Inc.
SpheronVR AG
Spine3D
Springer
Stash Media Inc.
Stratasys Inc.
Sybex, An Imprint of Wiley
SyFlex LLC
Tech Data Corporation
TechViz
Texas Memory Systems
The Center for Digital Imaging Arts at
Boston University
The CGAL Project
The Cleveland Institute of Art
The Guildhall at SMU
The MIT Press
The Orphanage Inc.
The3DShop.com
Thomson Course Technology
Tobii Technology AB
Toon Boom Animation, Inc.
Total Immersion
University of Massachusetts Dartmouth
Valenciennes Digital/Superinfocom
Vancouver Film School
Virtools SA
VisMasters
Visual Media, LLC
Wacom Technology Co.
Walt Disney Animation
Web3D Consortium, Inc.
Westbridge Film School
Weta Digital Ltd.
Wolfram Research, Inc.
wondertouch, LLC
Worldwide FX
Xerox Corporation
Yorkshire Forward
Z Corporation
Zygotte Media Group, Inc.

Exhibitor Tech Talks

Interconnect with this year's breakthrough hardware and software. SIGGRAPH 2006 exhibitors demonstrate the systems you need for another year of achievement in computer graphics and interactive techniques. After the sessions, company experts are available for one-on-one conversations about specific questions and applications.

Training for Careers in Animation and Technology

Vancouver Film School

Wednesday, 2 August, 12:30 – 2:30 pm

Interested in a career in the world of animation? This session includes a screening of outstanding student work, a comprehensive overview of the Vancouver Film School's classical & 3D animation programs, admissions requirements, discussion of career opportunities, and a question-and-answer period.

X3D: The 3D Solution for Web, Documents, and Real-Time Applications

Web3D Consortium

Wednesday, 2 August, 3:30 – 5:30 pm

The X3D standard has evolved over 10 years while other 3D standards have come and gone. X3D is growing with content and applications from a variety of sectors and across a variety of hardware platforms. It is turning out to be not only viable, but it also has a vibrant, dynamic, and innovative community and application developers who see this standard as the ideal format for archivable, real-time 3D graphics. See the latest real-world applications and content, and find out just how useful X3D can be for your 3D graphic needs.

Exhibitor Sessions

NVIDIA Next-Generation Effects

Wednesday, 2 August, 9:45 – 10:30 am

With Windows Vista, developers have access to unprecedented flexibility and processing power. This presentation shows how these new capabilities can be put to good use.

Physics on NVIDIA GPUs

Wednesday, 2 August, 11 am – noon

Havok FX leverages state-of-the-art software and hardware technology from NVIDIA to extend the capabilities of NVIDIA GPUs and SLI multi-GPU systems to include physics processing for massive real-time effects. In this presentation, NVIDIA and Havok engineers describe how Havok FX utilizes NVIDIA technology to simulate and render thousands of particles and rigid bodies in games. Live real-time demos demonstrate the high performance available with current GPUs and provide a look into the future of physics processing on NVIDIA GPUs.

State-of-the-Art Cross-Platform Shader Development with FX Composer 2

Wednesday, 2 August, 1 – 2 pm

Now supporting both OpenGL and DirectX, FX Composer 2 provides a state-of-the-art integrated development environment for shader authoring in CG and HLSL through COLLADA FX. Learn all about FX Composer 2's features, including shader profiling support, artist-friendly tweakables, scripting support, custom plug-in architecture, and much more.

NVIDIA Demo Team

Wednesday, 2 August, 2:15 – 3 pm

NVIDIA's Demo Team presents techniques and tricks used in the most recent demo applications.

Optimize Your GPU with the Latest NVIDIA Performance Tools

Wednesday, 2 August, 3:30 – 4:45 pm

This talk showcases NVIDIA's latest suite of GPU performance-analysis tools for OpenGL and DirectX, including NVPerfKit and NVShaderPerf. Learn how to use NVPerfKit to find and remove bottlenecks with NVPerfHUD, access powerful GPU performance counters with NVPerfSDK, and identify OpenGL API usage and performance errors with GLExpert. Handheld developers will get a brief look at NVPerfHUD ES, a new performance tool for handheld GPUs. Also, learn how to tune your fragment programs using NVShaderPerf.

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International Resources

In the International Center, the multi-lingual International Resources Committee answers attendee questions, hosts presentations for attendees from specific countries and regions, offers space for talks and demonstrations, and provides informal translation services.

International Committee

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Kirsten Cater

English

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Matt Adcock

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twingle

Co-Located Events

The annual SIGGRAPH conference is expanding the number and breadth of co-located workshops and small conferences. Four events are co-located with SIGGRAPH 2006:

APGV 06: Third Symposium on Applied Perception in Graphics and Visualization

28 - 30 July 2006
Hyatt Regency Boston
Boston, Massachusetts USA

Research in computer graphics and visualization has great potential to benefit from, and contribute to, research in perception. Since 2004, this symposium has brought together researchers from the fields of perception, graphics, and visualization to facilitate a wider exchange of ideas. Our goals are 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.

For more information and registration:
<http://www.apgv.org/>

International Workshop on Volume Graphics

30 - 31 July 2006
Boston Park Plaza Hotel
Boston, Massachusetts USA

Following successful workshops in Swansea (1999), Stony Brook (2001), Tokyo (2003), and Stony Brook again (2005), the 5th International Workshop on Volume Graphics, VG06, will take place in Boston in July 2006. VG06 brings together academic and industry researchers who are working, or wish to work, on volume graphics (modeling, processing, and rendering data that are typically acquired through analytical methods, medical scanners, computational simulations, or statistical measurements). Volume graphics is capable of modeling solid as well as amorphous objects, and interiors as well as surfaces, and it synthesizes graphical

images in a true 3D manner. The workshop will continue to explore the potential of volume-based techniques beyond the scope of volume visualization as it is currently practiced.

For more information and registration:
<http://vg.swan.ac.uk/vg06/>

Sandbox: An ACM Video Game Symposium

29 - 30 July 2006
Boston Marriott Copley Place
Boston, Massachusetts USA

The Sandbox symposium includes keynotes, panels, papers, and, a Hot Games 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. How can we advance the state of technology while ensuring that the medium flourishes? What role do independent developers play in maintaining diversity and creativity in this medium? How do video games affect societies and individuals?

For more information and registration:
<http://sandboxsymposium.org/>

Symposium on Point-Based Graphics 2006

29 - 30 July 2006
Boston Park Plaza Hotel
Boston, Massachusetts USA

The IEEE/Eurographics Symposium on Point-Based Graphics (PBG) is a forum for presenting new results related to the use of point-based primitives in modeling, rendering, data acquisition, simulation, geometry, and graphics hardware. Building on the successful PBG 2004 in Zürich and PBG 2005 in Stony Brook, the next symposium is co-located with SIGGRAPH 2006 in Boston.

For more information and registration:
<http://graphics.ethz.ch/PBG06/>

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

Alyn Rockwood
ACM SIGGRAPH Vice President
alyn_rockwood@siggraph.org

Call for Volunteers

ACM SIGGRAPH relies heavily on volunteers to plan and produce the premier international conference on computer graphics and interactive techniques. Volunteer opportunities for this vibrant event include: future conference chairs, SIGGRAPH 2007 sub-committee members, SIGGRAPH 2008 program chairs, and additional on-site volunteers for most years. Explore how you can contribute your ideas, energy, and expertise at: www.siggraph.org/volunteering

Conference Schedule

Sunday, 30 July

8:30 am – 12:15 pm

- Course 7: Beyond One Perspective: Using Video Camera Arrays for Graphics
- Course 8: An Interactive Introduction to OpenGL Programming
- Course 9: The Art of Open Season: Traditional 2D Styling With Today's Bells and Whistles

8:30 am – 5:30 pm

- Course 1: Discrete Differential Geometry: An Applied Introduction
- Course 2: Interactive Shape Editing
- Course 3: GPU Shading and Rendering
- Course 4: State of the Art in Interactive Ray Tracing
- Course 5: High-Dynamic-Range Imaging: Theory and Applications
- Course 6: Illustrative Visualization for Medicine and Science
- Research Posters

1 – 6 pm

- Animation Theaters
- Art Gallery: *Intersections*
- Emerging Technologies
- Guerilla Studio

1:45 – 5:30 pm

- Course 10: Procedural Modeling of Urban Environments
- Course 11: "The Chronicles of Narnia": The Lion, The Crowds, and Rhythm & Hues
- Course 12: Digital Modeling of the Appearance of Materials

6 – 8 pm

- Special Event: Fast-Forward Papers Preview

Monday, 31 July

8:30 – 10:15 am

- Papers: Sampling and Ray Tracing
- Papers: Image Processing

8:30 am – 12:15 pm

- Course 13: Surface Modeling and Parameterization With Manifolds
- Course 14: Fluid Simulation
- Course 15: Computational Photography
- Course 16: OpenKODE: An Open Mobile Media Development Environment
- Course 17: Physically Based Reflectance for Games
- Course 18: An Introduction to Sketch-Based Interfaces

8:30 am – 5:30 pm

- Research Posters

9 am – 6 pm

- Animation Theaters
- Art Gallery: *Intersections*
- Emerging Technologies
- Guerilla Studio

10:30 am – 12:15 pm

- Papers: Shape Matching and Symmetry
- Papers: Shape Modeling and Textures
- Sketches

1:15 – 3:15 pm

- Keynote Address/Awards

3:45 – 5:30 pm

- Course 19: Spatial Augmented Reality
- Course 20: QTKit: A Modern Framework for Multimedia Applications
- Course 21: Taxonomy of Digital Creatures: Defining Character Development Techniques Based Upon Scope of Use
- Course 22: Résumés and Demo Reels: If Yours Aren't Working Neither Are You!
- Course 23: The Web as a Procedural Sketchbook
- Panel: Digital Rights, Digital Restrictions
- Sketches

3:45 – 6 pm

- Papers: Image Manipulation

4:45 – 6:45 pm

- Special Session: Plugged In: Creating Emotional Responses Through the Use of Entertainment Technology in Live Performance

7 – 9 pm

- Electronic Theater

9 pm – 2 am

- Professional and Student Chapter's Party

Conference Schedule

Tuesday, 1 August

8:30 – 10:15 am

- Papers: Surfaces

8:30 am – 12:15 pm

- Course 28: Recreational Computer Graphics

8:30 am – 5:30 pm

- Course 24: Exploiting Perception in High-Fidelity Virtual Environments
- Course 25: RenderMan for Everyone
- Course 26: Advanced Real-Time Rendering in 3D Graphics and Games
- Course 27: The Art of Story Telling
- Research Posters
- Sketches

9 am – 6 pm

- Animation Theaters
- Art Gallery: *Intersections*
- Emerging Technologies
- Guerilla Studio

9:30 am – 6 pm

- Exhibition & Exhibitor Tech Talks

10 am – 4 pm

- Job Fair

10:30 am – 12:15 pm

- Papers: HDR and Systems
- Panel: Is a Career in Computer Graphics Possible?
Part 1: Skills and Training
- ACM Student Research Competition Presentations

1:30 – 3:30 pm

- Electronic Theater Matinée

1:45 – 3:30 pm

- Papers: Appearance Representation
- Panel: So You Want to Create Content: Licenses, Copyrights, and Other Things to Think About

1:45 – 5:30 pm

- Course 34: The Invisible Actor
- Course 35: Developing Mobile 3D Applications With OpenGL ES and M3G
- Course 36: Spatial Displays and Computer Graphics

