SIGGRAPHASIA2011 HONG KONG

The 4th ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia

Conference: 12-15 December | Exhibition: 13-15 December

CONFERENCE LOCATOR

Sponsored by ACM SIGGRAPH

www.SIGGRAPH.org/ASIA2011

Future Conference Dates:

SIGGRAPH 2012
5 - 9 August
Los Angeles Convention Center
Los Angeles
www.siggraph.org/s2012

SIGGRAPH Asia 2012
28 November - 1 December
Suntec Singapore
Singapore
www.siggraph.org/asia2012

To reserve an exhibit space, contact:

SIGGRAPH Asia 2012
Exhibition Sales Management
+65 6500 6725
exhibits_asia@siggraph.org

For contributor & attendee information, contact:

SIGGRAPH Asia 2012
Conference Management
+65 6500 6700
cmasia@siggraph.org

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Conference and Exhibition Hours & Policies

Registration: Ground Floor, Harbour Road Entrance

Sunday, 11 December 2011	14:00-18:00
Monday, 12 December 2011	08:00-18:30
Tuesday, 13 December 2011	08:00-18:30
Wednesday, 14 December 2011	08:00-18:30
Thursday, 15 December 2011	08:00-18:00

Merchandise Counter: Mezzanine

Monday, 12 December 2011	08:00-18:30
Tuesday, 13 December 2011	08:00-18:30
Wednesday, 14 December 2011	08:00-18:30
Thursday, 15 December 2011	08:00-18:00

Exhibition, Art Gallery, and Emerging Technologies, Level 3, Hall 3G

Tuesday, 13 December 2011	09:30-18:00
Wednesday, 14 December 2011	09:30-18:00
Thursday, 15 December 2011	09:30-17:00

Conference: Level 1, Convention Halls and Theater, Level 2, Rooms S221 - S230

Monday, 12 December 2011	09:00-18:00
Tuesday, 13 December 2011	09:00-18:00
Wednesday, 14 December 2011	09:00-18:00
Thursday, 15 December 2011	09:00-18:00

Bookstore: Convention Hall Foyer

Monday, 12 December 2011	09:30-18:30
Tuesday, 13 December 2011	09:30-18:30
Wednesday, 14 December 2011	09:30-18:30
Thursday, 15 December 2011	09:30-18:30

CGSOCIETY
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www.cgsociety.org

Image: Jack Zhang

Speaker Preparation Room: Level 2, Room S223

Sunday, 11 December 2011	14:00-18:00
Monday, 12 December 2011	08:00-18:00
Tuesday, 13 December 2011	08:00-18:00
Wednesday, 14 December 2011	08:00-18:00
Thursday, 15 December 2011	08:00-16:00

Conference Management Office: Level 1, Room V104

Sunday, 11 December 2011	14:00-18:00
Monday, 12 December 2011	08:00-18:00
Tuesday, 13 December 2011	08:00-18:00
Wednesday, 14 December 2011	08:00-18:00
Thursday, 15 December 2011	08:00-18:00

Exhibition Management Office: Level 3, Room G312

Monday, 12 December 2011	08:00-18:00
Tuesday, 13 December 2011	08:00-18:00
Wednesday, 14 December 2011	08:00-18:00
Thursday, 15 December 2011	08:00-18:00

Conference Policies

- Children under 16 are not permitted in the Exhibition. Age verification is required.
- Registered attendees under the age of 16 must be accompanied by an adult at all times.
- SIGGRAPH Asia 2011 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 Asia 2011 or ACM SIGGRAPH.
- Lost badges cannot be replaced. If you lose your badge you must register again at the published rates to obtain a new badge.
- SIGGRAPH Asia 2011 conference documentation and pre-purchased merchandise will not be shipped, nor will refunds be given for any material not picked up at the Merchandise Pickup Center.

Camera/Recording Policies

No cameras or recording devices are permitted at SIGGRAPH Asia 2011. Abuse of this policy will result in revocation of the individual's registration credentials.

SIGGRAPH Asia 2011 employs a professional photographer and reserves the right to use all images that this photographer takes during the conference for publication and promotion of future ACM SIGGRAPH events.

General Information

ACM Transactions on Graphics

The printed ACM Transaction on Graphics (Conference Proceedings Special Issue) contains the Technical Papers. ACM Transaction on Graphics (Conference Proceedings Special Issue) was available for purchase online through the SIGGRAPH Asia 2011 registration system on or before 31 October. There will be no sales of onsite copies. ACM Transaction on Graphics can be purchased through ACM's e-store at **http://store.acm.org** post conference.

Accesibility

The Hong Kong Convention and Exhibition Centre offers a full range of amenities to assist those with disabilities. Spacious guest lifts readily accommodate wheelchairs, and all entrances are ramped. Braille directory and teleloop system are installed in the Information Counters which are located at the Harbour Road and Expo Drive entrances. There are also tactile guide paths, specially designed toilets, and telephone booths. The Centre's car parks provide bays reserved for drivers with disabilities.