3:45 – 5:30 pm

- Papers: Matting & Deblurring
- Panel: Ethics in Image Manipulation

4:45 – 6:45 pm

- Special Session: Vrooom Vrooom: SIGGRAPH at 500 Horsepower

5 – 6:30 pm

- Get Involved

7 – 9 pm

- Electronic Theater

Wednesday, 2 August

8 – 8:15 am

- Educators Program: Ramp In

8:30 – 9:30 am

- Educators Program Panel
- Educators Program Papers

8:30 – 10:15 am

- Papers: Fluids
- Papers: Image Collections

8:30 am – 5:30 pm

- Course 29: Geometric Modeling Based on Triangle Meshes
- Course 30: Performance-Driven Facial Animation
- Research Posters
- Sketches

9 am – 6 pm

- Animation Theaters
- Art Gallery: *Intersections*
- Emerging Technologies
- Guerilla Studio

9:30 – 10 am

- Educators Program Paper

9:30 – 10:30 am

- Educators Program Panel

9:30 am – 6 pm

- Exhibition & Exhibitor Tech Talks

10 – 10:30 am

- Educators Program Quicktakes

10 am – 4 pm

- Job Fair

10:30 – 11 am

- Educators Program Paper

10:30 – 11:30 am

- Educators Program Panel

10:30 am – 12:15 pm

- Papers: Motion Capture
- Papers: Image Capture
- Panel: Video Games: Content and Responsibility

11 am – noon

- Educators Program Panel

11:30 am – noon

- Educators Program Paper

1 – 2 pm

- Educators Program Panel

1 – 6:30 pm

- LEGO Mindstorms

1:30 – 3:30 pm

- Electronic Theater Matinée

1:45 – 3:45 pm

- Special Session: 20,000 Bits Under the Sea: How Robotics, Visualization, and Scientific Computing Are Changing the Way We Explore, Discover, and Understand Our Oceans

Wednesday, 2 August (continued)

2 – 3 pm

- Educators Program Papers

3 – 3:30 pm

- Educators Program Panel

3 – 3:45 pm

- Educators Program Quicktakes

3:30 – 5 pm

- Educators Program Papers

3:45 – 5:30 pm

- Papers: Precomputed Transfer
- Panel: Is a Career in Computer Graphics Possible?
Part 2: Dedication and Expectation

4 – 5:30 pm

- Educators Program Panel

4:45 – 6:45 pm

- Special Session: Sounding Off: How Voice Talents Bring Characters to Life in CG Film

5 – 5:30 pm

- Educators Program Quicktakes

5:30 – 6 pm

- Educators Program Paper

7 – 9 pm

- Electronic Theater

8 – 10 pm

- Reception: Seaport World Trade Center

Thursday, 3 August

8 – 8:30 am

- Educators Program Papers

8 - 9 am

- Educators Program Quicktake Panel

8:30 – 9 am

- Educators Program Quicktakes

8:30 – 10:15 am

- Papers: Appearance Modeling
- Papers: Meshes

8:30 am – noon

- Research Posters

8:30 am – 5:30 pm

- Sketches

9 am – noon

- Educators Program Papers

9 am – 5 pm

- Animation Theaters
- Art Gallery: Intersections
- Emerging Technologies
- Guerilla Studio

9:30 am – 3:30 pm

- Exhibition & Exhibitor Tech Talks

10 am – 4 pm

- Job Fair

10:30 – 11:30 am

- Educators Program Panel

10:30 am – 12:15 pm

- Papers: Light Transport
- Papers: Shape Deformation

1 – 2 pm

- Educators Program Forum

1 – 3:30 pm

- Educators Program Papers

1:45 – 3:30 pm

- Papers: Numerical and Geometric Algorithms and Crowds
- Papers: Animation

2 – 2:30 pm

- Educators Program Paper

2:30 – 3:30 pm

- Educators Program Forum

3:30 – 4:15 pm

- ACM Student Research Competition Recognition

3:45 – 5:30 pm

- Papers: Non-Photorealistic Rendering

4:15 – 5 pm

- Educators Program Ramp Out

Courses

interdisciplinary instruction by experts from academia and industry who demonstrate the latest techniques, analyze complex algorithms and their implementations, and accelerate understanding of the core concepts in computer graphics and interactive techniques. Courses are presented as brief tutorials, half-day sessions, and intensive full-day sessions.



**For detailed information
on all SIGGRAPH 2006 Courses, visit:**
www.siggraph.org/s2006

Full Conference registration allows attendees access to all SIGGRAPH 2006 Courses. All the Course Notes are on the Full Conference DVD-ROM that Full Conference attendees receive with their registration. For additional information on the level of experience and education required to make best use of the instruction offered in each course, see the SIGGRAPH 2006 web site: www.siggraph.org/s2006

Seating in Courses is on a first-come, first-served basis. Please be sure to arrive early for the Courses you wish to attend.

Sunday, 30 July

1

Discrete Differential Geometry: An Applied Introduction

Sunday, Full-Day, 8:30 am - 5:30 pm

LEVEL: ADVANCED

An introduction to fundamentals of discrete differential geometry (DDG), a nascent area of computational science with exciting simulation and geometry processing applications. Lectures discuss continuous and discrete geometry in the context of cloth, shell, and fluid simulation as well as remeshing and parameterization problems.

Co-Organizers

Eitan Grinspun

Columbia University

Mathieu Desbrun

California Institute of Technology

2

Interactive Shape Editing

Sunday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

The state of the art in digital modeling techniques, both in commercial software and academic research. The goal of this course is to give attendees an understanding of the big open questions and the skills to engineer recent research in interactive shape-modeling applications.

Organizer

Marc Alexa

Technische Universität Berlin

3

GPU Shading and Rendering

Sunday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

Programmable graphics hardware has found its way into almost every PC and game console sold today. This course features the latest exciting developments in shading hardware, a practical comparison of shading languages, and a glimpse of hardware shading returning to its production rendering roots.

Organizer

Marc Olano

University of Maryland, Baltimore County

Sunday, 30 July

4

State of the Art in Interactive Ray Tracing

Sunday, Full-Day, 8:30 am - 5:30 pm

LEVEL: ADVANCED

Recent improvements in computer hardware have allowed ray tracing to be used in some interactive applications. The trends in architecture and expansions of geometric model should increase the use of interactive ray tracing. This course presents recent and often not-yet published work on interactive ray tracing.

Organizer

Peter Shirley

University of Utah

Philipp Slusallek

Universität des Saarlandes

5

High-Dynamic-Range Imaging: Theory and Applications

Sunday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

New techniques in capturing, representing, processing, and displaying high-dynamic-range (HDR) images. HDR imagery represents the full range of light in the real world, which enables marked improvements in visual fidelity and photorealism. Application areas include lighting, compositing, film, game design, and display hardware.

Co-Organizers

Paul Debevec

USC Centers for Creative Technologies

Erik Reinhard

University of Bristol & University of Central Florida

6

Illustrative Visualization for Medicine and Science

Sunday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

Research and recent development in computer-generated illustration techniques within non-photorealistic rendering. The course concentrates specifically on illustration methods for computer-generated technical, scientific, medical, and interactive illustrations of both surface and volumetric data. It also presents the perspective of two medical illustrators on computerized illustration.

Co-Organizers

David S. Ebert

Purdue University

Mario Costa Sousa

University of Calgary

Sunday, 30 July

7

Beyond One Perspective: Using Video Camera Arrays for Graphics

Sunday, Half Day, 8:30 am - 12:15 pm
LEVEL: INTERMEDIATE

Capture, analysis, and rendering of dynamic, real-world scenes and phenomena using multiple video cameras. This course describes hardware, calibration, and algorithms. Topics include modeling dynamic geometry and volumetric phenomena (such as smoke and fire); high-quality, real-time, video-view interpolation; and spatio-temporal view interpolation.

Co-Organizers
Marcus Magnor
Technische Universität Braunschweig

Bennett Wilburn
Microsoft Research Asia

8

An Interactive Introduction to OpenGL Programming

Sunday, Half Day, 8:30 am - 12:15 pm
LEVEL: BEGINNING

This course provides the knowledge that a novice OpenGL programmer needs to author interactive, 3D graphics applications using OpenGL. It covers fundamental topics such as modeling, lighting, depth buffering, and texture mapping, and introduces advanced topics such as using vertex and fragment programs.

Organizer
Ed Angel
University of New Mexico

9

The Art of Open Season: Traditional 2D Styling With Today's Bells and Whistles

Sunday, Half Day, 8:30 am - 12:15 pm
LEVEL: BEGINNING

A detailed behind-the-scenes view of how a team of digital artists and technicians can work closely with a team of talented traditional storytellers and artists to create a feature animated film. The course demonstrates how the most advanced technology and tools were developed from concept to screen.

Organizer
Sande Scoredos
Sony Pictures Imageworks

Sunday, 30 July

10

Procedural Modeling of Urban Environments

Sunday, Half Day, 1:45 - 5:30 pm
LEVEL: INTERMEDIATE

Procedural modeling techniques for creation of highly detailed three-dimensional urban models in computer games and movies. The course covers problems associated with modeling street layouts, land-use systems, and architecture. It combines new research from academia and state-of-the-art industrial modeling practices.

Co-Organizers
Ben Watson
North Carolina State University

Peter Wonka
Arizona State University

11

"The Chronicles of Narnia": The Lion, The Crowds, and Rhythm & Hues

Sunday, Half Day, 1:45 - 5:30 pm
LEVEL: INTERMEDIATE

For its work on "The Chronicles of Narnia," Rhythm & Hues created a new work flow, new tools, and new procedures. This course offers a detailed look at the production, from Aslan to the crowds of mythological creatures in the battle. Detailed topics include proprietary software, pipeline, rigging, fur, dynamics, crowds, and more.

Organizer
Brad Hiebert
Rhythm & Hues Studios

12

Digital Modeling of the Appearance of Materials

Sunday, Half Day, 1:45 - 5:30 pm
LEVEL: BEGINNING

Realistic computer graphics rendering requires modeling the appearance of physical materials. This course covers the range of techniques for specifying materials, including classifying physical materials by observation, basic mathematical representation, modeling material appearance change over time, and integrating material models into rendering systems.

Organizer
Holly Rushmeier
Yale University

Monday, 31 July

13

Surface Modeling and Parameterization With Manifolds

Monday, Half Day, 8:30 am - 12:15 pm
LEVEL: INTERMEDIATE

What do configuration spaces of animation skeletons, a subdivision surface, and a panorama have in common? All of these are examples of manifolds. The goal of this course is to present an overview of manifold constructions that are useful for graphics applications, with a focus on two-dimensional manifolds (surfaces).

Organizer
Cindy Grimm
Washington University in St. Louis

14

Fluid Simulation

Monday, Half Day, 8:30 am - 12:15 pm
LEVEL: ADVANCED

Animating fluids like water, smoke, and fire by physics-based simulation is increasingly important in visual effects and is starting to make an impact in real-time games. This course goes from the basics of 3D fluid flow to the state of the art in graphics. Attendees will learn the core concepts of fluid flow, cutting-edge techniques, and implementation details. Slides, notes, and (where possible) example code will be provided.

Organizer
Robert Bridson
The University of British Columbia

15

Computational Photography

Monday, Half Day, 8:30 am - 12:15 pm
LEVEL: INTERMEDIATE

Computational methods for overcoming the traditional limitations of a camera and enabling novel imaging applications. The course provides a practical guide to topics in image capture and manipulation methods for generating compelling pictures for computer graphics and for extracting scene properties for computer vision, with several examples.

Co-Organizers
Ramesh Raskar
Mitsubishi Electric Research Laboratories (MERL)

Jack Tumblin
Northwestern University

Monday, 31 July

16

OpenKODE: An Open Mobile Media Development Environment

Monday, Half Day, 8:30 am - 12:15 pm
LEVEL: INTERMEDIATE

OpenKODE is an open, cross-platform, royalty-free development environment for mobile media. This cohesive framework includes APIs for 3D graphics, scalable vector graphics, video, audio, and an open digital-asset schema designed for interactive applications. This course provides an overview of each of OpenKODE's constituent technologies.

Organizer
Randi Rost
3DLabs

17

Physically Based Reflectance for Games

Monday, Half Day, 8:30 am - 12:15 pm
LEVEL: INTERMEDIATE

How to use the physical principles of reflectance to increase game realism while acknowledging real-world production issues such as performance and ease of content creation. In this course, game developers learn how to incorporate realistic reflectance in their games, and graphics researchers learn how to evaluate the applicability of their research to game development.

Organizer
Nathaniel Hoffman
Naughty Dog, Inc.

18

An Introduction to Sketch-Based Interfaces

Monday, Half Day, 8:30 am - 12:15 pm
LEVEL: BEGINNING

Sketch-based interfaces are a natural, pencil-and-paper-like approach to interacting with a variety of applications, including conceptual modeling, animation, and note-taking systems. This course offers an in-depth discussion of sketch-based interface design, ranging from simple gestural commands to complex sketch-understanding systems. Attendees will learn how these interfaces are designed and how to develop their own.

Organizer
Joseph LaViola
Brown University

Monday, 31 July

19

Spatial Augmented Reality

Monday, Tutorial, 3:45 - 5:30 pm

LEVEL: INTERMEDIATE

A survey of the latest techniques for augmented reality, which go beyond conventional head-mounted displays. The tutorial introduces prototypes, explains rendering and calibration algorithms, discusses case studies, and presents practical experience. Attendees learn about new applications enabled by current augmented-reality techniques that combine the real and virtual worlds in art, science, education, and industry.

Co-Organizers

Oliver Bimber

Bauhaus-Universität Weimar

Ramesh Raskar

Mitsubishi Electric Research Laboratories (MERL)

20

QTKit: A Modern Framework for Multimedia Applications

Monday, Tutorial, 3:45 - 5:30 pm

LEVEL: BEGINNING

An in-depth look at QTKit, one of Apple's newest media technologies, presented by its chief architect and one of its key third-party adopters. Attendees learn how to harness the power and flexibility of QuickTime from their Cocoa applications.

Organizer

Tim Monroe

Apple Computer, Inc.

21

Taxonomy of Digital Creatures: Defining Character Development Techniques Based Upon Scope of Use

Monday, Tutorial, 3:45 - 5:30 pm

LEVEL: BEGINNING

Using computer graphics to develop digital creatures from concept to realization requires a series of decisions based on how the character is expected to be seen. This course focuses on how to use a creature's scope of appearance to effectively define the best use of modeling, rigging, look development, and animation techniques.

Organizer

Tim McLaughlin

Industrial Light & Magic

Monday, 31 July

22

Résumés and Demo Reels: If Yours Aren't Working, Neither Are You!

Monday, Tutorial, 3:45 - 5:30 pm

LEVEL: BEGINNING

Learn what it takes to get a job in the computer graphics field. A top career coach and recruiter reveals the secrets of how to create an irresistible résumé and showcase your talent in a demo reel to get the job you want. Sample résumés and demo reels are included.

Organizer

Pamela Kleibrink Thompson

Ideas to Go

23

The Web as a Procedural Sketchbook

Monday, Tutorial, 3:45 - 5:30 pm

LEVEL: INTERMEDIATE

Ideas that effectively integrate new technology with new visual design can be quickly developed and published on the web, using only Java applets. With a selection of applets as illustrative examples, this course teaches, step by step, how to rapidly develop and publish visual and procedural ideas (animation, modeling, design, gameplay paradigms, etc.) on the web. The course provides source code for an extensive set of libraries that enable rapid development of such applets.

Organizer

Ken Perlin

New York University, Media Research Lab

Tuesday, 1 August

24

Exploiting Perception in High-Fidelity Virtual Environments

Tuesday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

This course introduces high-fidelity virtual environments and explains the key components required to build compelling environments. Then it details perceptually inspired techniques that facilitate high-fidelity rendering, collaboration, and complex interaction in these virtual environments. Particular emphasis is placed on real applications, with several live demonstrations.

Organizer

Mashhuda Glencross

The University of Manchester

Tuesday, 1 August

25

RenderMan for Everyone

Tuesday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

An in-depth three-part course designed to expand knowledge of the RiSpec. The first part is an introduction to RenderMan. The second is a detailed look into the RiSpec. The third presents tips and tricks used in production.

Organizer
Rudy Cortes
Walt Disney Feature Animation

26

Advanced Real-Time Rendering in 3D Graphics and Games

Tuesday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

The amazing power of the latest GPUs has spurred a real osmosis of ideas between the game developers and state-of-the-art graphics research. This course presents innovative real-time algorithms from award-winning game engines and ground-breaking 3D rendering that are pushing the visual boundaries and interactive experience of complex virtual worlds. The techniques are applicable in real-time and offline domains. Attendees will learn several innovative highly optimized algorithms in various areas of real-time rendering.

Organizer
Natalya Tatarchuk
ATI Research, Inc.

27

The Art of Story Telling

Tuesday, Full-Day, 8:30 am - 5:30 pm

LEVEL: BEGINNING

Four of Hollywood's screenwriter gurus teach story structure, how to create believable characters, and the techniques that make stories connect with an audience on an emotional level.

Organizer
Ted Burge
Walt Disney Feature Animation

Tuesday, 1 August

28

Recreational Computer Graphics

Tuesday, Half-Day, 8:30 am - 12:15 pm

LEVEL: BEGINNING

With computer graphics, we can expand our imaginations, explore the natural world, and create stunning shapes, images, textures, and patterns. This course looks at a variety of different topics that show how graphics can help us enjoy the wonder and beauty of the world we live in.

Organizer and Lecturer
Andrew Glassner
Coyote Wind Studios

Wednesday, 2 August

29

Geometric Modeling Based on Triangle Meshes

Wednesday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

This course is designed to cover the entire geometry processing pipeline based on triangle meshes. Speakers present the latest concepts for mesh generation and mesh repair; geometry and topology optimizations like mesh smoothing, decimation, and remeshing; and parametrization, segmentation, and shape editing. In addition to describing and discussing the related algorithms, the course provides valuable implementation hints and source code for most of the covered topics.

Co-Organizers
Mario Botsch
Mark Pauly
Eidgenössische Technische Hochschule Zürich

30

Performance-Driven Facial Animation

Wednesday, Full-Day, 8:30 am - 5:30 pm

LEVEL: INTERMEDIATE

Performance-driven facial animation (PDFA) has recently been adopted in a number of important entertainment projects. This course describes tracking, cross mapping, and model derivation technologies used in PDFA, and summarizes unresolved issues. Leading researchers and industry specialists present current and forthcoming motion-capture techniques, cross-mapping technologies, and application case studies from important recent and current projects.

Organizer
Fred Pighin
Industrial Light & Magic

Papers

interdisciplinary research

achievements in the world's most prestigious presentation of current work in computer graphics and interactive techniques. Academic and industry investigators explain their groundbreaking, provocative, and important new work. After their talks, most authors are available for informal discussion of their research and its implications.



**For detailed information
on all SIGGRAPH 2006 Papers, visit:**
www.siggraph.org/s2006

Full Conference registration allows attendees access to all SIGGRAPH 2006 Papers. Seating is on a first-come, first-served basis. Please be sure to arrive early for the Papers sessions you wish to attend.



Special Event

Fast-Forward Papers Preview
Sunday, 30 July, 6 – 8 pm

Snapshot overviews of the paper sessions, in which authors give short summaries of their work. It's a fast, fun, and provocative preview of the latest and most significant findings in computer graphics and interactive techniques.

Monday, 31 July

8:30 – 10:15 am

Sampling and Ray Tracing

Session Chair: Kavita Bala,
Cornell University

Ray Tracing Animated Scenes Using Coherent Grid Traversal

Ingo Wald
Thiago Ize
Andrew Kensler
Aaron Knoll
Steven G. Parker
Scientific Computing and Imaging Institute
University of Utah

Guided Visibility Sampling

Peter Wonka
Arizona State University

Michael Wimmer
Technische Universität Wien

Kaichi Zhou
Arizona State University

Stefan Maierhofer
Gerd Hesina
Zentrum für Virtual Reality und
Visualisierung

Alexander Reshetov
Intel Corporation

A Spatial Data Structure for Fast Poisson-Disk Generation

Daniel Dunbar
Greg Humphreys
University of Virginia

Recursive Wang Tiles for Real- Time Blue Noise

Johannes Kopf
Universität Konstanz

Daniel Cohen-Or
Tel Aviv University

Oliver Deussen
Universität Konstanz

Dani Lischinski
The Hebrew University of Jerusalem

8:30 – 10:15 am

Image Processing

Session Chair: Yizhou Yu, University of
Illinois at Urbana-Champaign

Fast Median and Bilateral Filtering

Ben Weiss
Shell & Slate Software

Hybrid images

Aude Oliva
Massachusetts Institute of Technology,
Department of Brain and Cognitive
Sciences

Antonio Torralba
Massachusetts Institute of Technology,
Computer Science and Artificial
Intelligence Laboratory

Philippe G. Schyns
University of Glasgow

Image Deformation Using Moving Least Squares

Scott Schaefer
Travis McPhail
Joe Warren
Rice University

Appearance-Space Texture Synthesis

Sylvain Lefebvre
Hughes Hoppe
Microsoft Research

10:30 am – 12:15 pm

Shape Matching and Symmetry

Session Chair: Ioana Boier-Martin,
IBM T.J. Watson Research Center

A Planar Reflective Symmetry Transform for 3D Shapes

Joshua Podolak
Philip Shilane
Aleksy Golovinskiy
Szymon Rusinkiewicz
Thomas A. Funkhouser
Princeton University

Partial and Approximate Symmetry Detection for 3D Geometry

Niloy J. Mitra
Leonidas J. Guibas
Stanford University

Mark Pauly
Eidgenössische Technische Hochschule
Zürich

Reassembling Fractured Objects by Geometric Matching

Qi-Xing Huang
Tsinghua University

Simon Floery
Technische Universität Wien

Natasha Gelfand
Stanford University

Michael Hofer
Helmut Pottmann
Technische Universität Wien

Perfect Spatial Hashing

Sylvain Lefebvre
Hughes Hoppe
Microsoft Research

Monday, 31 July

10:30 am – 12:15 pm

Shape Modeling and Textures

Session Chair: David Ebert,
Purdue University

SmoothSketch: 3D Free-Form Shapes From Complex Sketches

Olga Karpenko
John F. Hughes
Brown University

Image-Based Plant Modeling

Long Quan
Ping Tan
Gang Zeng
Lu Yuan
Jingdong Wang
The Hong Kong University of Science and
Technology

Sing Bing Kang
Microsoft Research

Interactive Decal Compositing With Discrete Exponential Maps

Ryan Schmidt
University of Calgary

Cindy Grimm
Washington University in St. Louis

Brian Wyvill
University of Calgary

Procedural Modeling of Buildings

Pascal Mueller
Eidgenössische Technische Hochschule
Zürich

Peter Wonka
Arizona State University

Simon Haegler
Andreas Ulmer
Luc Van Gool
Eidgenössische Technische Hochschule
Zürich

3:45 – 6 pm

Image Manipulation

Session Chair: Alexei Efros,
Carnegie Mellon University

Color Harmonization

Daniel Cohen-Or
Olga Sorkine
Ran Gal
Tommer Leyvand
Tel Aviv University

Ying-Qing Xu
Microsoft Research Asia

Drag-and-Drop Pasting

Jiaya Jia
Chinese University of Hong Kong

Jian Sun
Microsoft Research Asia

Ruonan Pu
Chi-Keung Tang
Hong Kong University of Science and
Technology

Heung-Yeung Shum
Microsoft Research Asia

Two-Scale Tone Management for Photographic Look

Soonmin Bae
Sylvain Paris
Frédo Durand
Massachusetts Institute of Technology,
Computer Science and Artificial
Intelligence Laboratory

Interactive Local Adjustment of Tonal Values

Dani Lischinski
Zeev Farbman
The Hebrew University

Matt Uyttendaele
Rick Szeliski
Microsoft Research

Image-Based Material Editing

Erum Arif Khan
University of Central Florida

Erik Reinhard
University of Bristol

Roland Fleming
Heinrich Buelthoff
Max-Planck-Institute für biologische
Kybernetic

Tuesday, 1 August

8:30 – 10:15 am

Surfaces

Session Chair: Leif P. Kobbelt,
RWTH Aachen University

Real-Time GPU Rendering of Piecewise Algebraic Surfaces

Charles Loop
Jim Blinn
Microsoft Research

Point-Sampled Cell Complexes

Anders Adamson
Technische Universität Darmstadt

Marc Alexa
Technische Universität Berlin

Geometric Modeling With Conical Meshes and Developable Surfaces

Yang Liu
University of Hong Kong

Helmut Pottmann
Johannes Wallner
Technische Universität Wien

Wenping Wang
University of Hong Kong

Yong-Liang Yang
Tsinghua University

Mesh Quilting for Geometric Texture Synthesis

Kun Zhou
Xin Huang
Xi Wang
Microsoft Research Asia

Yi-Ying Tong
Mathieu Desbrun
California Institute of Technology

Baining Guo
Heung-Yeung Shum
Microsoft Research Asia

Tuesday, 1 August

10:30 am – 12:15 pm
HDR and Systems

Session Chair: Greg Ward,
BrightSide Technologies

**High-Dynamic-Range Texture
Compression for Graphics
Hardware**

Jacob Munkberg
Petrik Clarberg
Jon Hasselgren
Tomas Akenine-Möller
Lunds universitet

**High-Dynamic-Range Texture
Compression**

Kimmo Roimela
Tomi Aarnio
Joonas Itäranta
Nokia Research Center

**Backward Compatible High
Dynamic Range MPEG Video
Compression**

Rafal Mantiuk
Alexander Efremov
Karol Myszkowski
Hans-Peter Seidel
Max-Planck-Institut für Informatik

The Direct3D 10 System

David Blythe
Microsoft Corporation

1:45 – 3:30 pm
Appearance Representation

Session Chair: Holly Rushmeier,
Yale University

**Inverse Shade Trees for Non-
Parametric Material
Representation and Editing**

Jason Lawrence
Princeton University

Aner Ben-Artzi
Columbia University

Christopher DeCoro
Princeton University

Wojciech Matusik
Hanspeter Pfister
Mitsubishi Electric Research Laboratories
(MERL)

Ravi Ramamoorthi
Columbia University

Szymon Rusinkiewicz
Princeton University

**A Compact Factored
Representation of Heterogeneous
Subsurface Scattering**

Pieter Peers
Karl vom Berge
Katholieke Universiteit Leuven

Wojciech Matusik
Mitsubishi Electric Research Laboratories
(MERL)

Ravi Ramamoorthi
Columbia University

Jason Lawrence
Szymon Rusinkiewicz
Princeton University

Philip Dutré
Katholieke Universiteit Leuven

**Appearance Manifolds for
Modeling Time-Variant
Appearance of Materials**

Jiaping Wang
Institute of Computing Technology,
Chinese Academy of Sciences

Xin Tong
Steve Lin
Microsoft Research Asia

Minghao Pan
Zhejiang University

Chao Wang
Tsinghua University

Hujon Bao
Zhejiang University

Baining Guo
Heung-Yeung Shum
Microsoft Research Asia

**Time-Varying Surface
Appearance: Acquisition,
Modeling, and Rendering**

Jinwei Gu
Columbia University

Chien-i Tu
Mitsubishi Electric Research Laboratories
(MERL)

Ravi Ramamoorthi
Peter Belhumeur
Columbia University

Wojciech Matusik
Mitsubishi Electric Research Laboratories
(MERL)

Shree K. Nayar
Columbia University

Tuesday, 1 August

3:45 – 5:30 pm

Matting & Deblurring

Session Chair: Paul Debevec,
USC Centers for Creative Technologies

Flash Matting

Jian Sun
Yin Li
Microsoft Research Asia

Sing Bing Kang
Microsoft Research

Heung-Yeung Shum
Microsoft Research Asia

Natural Video Matting Using Camera Arrays

Neel Joshi
University of California, San Diego

Wojciech Matusik
Shai Avidan
Mitsubishi Electric Research Laboratories
(MERL)

Removing Camera Shake From a Single Photograph

Rob Fergus
Barun Singh
Massachusetts Institute of Technology,
Computer Science and Artificial
Intelligence Laboratory

Aaron Hertzmann
Sam Roweis
University of Toronto

William Freeman
Massachusetts Institute of Technology,
Computer Science and Artificial
Intelligence Laboratory

Coded Exposure Photography: Motion Deblurring Using Fluttered Shutter

Ramesh Raskar
Amit Agrawal
Mitsubishi Electric Research Laboratories
(MERL)

Jack Tumblin
Northwestern University

Wednesday, 2 August

8:30 – 10:15 am

Fluids

Session Chair: Ming Lin, University of
North Carolina at Chapel Hill

Efficient Simulation of Large Bodies of Water by Coupling Two and Three Dimensional Techniques

Geoffrey Irving
Stanford University and Pixar Animation
Studios

Eran Guendelman
Stanford University

Frank Losasso
Ronald Fedkiw
Stanford University and Industrial Light
& Magic

Multiple Interacting Liquids

Frank Losasso
Stanford University and Industrial Light
& Magic

Tamar Shinar
Stanford University

Andrew Selle
Stanford University and Intel Corporation

Ronald Fedkiw
Stanford University and Industrial Light
& Magic

Fluid Animation With Dynamic Meshes

Bryan M. Klingner
Bryan E. Feldman
Nuttapong Chentanez
James F. O'Brien
University of California, Berkeley

Model Reduction for Real-Time Fluids

Adrien Treuille
Andrew Lewis
Zoran Popović
University of Washington
and Electronic Arts

8:30 – 10:15 am

Image Collections

Session Chair: Wojciech Matusik,
Mitsubishi Electric Research Laboratories
(MERL)

Photo Tourism: Exploring Photo Collections in 3D

Noah Snavely
Steven M. Seitz
University of Washington

Richard Szeliski
Microsoft Research

AutoCollage

Carsten Rother
Lucas Bordeaux
Youssef Hamadi
Andrew Blake
Microsoft Research Cambridge

Photographing Long Scenes With Multi-Viewpoint Panoramas

Aseem Agarwala
University of Washington

Maneesh Agrawala
University of California, Berkeley

Michael F. Cohen
Richard Szeliski
Microsoft Research

David Salesin
University of Washington and Adobe
Systems Incorporated

Schematic Storyboarding for Video Visualization and Editing

Dan B. Goldman
Brian Curless
University of Washington

David Salesin
University of Washington and Adobe
Systems Incorporated

Steven M. Seitz
University of Washington

inter

Wednesday, 2 August

10:30 am – 12:15 pm

Motion Capture

Session Chair: Doug L. James,
Carnegie Mellon University

Interaction Capture and Synthesis

Paul G. Kry
The University of British Columbia and
EVASION/INRIA

Dinesh K. Pai
Rutgers University and The University of
British Columbia

Capturing and Animating Skin Deformation in Human Motion

Sang Il Park
Jessica K. Hodgins
Carnegie Mellon University

Compression of Motion Capture Databases

Okan Arıkan
University of Texas at Austin

Motion Patches: Building Blocks for Virtual Environments Annotated With Motion Data

Kang Hoon Lee
Myeong Geol Choi
Jehee Lee
Seoul National University

10:30 am – 12:15 pm

Image Capture

Session Chair: Szymon Rusinkiewicz,
Princeton University

Projection Defocus Analysis for Scene Capture and Image Display

Li Zhang
Shree K. Nayar
Columbia University

Multiview Radial Catadioptric Imaging for Scene Capture

Sujit Kuthirummal
Shree K. Nayar
Columbia University

Light Field Microscopy

Marc Levoy
Ren Ng
Andrew Adams
Matthew Footer
Mark Horowitz
Stanford University

Fast Separation of Direct and Global Components of a Scene Using High Frequency Illumination

Shree K. Nayar
Gurunandan Krishnan
Columbia University

Michael D. Grossberg
City University of New York

Ramesh Raskar
Mitsubishi Electric Research Laboratories
(MERL)

3:45 – 6 pm

Precomputed Transfer

Session Chair: Fabio Pellacini,
Dartmouth College

Real-Time BRDF Editing in Complex Lighting

Aner Ben-Artzi
Ryan Overbeck
Ravi Ramamoorthi
Columbia University

Generalized Wavelet Product Integral for Rendering Dynamic Glossy Objects

Weifeng Sun
Amar Mukherjee
University of Central Florida

All-Frequency Precomputed Radiance Transfer Using Spherical Radial Basis Functions and Clustered Tensor Approximation

Yu-Ting Tsai
Zen-Chung Shih
National Chiao Tung University

Real-Time Soft Shadows in Dynamic Scenes Using Spherical Harmonic Exponentiation

Zhong Ren
Rui Wang
Zhejiang University

John Snyder
Microsoft Research

Kun Zhou
Xinguo Liu
Microsoft Research Asia

Bo Sun
Columbia University

Peter-Pike Sloan
Microsoft Corporation

Hujun Bao
Qunsheng Peng
Zhejiang University

Baining Guo
Microsoft Research Asia

Precomputed Acoustic Transfer: Output-Sensitive, Accurate Sound Generation for Geometrically Complex Vibration Sources

Doug L. James
Jernej Barbic
Carnegie Mellon University

Dinesh K. Pai
Rutgers University and The University
of British Columbia

face

Thursday, 3 August

8:30 – 10:15 am

Appearance Modeling

Session Chair: Philip Dutré, Katholieke
Universiteit Leuven

Photorealistic Rendering of Rain Streaks

Kshitiz Garg
Shree K. Nayar
Columbia University

Acquiring Scattering Properties of Participating Media by Dilution

Srinivasa Narasimhan
Mohit Gupta
Carnegie Mellon University

Craig Donner
University of California, San Diego

Ravi Ramamoorthi
Shree K. Nayar
Columbia University

Henrik Wann Jensen
University of California, San Diego

Analysis of Human Faces Using a Measurement-Based Skin Reflectance Model

Tim Weyrich
Eidgenössische Technische Hochschule
Zürich

Wojciech Matusik
Hanspeter Pfister
Mitsubishi Electric Research Laboratories
(MERL)

Bernd Bickel
Eidgenössische Technische Hochschule
Zürich

Craig Donner
University of California, San Diego

Chien Tu
Janet McAndless
Mitsubishi Electric Research Laboratories
(MERL)

Jinho Lee
Atlantis Corp.

Addy Ngan
Massachusetts Institute of Technology

Henrik Wann Jensen
University of California, San Diego

Markus Gross
Eidgenössische Technische Hochschule
Zürich

A Statistical Model for Synthesis of Detailed Facial Geometry

Aleksey Golovinskiy
Princeton University

Wojciech Matusik
Hanspeter Pfister
Mitsubishi Electric Research Laboratories
(MERL)

Szymon Rusinkiewicz
Thomas A. Funkhouser
Princeton University

8:30 – 10:15 am

Meshes

Session Chair: Joe Warren, Rice
University

Modified Subdivision Surfaces With Continuous Curvature

Adi Levin
Cadent Ltd.

Edge Subdivision Schemes and the Construction of Smooth Vector Fields

Ke Wang
Weiwei
Yiyong Tong
Mathieu Desbrun
Peter Schröder
California Institute of Technology

Streaming Computation of Delaunay Triangulations

Martin Isenburg
University of California, Berkeley

Yuanxin Liu
University of North Carolina at Chapel Hill

Jonathan Shewchuk
University of California, Berkeley

Jack Snoeyink
University of North Carolina at Chapel Hill

Spectral Surface Quadrangulation

Shen Dong
Peer-Timo Bremer
Michael Garland
University of Illinois, Urbana-Champaign

Valerio Pascucci
Lawrence Livermore National Laboratory

John C. Hart
University of Illinois, Urbana-Champaign

inter

Thursday, 3 August

10:30 am – 12:15 pm
Light Transport

Session Chair: Ravi Ramamoorthi,
Columbia University

Simulating Multiple Scattering in Hair Using a Photon-Mapping Approach

Jonathan T. Moon
Stephen R. Marschner
Cornell University

Statistical Acceleration for Animated Global Illumination

Mark Meyer
John Anderson
Pixar Animation Studios

Multidimensional Lightcuts

Bruce Walter
Adam Arbree
Kavita Bala
Donald Greenberg
Cornell University

Direct-to-Indirect Transfer for Cinematic Relighting

Milos Hasan
Cornell University

Fabio Pellacini
Dartmouth College

Kavita Bala
Cornell University

10:30 am – 12:15 pm
Shape Deformation

Session Chair: Marc Alexa, Technische
Universität Berlin

Editing Arbitrarily Deforming Surface Animations

Scott Kircher
Michael Garland
University of Illinois at Urbana-Champaign

A Fast Multigrid Algorithm for Mesh Deformation

Lin Shi
Yizhou Yu
Nathan Bell
Wei-Wen Feng
University of Illinois at Urbana-Champaign

Vector-Field-Based Shape Deformations

Wolfram von Funck
Holger Theisel
Hans-Peter Seidel
Max-Planck-Institut für Informatik

Gradient Domain Mesh Deformation

Jin Huang
Xiaohan Shi
Zhejiang University

Xinguo Liu
Kun Zhou
Li-Yi Wei
Microsoft Research Asia

Shanghua Teng
Boston University

Hujun Bao
Zhejiang University

Baining Guo
Heung-Yeung Shum
Microsoft Research Asia

1:45 – 3:30 pm
Numerical and Geometric Algorithms and Crowds

Session Chair: John Snyder, Microsoft
Research

Locally Adapted Hierarchical Basis Preconditioning

Richard Szeliski
Microsoft Research

Fast Proximity Computation Among Deformable Models Using Discrete Voronoi Diagrams

Avneesh Sud
Naga Govindaraju
Russell Gayle
Ilknur Kabul
Dinesh Manocha
University of North Carolina at Chapel Hill

Resolving Surface Collisions Through Intersection Contour Minimization

Pascal Volino
Nadia Magnenat-Thalmann
L'Université de Genève

Continuum Crowds

Adrien Treuille
Seth Cooper
Zoran Popović
University of Washington and
Electronic Arts

connect

Thursday, 3 August

1:45 – 3:30 pm

Animation

Session Chair: Dinesh K. Pai, Rutgers University and The University of British Columbia

The Cartoon Animation Filter

Jue Wang
University of Washington

Maneesh Agrawala
University of California, Berkeley

Steven Drucker
Michael F. Cohen
Microsoft Research

Inverse Kinematics for Reduced Deformable Models

Kevin G. Der
Massachusetts Institute of Technology

Robert W. Sumner
Eidgenössische Technische Hochschule Zürich

Jovan Popović
Massachusetts Institute of Technology

Super-Helices for Predicting the Dynamics of Natural Hair

Florence Bertails
EVASION/INRIA

Basile Audoly
Audoly Consulting
LMM/NRS et Université Pierre et Marie

Marie-Paule Cani
EVASION / INRIA

Bernard Querleux
Frédéric Leroy
L'Oréal Recherche, Aulnay-Sous-Bois

Jean-Luc Lévêque
L'Oréal Recherche, Clichy

Heads Up! Biomechanical Modeling and Neuromuscular Control of the Neck

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

3:45 – 5:30 pm

Non-Photorealistic Rendering

Session Chair: Aaron Hertzmann, University of Toronto

Exaggerated Shading for Depicting Shape and Detail

Szymon Rusinkiewicz
Michael Burns
Princeton University

Doug DeCarlo
Rutgers University

Image Enhancement by Unsharp Masking the Depth Buffer

Thomas Luft
Carsten Colditz
Oliver Deussen
Universität Konstanz

Manga Colorization

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

Real-Time Video Abstraction

Holger Winnemöller
Sven Olsen
Bruce Gooch
Northwestern University

Panels

interrogate the experts and disagree with their detractors. Panelists present brief statements about the issues that energize the computer graphics community, debate the topics, and answer questions from the audience.



**For detailed information
on all SIGGRAPH 2006 Panels, visit:**
www.siggraph.org/s2006

Full Conference and Conference Select registration allows attendees access to all SIGGRAPH 2006 Panels. Seating in Panels is on a first-come, first-served basis. Please be sure to arrive early for the Panels you wish to attend.

Monday, 31 July

Digital Rights, Digital Restrictions

3:45 – 5:30 pm

The internet, with its widening bandwidth and accelerating speed, allows people throughout the world to exchange immense amounts of digital information. Not only can people share their home movies. They can also share movies that they didn't make and didn't even pay for. Music companies and movie studios have tried to clamp down on piracy with laws like the Digital Millennium Copyright Act (DMCA) and lawsuits against people they believe are stealing their products.

When DJ Danger Mouse released "The Grey Album" (a remix of Jay-Z's "The Black Album" and The Beatles' "The White Album") on the web, sites that distributed the music received a cease-and-desist notice from EMI. Then Sony joined in with Digital Millennium Copyright Act (DMCA) takedown notices. Is this sort of mashup legal? Should it be? Is the DMCA the correct way to protect art? Is restricting the creativity of artists justified when the art of others is involved?

Hardware and software manufacturers, working with movie studios, record studios, and other content providers, are releasing systems with Digital Rights Management (DRM). These products limit how and when content (text, audio, and video) can be viewed and copied. Is DRM a reasonable response to corporate concerns about piracy and mashing? Is restricting the customer's ability to play a movie using a non-DRM player, television, or stereo a fair move to prevent theft? Will everyone be forced to upgrade to see next year's movies?

Some companies are trying a more active approach: Sony recently added copy-protection software on some of their audio CDs. This "rootkit" software installs itself without telling the user, hides its own contents, and examines what other programs are running on the computer. Is unannounced software installation reasonable? If the software is sending information across the internet to another party, is that reasonable? Where is the line drawn, and who gets to draw it?

Panelists
Robert Ryang
P.S. 260

Karen Sandler
Software Freedom Law Center

Mitch Singer
Sony Pictures Entertainment

Emru Townsend
FPS Magazine

Tuesday, 1 August

Is a Career in Computer Graphics Possible?

10:30 am – 12:15 pm

Part 1: Skills and Training

How can anyone keep up with the rapid advances in our field? Employees that want to stay current with new technologies and techniques must find a balance with their daily work schedule. If you can't keep up, will you be able to stay employed?

Are schools able to represent the environment students will eventually find in the field? What skill sets are most valuable? Is it better to be a generalist or a specialist? How much should new employees be expected to know, and how much should they expect to be trained on the job?

Is it worth it for employers to help keep their employees trained, or are they better off just hiring people who are on the cutting edge? Are training departments able to keep up with the demands of employees who are on shortened schedules?

Is becoming obsolete inevitable? Or are there strategies for staying current?

Panelists
Chryssa Cooke
Ex'pression College for Digital Arts

Greg Maloney
Industrial Light & Magic

Ken Maruyama
Sony Pictures Imageworks

inter

Tuesday, 1 August

So You Want to Create Content: Licenses, Copyrights, and Other Things to Think About

1:45 – 3:30 pm

Licensing in the digital world once meant deciding between open and proprietary licenses. Later, producing free content meant deciding between “free as in beer” and “free as in speech.” Today, there is a vast array of licensing and copyright schemes, each with a different view of what’s protected and what’s not. Why do we need so many schemes? Are they really useful? Do you understand the difference between copyleft and Creative Commons?

More schemes are coming, most notably the new GPL version 3. Why create a new licensing scheme? What’s left out of today’s schemes that tomorrow’s will cover? As software developers and content creators, should we “share the wealth” or “protect our wealth?”

Panelists

Andy Luckey
Greater Family, LLC

Gary Morris
Kenyon & Kenyon, LLP

Gregory Silberman
Kay Scholer, LLP

Ethics in Image Manipulation

3:45 – 5:30 pm

For a very small investment, anyone can access the tools required to make significant yet undetectable changes to photographs and other images. The SIGGRAPH community can take much of the credit for this amazing progress. Should we also take the responsibility? Should SIGGRAPH get more involved in public policy?

Some recent examples of significant unethical applications:

- During the OJ Simpson investigation, both Time and Newsweek ran Simpson’s mug shot on their covers, on the same week. But Time doctored the photo to make Mr. Simpson look darker, blurrier, and more sinister.
- In 2004, the Bush presidential campaign admitted that it digitally duplicated soldiers to change the appearance of a campaign-event photo.
- During the 2000 New Year’s Eve celebration, CBS digitally replaced the NBC logo on the Times Square Jumbotron with their own logo.

Image manipulation is essential in the visual effects industry, but it is discouraged in research and journalism. And there are many gray areas. When is image manipulation appropriate? How should the SIGGRAPH community respond to unethical applications of what we have created? Where do we draw the line, and should we draw it? How do we teach these ethics to our students?

Panelists

Kathryn Carlson
Fluid Effect

Brian DeLevie
University of Colorado at Denver

Aude Oliva
Massachusetts Institute of Technology

disciplinary

Wednesday, 2 August

Video Games: Content and Responsibility

10:30 am – 12:15 pm

Since their invention, video games have been accused of many things, including:

- Male-focused stories and design
- Excessive violence
- Promoting addiction to digital entertainment
- Distorting attention spans

Of course, the same complaints have been made about radio, television, the internet, and computers in general. Are all or any of these concerns valid?

When will someone write games that girls want to play, or has it already been done? Do fun and educational video games exist? Do video games train people to be violent, or do they provide a safe way to vent violent tendencies? Does the ESRB rating system go too far, or not far enough? Are game developers and publishers taking enough responsibility for their creations? Are consumers using their products responsibly?

Panelists

Jonathan Cho Yan Chan
University of Hong Kong

Jason Della Rocca
International Game Developers Association

Tamsen Mitchell
Shaba Games, Inc.

David Walsh
National Institute for Media and the Family

Is a Career in Computer Graphics Possible?

3:45 – 5:30 pm

Part 2: Dedication and Expectation

Is our work environment becoming as ephemeral as our work? Companies are demanding more of our time, making permanent crunch time a possible future. Can companies stay profitable while avoiding massive overtime, or are class action lawsuits by employees going to proliferate?

Or is that impossible? Should we just learn to live with serious stress and eventual burnout?

How have employers and employees who've been in this business for many years survived?

What can all of us (companies, employers, researchers, developers, artists, students) do to make sure that sane and stable jobs exist for us in computer graphics?

Panelists

Jenny Fulle
Sony Pictures Imageworks

Kevin Koch
The Animation Guild, IATSE Local 839

Henry LaBounta
Electronic Arts

Committees

ACM SIGGRAPH is a diverse group of researchers, artists, developers, filmmakers, scientists, and other professionals, who share an interest in computer graphics and interactive techniques. The community values excellence, passion, integrity, volunteerism, and cross-disciplinary interaction. ACM SIGGRAPH sponsors 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, a traveling art show, and the SIGGRAPH Video Review. For additional information about ACM SIGGRAPH: www.siggraph.org

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Internet Access

Free wireless access will be available for SIGGRAPH 2006 throughout the Boston Conference & Exhibition Center (BCEC). SIGGRAPH 2006 will not be providing public workstations for internet access, however, there will be limited internet access in the FedEx Kinkos located in the BCEC.

Job Fair

Tuesday – Thursday, 1 – 3 August
10 am – 4 pm

Interview job seekers and companies looking for talented professionals. The SIGGRAPH Conference Job Fair returns in 2006 with extended hours and expanded offerings. New technology, features, and benefits have been added to help active jobseekers or casual networkers connect with employers before, during, and after SIGGRAPH 2006.



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- Are you casually networking to see what opportunities are available?
- Are you interested in getting acquainted with some great companies?
- Or are you hoping to broaden your horizons and possibly switch industries?

Employers

- Will you be looking for “right brain” talent at SIGGRAPH 2006?
 - Do you need an efficient and effective way to showcase your company and job openings?
 - Do you need access to professionals in multiple industries?
- If the answer to any of those questions is “yes,” participation in the SIGGRAPH 2006 JOB FAIR is a must!

The Job Fair is produced by CreativeHeads.net, THE Job Board for professionals in the video game, animation, VFX, TV, film, and software tools and technology industries.

For detailed information about the new and improved SIGGRAPH 2006 Job Fair, booth packages, exhibitor recruitment packages, employer pricing, and registration forms contact:

Ray Schnell
+1.310.607.8075 x281
jobfair@creativeheads.net

inter

Pathfinders

Special assistance for first-time SIGGRAPH conference attendees. Let us help you navigate your way through SIGGRAPH 2006. Feedback always welcome at: pathfinders@siggraph.org

Shipping Desk

The shipping desk, located in the SIGGRAPH 2006 registration area, provides next-day air, second-day air, and regular ground shipping services to destinations throughout the world.

Shuttle Service

SIGGRAPH 2006 provides complimentary shuttle service between most conference hotels and the Boston Convention & Exhibition Center.

NEW THIS YEAR: Shuttle service is available only to attendees who register at official conference hotels through the SIGGRAPH 2006 hotel reservation system. Those attendees will receive special wristbands that allow them to board the shuttle buses. Attendees who are not registered at official conference hotels will be allowed to purchase wristbands in the SIGGRAPH Store located in the Boston Convention & Exhibition Center. Attendees without wristbands will not be allowed to use the shuttle service.

Check the shuttle flyer and signs in the hotel lobbies for exact details.

Special 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.
- SIGGRAPH 2006 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 2006 or ACM SIGGRAPH.
- No cameras or recording devices are permitted at SIGGRAPH 2006. Abuse of this policy will result in the loss of the individual's registration credentials.

Transportation Options

Taxicabs

Taxicabs are available around the clock from Logan Airport. It takes about 20-25 minutes from Logan Airport to the SIGGRAPH 2006 hotels in the Back Bay area. Fares are approximately \$18-\$25.

Subway Transportation

Free shuttle bus service runs between airline terminals and the T (subway system). The shuttle operates daily from 5:30 am to 1 am with departures every 8-12 minutes. For more information and a T map, visit: www.siggraph.org/s2006 and select Boston.

Boston Convention & Exhibition Center

415 Summer Street
Boston, Massachusetts 02210 USA

Accessibility

The convention center is handicap accessible. If you have special needs or requirements, please call Conference Management at: **+1.312.644.6610**.

Business Center

FedEx Kinkos, in the the main lobby of the Boston Convention & Exhibition Center, offers the following services: faxing, copying, shipping/receiving, office supplies, internet access, and computer rental.

Food Services

Several restaurants, concessions, and food carts are available throughout the convention center for the convenience of SIGGRAPH 2006 attendees.

Parking

SIGGRAPH 2006 attendees can park at the rear of the Boston Convention and Exhibition Center for \$10 per day (self parking) in the South Lot. There is also valet parking for \$20 per day in front of the convention center. There are no in/out privileges for self or valet parking.

Housing & Travel

Hotel Reservations

SIGGRAPH 2006 has negotiated discount rates for hotels in Boston. These discounts are available to SIGGRAPH 2006 attendees only. Please make your hotel reservation by 30 June 2006. Reservations made after 30 June will be based on availability only.

Key Dates to Remember

30 June 2006: After this date, reservations are based on availability.

14 July 2006: Last day for deposits to be refunded.

21 July 2006, 1 pm Central time: You may submit housing requests or change or cancel existing reservations with Travel Technology Group.

24 July 2006: All reservation changes and cancellations are to be made directly with your assigned hotel.

Deposit and Cancellation Policy

A deposit of one night's room and tax is required for each room. After 14 July, the non-refundable deposit will be charged to the credit card used to guarantee the room reservation(s) by either your confirmed hotel or Travel Technology Group.

The non-refundable deposit does not guarantee your room reservation if you do not check in on your confirmed arrival date.

SIGGRAPH 2006's deposit policy supersedes any individual hotel's deposit policy.

Visit the SIGGRAPH 2006 web site www.siggraph.org/s2006 to access the easy to use online hotel reservation system, which includes complete information on housing policies, procedures and rates:

Or contact:

SIGGRAPH 2006 Housing
c/o Travel Technology Group
110 West Hubbard
Chicago, Illinois 60610 USA
800.631.5557 (Continental US and Canada)
+1.312.527.7300
+1.312.329.9513 fax
siggraph2006@ttgonline.com

Air Travel

Travel Technology Group (TTG), the official travel coordinator for SIGGRAPH 2006, provides custom itineraries with the best routing and travel times available.

Fly on the official airline, United Airlines, and save on special discounts unavailable to the general public. United Airlines is offering special meeting fares for SIGGRAPH 2006. Earn a 2 to 10% discount off of applicable fares, including First Class. By purchasing your ticket at least 30 days in advance of your scheduled travel,

you will receive an additional 5% discount. Mileage Plus members receive full credit for all miles flown to this meeting.

To receive your discounts, call the SIGGRAPH 2006 Travel Desk (Please call today as seats may be limited.):

TTG

800.631.5557 (US and Canada) or

+1.312.527.7300 (International)

siggraph2006@ttgonline.com

7 am to 6 pm, Central time, Monday through Friday

A \$30 service fee is charged for each airline ticket issued and purchased by phone. Save \$20 when you book online.

Or call United Airlines directly:

800.521.4041 and mention ID# 565HD

Hertz Rental Car

Hertz is the official car rental company for SIGGRAPH 2006.

For reservations call:

SIGGRAPH Travel Desk

800.631.5557 (US and Canada) or

+1.312.527.7300 (International)

Hertz

800.654.2240 (US and Canada)

or +1.405.749.4434

Or, reserve your car online:

www.hertz.com

When you call, mention file number:

CV# 032U0007

Boston

Boston is one of the oldest cities in North America. And one of the newest. For over 400 years, it has been a major international seaport and trading center. But it is also one of the world's most dynamic centers of 21st-century technology. Its citizens played a major role in American history. And they are constantly creating new cityscapes, intellectual breakthroughs, adventurous art, and new ways to enjoy life.

For complete information on Boston's tourist attractions, contact:

Greater Boston Convention & Visitors Bureau

Two Copley Place, Suite 105

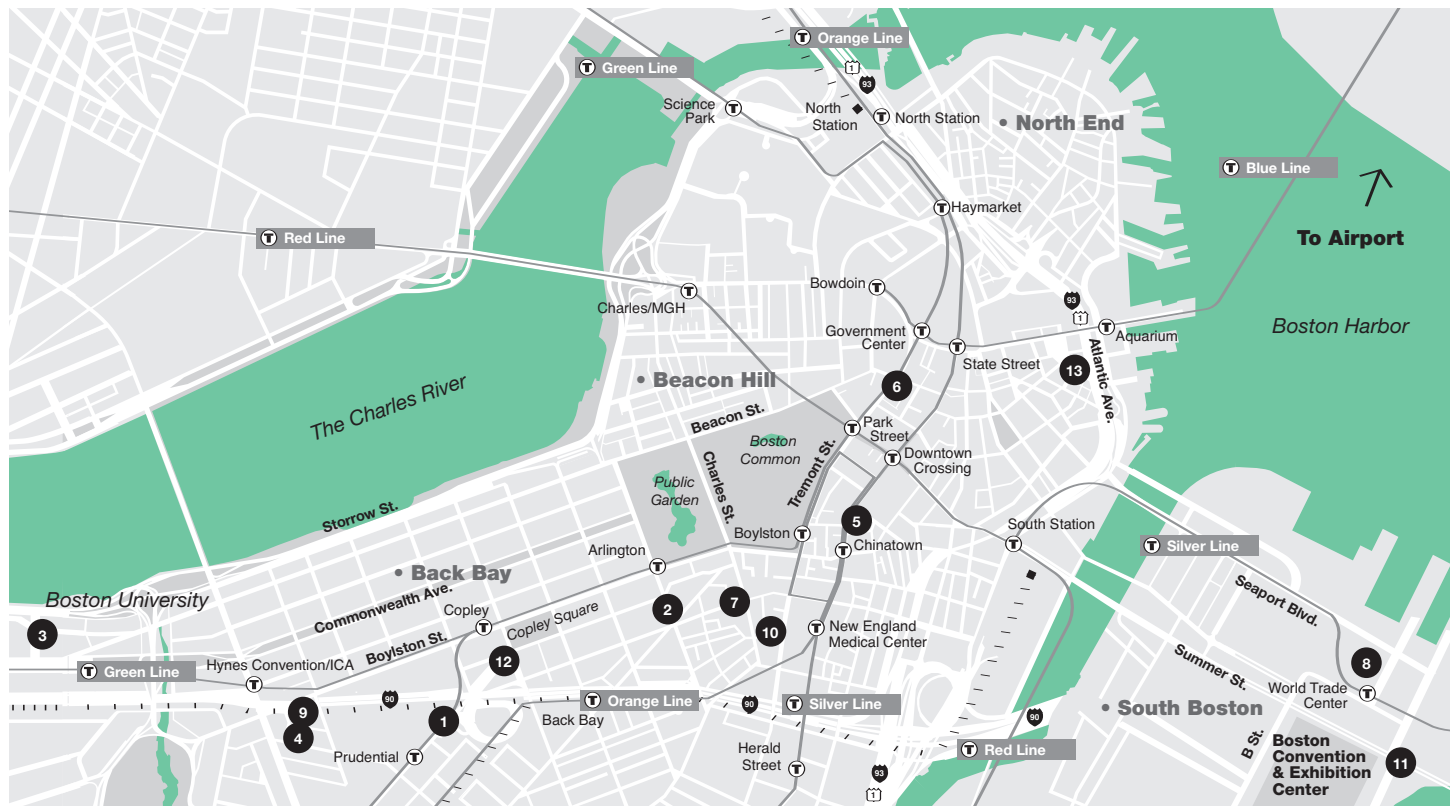
Boston, Massachusetts 02116-6501 USA

888-SEE BOSTON

<http://www.bostonusa.com/>

RESERVE YOUR HOTEL ACCOMMODATIONS ONLINE!

www.siggraph.org/s2006/housing



Downtown Boston Accommodations

A 12.45% tax per night is added to all hotel bills in Boston. Room occupancy taxes are subject to change. Early departure fees may apply. Prices are listed per night.

Hotels	Single (\$)	Double (\$)	Closest Subway Stations (T)
1 Boston Marriott Copley Place <i>Headquarters Hotel</i>	159	179	G Prudential / O Back Bay
2 Boston Park Plaza	141	161	G Arlington
3 Boston University Dormitories	69*		G St. Paul / Boston University West
4 Hilton Boston Back Bay	149	149	G Hynes Convention / Prudential (red line)
5 Hyatt Regency Boston Financial	144	144	O Chinatown / Downtown Crossing
6 Omni Parker House	149	149	G Park Street / O State Street
7 Radisson Hotel	139	139	O New England Medical Center / G Arlington
8 Seaport Hotel	169	169	S World Trade Center
9 Sheraton Boston	165	185	G Hynes Convention / Prudential
10 Tremont Boston	129	129	O New England Medical Center
11 Westin Boston Waterfront	177	193	S World Trade Center
12 Westin Copley Place	189	189	G Copley / O Back Bay
13 Wyndham Boston (<i>soon to be Hilton</i>)	149	169	O State Street / B Aquarium

*single only, tax included

O Orange Line **G** Green Line **B** Blue Line **S** Silver Line

When traveling to the convention center, stand on the "In Bound" side of the subway platform. When traveling back to the hotel from the convention center, stand on the "Out Bound" side of the subway platform. It costs **\$1.25*** to ride the subway.

*Fare subject to change.



RESERVE YOUR HOTEL ACCOMMODATIONS ONLINE!

www.siggraph.org/s2006/housing

Hotel Form

Reservation Information

Complete this form and fax or mail it to Travel Tech at the address below by Friday, 30 June. Reservation requests after this date are based on availability.

Travel Technology Group

110 West Hubbard Street
Chicago, Illinois 60610 USA
Attention: SIGGRAPH 2006
800.631.5557 (Continental US and Canada)
+1.312.527.7300 (International)
+1.312.329.9513 fax
siggraph2006@ttgonline.com

Or visit the SIGGRAPH 2006 web site where you can make your hotel reservation through the online housing system. To avoid a duplicate hotel reservation and possible cancellation penalties, do not send more than one hotel request.

Acknowledgements, Cancellations, Changes

Travel Tech will acknowledge your hotel reservations by email, fax, or by postal service (if no email or fax number is provided). Your acknowledgement will indicate the name, address, telephone number, deposits charged, and confirmed room rate for your hotel. If you need to make any changes or cancellations to your reservation on or before Friday, 21 July, contact Travel Tech. Beginning Monday, 24 July changes or cancellations must be made directly with your assigned hotel. Room deposits are non-refundable after Friday, 14 July. The non-refundable deposit does not guarantee your reservation if you do not check in on your confirmed arrival date. SIGGRAPH 2006's deposit policy supercedes any individual hotel's deposit policy.



Special Requirements**

It is important that you enjoy SIGGRAPH 2006. If, due to a disability, you have special needs or requirements, please provide us with details in the designated space. Please notify us by 12 July. Travel Tech will make every effort to accommodate your requests.

Attendee Information

Please print legibly.

Last Name	First Name
Organization	
Address	
City	State/Province
Country	Postal Code
Telephone (Include all country, area, and city codes.)	Fax
Email	

Hotel Preference

Travel Tech will do its best to accommodate you on your first hotel request. In the event that your preferred hotels are not available, an alternate hotel will be confirmed based on location and rate preferences.

First Request Hotel Name	Third Request Hotel Name
Second Request Hotel Name	Fourth Request Hotel Name

Reservation Request

If you are making reservations for more than one room, please supply information on all rooms required.

Guest Room One:	<input type="radio"/> Single*	<input type="radio"/> Double-1 Bed*	<input type="radio"/> Double-2 Beds*
Arrival Date	Arrival Time	Departure Date	Departure Time
Share Room With	Special Requirements**		
Guest Room Two:	<input type="radio"/> Single*	<input type="radio"/> Double-1 Bed*	<input type="radio"/> Double-2 Beds*
Arrival Date	Arrival Time	Departure Date	Departure Time
Share Room With	Special Requirements**		
Guest Room Three:	<input type="radio"/> Single*	<input type="radio"/> Double-1 Bed*	<input type="radio"/> Double-2 Beds*
Arrival Date	Arrival Time	Departure Date	Departure Time
Share Room With	Special Requirements**		
Guest Room Four:	<input type="radio"/> Single*	<input type="radio"/> Double-1 Bed*	<input type="radio"/> Double-2 Beds*
Arrival Date	Arrival Time	Departure Date	Departure Time
Share Room With	Special Requirements**		

* Note: We will do our best to honor bedding requests based on availability in hotel upon check-in.

Reservation Deposit

Your reservation requires one-night's room and tax deposit via credit card or check submitted with your reservation request. Deposits are non-refundable after Friday, 14 July. SIGGRAPH 2006's deposit policy supercedes any individual hotel's deposit policy.

Credit Card Type	Credit Card Holder Name	Expiration Date
Credit Card Number	Signature	

If you wish to provide your guarantee by check, enclose the one-night's room and tax deposit and make check payable to Travel Tech (address above). Room reservations guaranteed by check will only be accepted through written correspondence.

● Full Conference ● Conference Select ○ Exhibits Plus

One Day registration includes access to conference programs and events. It does not include technical documentation or tickets for the reception and Electronic Theater.

Presentations, experiences, services, and documentation included with your SIGGRAPH 2006 registration

Documentations

- Full Conference DVD-ROM*
- Conference Select CD-ROM**

*ACM *Transactions on Graphics* (Conference Proceedings Special Issue) and Electronic Art & Animation Catalog can be included depending on your level of registration.

**The Electronic Art & Animation Catalog can be included depending on your level of registration.

Presentations

- Courses
- Papers
- Panels
- Sketches
- Research Posters
- Educators Program
- Keynote Address/Awards
- Special Sessions
- Exhibitor Tech Talks
- Special Events

Experiences

- Art Gallery: *Intersections*
- Computer Animation Festival
- Electronic Theater Ticket - Any Show
- Electronic Theater Matinée Ticket
- Animation Theater
- Emerging Technologies
- Guerilla Studio
- Reception
- Teapot Exhibit

Services

- Birds of a Feather
- Get Involved
- International Resources
- Job Fair
- Pathfinders

Technical Materials

Full Conference and Conference Select registrants must pick up conference technical materials included with registration at the SIGGRAPH 2006 Merchandise Pickup Center. Shipping services are available at SIGGRAPH 2006. Unclaimed technical materials will not be shipped after the conference. Most of the technical publications are also available for sale in the SIGGRAPH 2006 Store and Boutique. Note: The printed ACM *Transactions on Graphics* (Conference Proceedings Special Issue) and the printed Electronic Art & Animation Catalog can be included in the price of registration this year. See *Registration Form, page 43, for details.*

Full Conference DVD-ROM

This digital publication contains the electronic version of the technical papers, images, and supplemental material; all of the course and tutorial notes, including supplemental material (movies, source code, HTML presentations); and the permanent record of the Educators Program, Emerging Technologies, Panels, Research Posters, Sketches, Special Sessions, and Teapot Exhibit; along with the permanent record of the Art Gallery: *Intersections* and Computer Animation Festival.

ACM Transactions on Graphics (Conference Proceedings Special Issue) – Printed

Contains the SIGGRAPH 2006 technical papers and the ACM SIGGRAPH awards. This can be purchased with your registration, or it may be purchased individually at the conference. The content of the printed version of the ACM *Transactions on Graphics* (Conference Proceedings Special Issue) and the Electronic Art & Animation Catalog is included on the Full Conference DVD-ROM. See *Registration Form, page 43, for details.*

Conference Select CD-ROM

This digital publication contains the permanent record of the Art Gallery: *Intersections* and Computer Animation Festival and the electronic version of the Educators Program, Emerging Technologies, Panels,

Research Posters, Sketches, Special Sessions, and the Teapot Exhibit. Papers, and Courses are available only on the Full Conference DVD-ROM.

Electronic Art & Animation Catalog – Printed

Contains the permanent record of images from the Art Gallery: *Intersections* and the Computer Animation Festival. The catalog can be purchased with your registration, or it may be purchased individually at the conference. The content of the printed Electronic Art & Animation Catalog is included on the Conference Select CD-ROM. See *Registration Form, page 43, for details.*

Merchandise

To purchase gifts for family, friends, colleagues, and yourself, order your merchandise in advance through the SIGGRAPH 2006 Registration Form. SIGGRAPH 2006 merchandise is available on a first-come, first-served basis. To see images of these items, visit the SIGGRAPH 2006 web site: www.siggraph.org/s2006

All SIGGRAPH 2006 documentation (see chart at left) including the SIGGRAPH Video Review is available for sale after the conference.

To order, contact:
ACM Order Department
 800.342.6626 (Continental US & Canada)
 +1.212.626.0500 (International)
 +1.212.944.1318 fax
orders@acm.org

SIGGRAPH Video Review

SIGGRAPH Video Review is the world's most widely circulated video-based publication. Over 150 programs, document the annual SIGGRAPH Computer Animation Festival, providing an unequalled opportunity to study state-of-the-art computer graphics techniques, theory and applications. New release and recent issues available in DVD format. Visit the SIGGRAPH Review booth near the SIGGRAPH 2006 Store. For information, contact: svrorders@siggraph.org

Registration Instructions & Policies

Complete all information on the registration form noting the following instructions and policies.

Part 1 Attendee Information

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 in order to receive the discount, otherwise you will be charged the non-member rate. Local or regional ACM SIGGRAPH Chapters memberships are not eligible for registration discounts.

Students: You must be a full-time student in order to qualify. You must provide your 2006 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. For membership and student verification inquiries, please contact the SIGGRAPH 2006 registration center: registration@siggraph.org

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

Part 2 Registration Category

Refer to page 41 for programs, activities, and conference documentation included with each registration category. Register for one category only.

Part 3 Merchandise

All SIGGRAPH 2006 technical materials and merchandise must be picked up at the conference at the Merchandise Pickup Center. No refunds will be given for items that are not claimed at the conference, nor will unclaimed items be shipped after the conference.

Part 4 Electronic Theater Ticket Purchase

One Electronic Theater ticket is included with Full Conference and Conference Select registrations. Registrants in any category can purchase one additional ticket. Please rank your preference, as tickets are issued on a first-come, first-served basis. No refunds. If you do not receive your first ticket choice, a limited number of tickets will be available for exchange at SIGGRAPH 2006 at the Ticket Exchange Counter in the registration area.

Part 5 Credential Mailing

If you would like to receive your badge in advance of the conference via express carrier, the following instructions apply:

- Select and include payment for the appropriate credential mailing option on the registration form.
- Your registration and payment must be received by Friday, 23 June.
- Student and member status must be fully verified with ALL documentation by Friday, 23 June.
- Your registration must be paid in full.
- You must provide us with a street address as express carriers do not deliver to P.O. boxes.

If the above instructions are followed, your badge will be mailed two-day service starting mid-July.

Credential Mailing Policies

- All prices are per person.
- SIGGRAPH 2006 is not responsible for lost credentials for which we have a carrier receipt that shows the package was received.
- Should your credentials be lost prior to arriving at the conference or should you forget to bring them, you will need to repay your registration fee and you will NOT receive a refund.

Part 6 Processing Fee

This fee must be paid in full before your registration credentials can be released.

Part 7 Payment Information

- Verify that subtotals add up correctly, and enclose payment.
- Checks and money orders (\$US only) should be made payable to SIGGRAPH 2006.
- Credit card payments must include a signature.
- Purchase orders are NOT accepted as payment.
- Forms will not be processed without accompanying payment in full.
- Do not send more than one registration form or it may result in duplicate billing.

Part 8 Special Requirements



SIGGRAPH 2006 wants you to enjoy and experience the conference to its fullest. Some special requirements may take significant time to arrange. To assist SIGGRAPH 2006 in accommodating your needs, please notify us by 12 July. Describe your needs in the space provided below. We will do our best to fulfill requests for special services, but it may not be possible to fulfill all requests, especially after 12 July.

A Note About Faxing: We strongly recommend faxing your form well in advance of the Friday, 23 June deadline. Fax volume increases as the deadline approaches, and SIGGRAPH 2006 is NOT responsible for faxes not received due to busy telephone lines. Keep a copy of your fax transmission report to verify that your fax was transmitted successfully by the deadline in the event of a problem.

Important Dates

Friday, 23 June

Advance Early Registration Deadline

Registration forms must be received (and full payment included) on or before this date in order to be eligible for advance early registration fees and to receive any mailed credentials.

Wednesday, 12 July

Advance Late Registration Fee Deadline

Registration forms must be received (and full payment included) on or before this date in order to be eligible for advance late registration fees.

Refund Deadline

Cancellation requests for refunds must be made in writing and received on or before Wednesday, 12 July. No refunds will be issued after this date. There is a refund processing fee of \$US 75. Exhibits Plus registrations are not refundable.

Substitutions

Substitutions must be made in writing and received before Wednesday, 12 July in order to be processed in advance. Email requests to SIGGRAPH 2006 Registration Management at the address below. In order to request a substitution at SIGGRAPH 2006, you must present, at the special assistance desk, a written request on company letterhead in addition to any previously mailed meeting credentials.

For more information, contact:

SIGGRAPH 2006
Registration Management
877.244.4432
+1.301.698.2510
+1.301.694.5124 fax
registration@siggraph.org

For ACM SIGGRAPH Membership Information, contact:

ACM
+1.212.626.0500
+1.212.944.1318 fax
acmhelp@acm.org

Send form to SIGGRAPH 2006 as follows:

Mail form and payment to:

ACM SIGGRAPH 2006
P.O. Box 809130
Chicago, Illinois 60680-9130 USA

or

Fax the registration form to:

+1.301.694.5124

or

Register online: www.siggraph.org/s2006



SIGGRAPH2006

Part 1 Attendee Information

Member or Student Member (SM): Membership Number _____ Non-Member (NM)

First Name _____ Last Name _____

Job Title _____ Organization _____

Address _____

City _____ State/Province _____ Country _____ Postal Code _____

Telephone (Include all country, area, and city codes.) _____ Fax _____ Email _____

Check if you do not want your contact information made available to exhibitors.

Your primary job/business focus:

Check only one:

- a Animation/Special Effects
- b Digital Video
- c Educator
- d Engineer
- e Game Developer
- f Graphic Arts/Design
- g Researcher/Scientist
- h Software Developer/Programmer
- i Student
- j Web Developer/eCommerce
- yy Other: _____

Products and services you use, recommend, specify, or purchase annually:

Check all that apply:

- j Animation
- k Business/PC Graphics
- l CAD/CAM/CAE/CIM/Robotics
- m Desktop/Other Publishing
- n Digital Video
- o Fine Arts/Graphic Design
- p Grid Applications
- q Monitors and Displays
- r Multimedia/Hypermedia
- s Scan Converters/Scanners
- t Scientific Visualization
- u Special Graphics Processors
- v Storage Systems
- w Virtual Reality/Simulation
- x Web Graphics/Development
- y Workstations
- z Other: _____

Rate your buying influence:

Check only one:

- aa Final Decision
- bb Specify/Recommend
- cc No Role

How many times have you attended SIGGRAPH in the past?

- dd Never attended before
- ee 1 time
- ff 2 times
- gg 3 or more times

Part 2 Registration Category

Registration Fee Subtotal \$

Register for one category only – Full Conference, Conference Select, One Day, or Exhibits Plus:

To qualify for member pricing you MUST be an ACM or an ACM SIGGRAPH Member prior to registering. CREDITS WILL NOT BE GIVEN IF YOU JOIN AFTERWARDS.

Full Conference (FC)

Level FCN: Includes Full Conference DVD-ROM only. **Level FCP:** Includes Full Conference DVD-ROM and printed ACM *Transaction on Graphics* (Conference Proceedings Special Issue). **Level FCE:** Includes Full Conference DVD-ROM and printed *Electronic Art & Animation Catalog*. **Level FCA:** Includes Full Conference DVD-ROM, printed ACM *Transaction on Graphics* (Conference Proceedings Special Issue), and printed *Electronic Art & Animation Catalog*.

The content of the printed version of the ACM *Transactions on Graphics* (Conference Proceedings Special Issue) and *Electronic Art & Animation Catalog* is included on the Full Conference DVD-ROM.

Received by 23 June:

- Member **FCN** \$750
- Member **FCP** \$775
- Member **FCE** \$775
- Member **FCA** \$800
- Non-Member **FCN** \$800
- Non-Member **FCP** \$825
- Non-Member **FCE** \$825
- Non-Member **FCA** \$850
- Student **FCN** \$345
- Student **FCP** \$370
- Student **FCE** \$370
- Student **FCA** \$395

Received by 12 July:

- Member **FCN** \$925
- Member **FCP** \$950
- Member **FCE** \$950
- Member **FCA** \$975
- Non-Member **FCN** \$975
- Non-Member **FCP** \$1000
- Non-Member **FCE** \$1000
- Non-Member **FCA** \$1025
- Student **FCN** \$400
- Student **FCP** \$425
- Student **FCE** \$425
- Student **FCA** \$450

At SIGGRAPH 2006:

- Member **FCN** \$1025
- Member **FCP** \$1050
- Member **FCE** \$1050
- Member **FCA** \$1075
- Non-Member **FCN** \$1075
- Non-Member **FCP** \$1100
- Non-Member **FCE** \$1100
- Non-Member **FCA** \$1125
- Student **FCN** \$450
- Student **FCP** \$475
- Student **FCE** \$475
- Student **FCA** \$500

Electronic Theater Ticket:

You must rank your time preference:

- ___ Monday 7 pm (670)
- ___ Tuesday 1:30 pm (671)
- ___ Tuesday 7 pm (672)
- ___ Wednesday 1:30 pm (673)
- ___ Wednesday 7 pm (674)

Conference Select (CS)

Level CSN: Includes Conference Select CD-ROM only. **Level CSE:** Includes Conference Select CD-ROM and printed *Electronic Art & Animation Catalog*. The content of the printed version of the *Electronic Art & Animation Catalog* is included on the Conference Select CD-ROM.

Received by 23 June:

- Member **CSN** \$225
- Member **CSE** \$250
- Non-Member **CSN** \$245
- Non-Member **CSE** \$270
- Student **CSN** \$195
- Student **CSE** \$220

Received by 12 July:

- Member **CSN** \$255
- Member **CSE** \$280
- Non-Member **CSN** \$275
- Non-Member **CSE** \$300
- Student **CSN** \$225
- Student **CSE** \$250

At SIGGRAPH 2006:

- Member **CSN** \$285
- Member **CSE** \$310
- Non-Member **CSN** \$305
- Non-Member **CSE** \$330
- Student **CSN** \$255
- Student **CSE** \$280

Electronic Theater Ticket:

You must rank your time preference:

- ___ Tuesday 1:30 pm (671)
- ___ Wednesday 1:30 pm (673)

One Day (OD)

Received by 23 June:

- \$300

Received by 12 July:

- \$350

At SIGGRAPH 2006:

- \$385

Days in Attendance:

Check up to two:

- ___ Sunday (SUN)
- ___ Monday (MON)
- ___ Tuesday (TUES)
- ___ Wednesday (WED)
- ___ Thursday (THUR)
- ___ Undecided (ODU)

Days _____ X \$ _____ = _____

Exhibits Plus (EP)

Received by 23 June:

- \$75

Received by 12 July:

- \$95

At SIGGRAPH 2006:

- \$95

Registration Form

Page 2 of 2

First Name	Last Name	
Telephone (Include all country, area, and city codes.)	Fax	Email

Part 2A Student Registration Sponsorship Optional \$ 10

\$10 donation toward the sponsorship of a student registration for SIGGRAPH 2006 (SD)

As a new initiative to encourage more student participation at SIGGRAPH, we are asking each registered attendee to donate \$10 to support this student initiative. This funding will be allocated to support students who might not otherwise be able to participate in SIGGRAPH.

Your donation is greatly appreciated.

Part 3 Merchandise Merchandise Subtotal \$

Travel Mug	Item# (490)	Quantity ____ x Cost \$15 = Subtotal \$ ____
T-shirt	Item# (500)	Quantity ____ x Cost \$20 = Subtotal \$ ____
Polo Shirt	Item# (520)	Quantity ____ x Cost \$37 = Subtotal \$ ____
Coffee Mug	Item# (525)	Quantity ____ x Cost \$15 = Subtotal \$ ____
Youth T-shirt	Item# (560)	Quantity ____ x Cost \$15 = Subtotal \$ ____
Hooded Sweatshirt	Item# (570)	Quantity ____ x Cost \$50 = Subtotal \$ ____
SIGGRAPH 2006 Video Review Set (DVD) Member	Item# (601)	Quantity ____ x Cost \$120 = Subtotal \$ ____
SIGGRAPH 2006 Video Review Set (DVD) Non-Member	Item# (601)	Quantity ____ x Cost \$180 = Subtotal \$ ____

ALL items MUST BE PICKED UP at SIGGRAPH 2006 in the Merchandise Pickup Center.

Part 4 Electronic Theater Ticket Purchase Electronic Theater Ticket Subtotal \$

Please rank your preference:

___ Monday 7-9 pm (770) ___ Tuesday 1:30-3:30 pm (771) ___ Tuesday 7-9 pm (772) ___ Wednesday 1:30-3:30 pm (773) ___ Wednesday 7-9 pm (774)

One ticket is already included with Full Conference and Conference Select registrations. Registrants in any category can purchase one additional ticket.

Quantity (1) x Cost \$50 = Subtotal \$50

Part 5 Credential Mailing Mailing Charges Subtotal \$

Two-day express mail to: Continental US/Canada. Cost: \$15 per person (990) Outside continental US/Canada. Cost: \$30 per person (991)

IMPORTANT: See Registration Instructions & Policies for residential mailing instructions and deadlines.

Part 6 Processing Fee For fax or mail (992) Processing Fee Subtotal \$ 15

Registration Form Page 1 Subtotal \$

Part 7 Payment Information Total Amount Due \$

Check or money order is enclosed, payable to SIGGRAPH 2006.

American Express MasterCard Visa Credit card # _____ Expiration date _____

Name _____

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Please fax both pages of this registration form.

Do It for Yourself AND Your Company: Tips to Pass On to Employers

Attend SIGGRAPH 2006 and Return Inspired by the Innovation

Knowing that the majority of SIGGRAPH conference attendees rely on their employers to fund their registration and travel in part or in full, we have developed the following value-based talking points for you to share with your boss.

- **Value.** SIGGRAPH is the only place you can find best-practice-based education with an average cost of \$30 per session*, significantly leveraging your organization's training dollars.
- **Emerging Technologies.** Only at SIGGRAPH do the most competitive, bleeding-edge minds in emerging technologies from around the world come together cooperatively for you to interact and engage with, bringing the future back to your organization today.
- **Industry Visionaries.** SIGGRAPH gives you access to hear first-hand accounts from industry icons, who were once in your shoes, about how and where their visions and inspiration were born.
- **Hands-On Know How.** Acquiring the most current information in an interactive environment is the only way to protect and leverage the significant investment your company has made in graphics technology.
- **One-Stop Shopping.** With budget time right around the corner, you need to start researching options and opportunities. What better way than with more than 250 exhibitors from five continents all in one place?
- **Personally Relevant Education.** One SIGGRAPH week offers nearly 300 education-based sessions to choose from, allowing you to tailor a personal education program that ensures you are learning something new and specifically relevant to your organization's needs.
- **Saves Time.** Because, while a week out of the office seems difficult, having to take up to a year to amass the directly relevant information and education you could gain in one week would be downright daunting.
- **Register Early and Afford More!** If you register early, you can save enough to buy a discount airline ticket, reducing your organization's out-of-pocket costs.
- **Convenience.** SIGGRAPH 2006 is coming to northeast North America (and the hub of academia and research) for the first time in 17 years, making this year's conference convenient to the eastern U.S. and Canada, as well as Europe.
- **Inspiration.** After your SIGGRAPH 2006 experience, you'll return to work rejuvenated and inspired, ready to bring your most creative ideas and new knowledge to the table.

* Based on an average attendee's participation in 25 sessions of various types over five days at the SIGGRAPH 2006 Member Discounted Registration rate.

Future Conference Dates

SIGGRAPH 2007
5 - 9 August 2007
San Diego, California

SIGGRAPH 2008
11 - 15 August 2008
Los Angeles, California

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