Automated Teller Machines (ATMs)/Banks/Currency Exchange

Banking and ATM facilities are available at Ground Floor of the Hong Kong Convention and Exhibition Centre.

Bookstore
Convention Hall Foyer

BreakPoint Books offers the latest and greatest books, CDs, and DVDs on computer animation, graphic design, gaming, 3D graphics, modeling, and digital artistry. The bookstore features recent books by SIGGRAPH speakers and award winners. Note: Bookstore refunds will only be processed during the conference. All bookstore policies are those of BreakPoint Books and not SIGGRAPH Asia 2011.

Cafeteria/Restaurants/Stand Catering

A variety of restaurants are available within Hong Kong Convention and Exhibition Centre. For booth catering, please call +852 2582 7885 or email catering@hkcec.com.

Child Care

Child care will not be provided at SIGGRAPH Asia 2011. Contact your hotel concierge for suggestions.

Conference Management Office
Level 1, Room V104

If you have questions regarding SIGGRAPH Asia 2011, stop by this office any time during conference hours.

Exhibition Management Office
Level 3, Room G312

Exhibition Management representatives are available during conference hours to meet with exhibitors and help with plans for exhibiting at SIGGRAPH Asia 2012.

Full Conference DVD-ROM

This digital publication contains the electronic version of the program content, including images and supplemental material. The content of the printed version of the ACM Transactions on Graphics (Conference Proceedings Special Issue) is also included on the Full Conference DVD-ROM. The DVD-ROM is included with all Full Conference Access registrations, and available for purchase at SIGGRAPH Asia 2011.

Lost and Found
Exhibition Management Office, Level 3, Room G312

To inquire about lost items during the conference, please proceed to the Exhibition Management Office. All lost items (including badges) should be turned into this location where they will be logged and stored until the conclusion of the conference. After the conference, all lost and found items will be turned over to the Security office of Hong Kong Convention and Exhibition Centre.

Merchandise Store
Mezzanine

Your conference documentation (included with registration) must be picked up at the Merchandise Store. Conference documentation and pre-purchased merchandise will not be shipped, nor will refunds be given for any material that is not picked up at the Merchandise Store. Open during registration hours. The Full Conference DVD and other merchandise items are also available for purchase here.

Parking

Parking is available in the two underground car parks located at Harbour Road and Expo Drive Central. Parking fees are HKD 24.00 per hour.

Speaker Preparation Room
Level 2, Room S223

Please pick up your badge, registration credentials, and conference information at the registration counter on the Ground Floor of Hong Kong Convention and Exhibition Centre, Harbour Road Entrance, before proceeding to the Speaker Preparation Room. You can collect your Speaker Ribbons and prepare your presentations at the Speaker Preparation Room.

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SIGGRAPH Asia 2011 Twitter Hashtags

Track your conversation through the following SIGGRAPH Asia 2011 Twitter hashtags:

Program/Event Name	Hashtags
Art Gallery	#siggraphasia #artgallery
Computer Animation Festival	#siggraphasia #caf
Courses	#siggraphasia #courses
Emerging Technologies	#siggraphasia #etech
Exhibition	#siggraphasia #exhibits
Exhibitor Tech Talks & Sessions	#siggraphasia #techtalks
Featured Speakers	#siggraphasia #speakers
Registration	#siggraphasia #registration
Special Sessions	#siggraphasia #specialsessions
Student Volunteers	#siggraphasia #sv
Technical Sketches & Posters	#siggraphasia #sketches #posters
Technical Papers	#siggraphasia #techpapers

Wireless Internet Access

SIGGRAPH Asia 2011 provides wireless network access in most areas of the convention center. To use the wireless network, attendees should have their own wireless cards.

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

1. Document all existing TCP/IP and wireless configuration information before you make any changes.
2. Configure your device to use DHCP.
3. Configure your wireless adapter network name (SSID) to be 'sa2011'.
4. When prompted for the password, please enter 'sa2011'.

The SIGGRAPH Asia 2011 wireless network provides communications for conference attendees. We strive to provide an infrastructure as good as possible. There is however restrictions to the bandwidth and amount of users the network can support.

For details, please visit http://ecentre.cyberport.hk

Enquiries: Tel: 31663900 Email: ecentre@cyberport.hk

CYBERPORT
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www.cyberport.hk

Monday, 12 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

08:00 – 18:30

	Registration	**Ground Floor, Harbour Road Entrance**
	SIGGRAPH Asia Merchandise Store	**Mezzanine**

09:00 – 12:45

■	**Courses** Introduction to Computer Graphics	**Convention Hall C**
■	**Courses** Perception in Graphics, Visualization, Virtual Environments and Animation	**Room S226**
■	**Courses** Time of Flight (ToF) Depth Sensor-based 3D Imaging Architecture for Future Display	**Room S222**

09:00 – 18:00

■	**Courses** Modern OpenGL Programming	**Room S224 & S225**

Monday, 12 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

14:15 – 18:00

■	**Courses** Advances in New Interfaces for Musical Expression	**Room S226**
■	**Courses** Developing Visual Interfaces for Mobile Devices	**Room S222**
■	**Courses** How to write a SIGGRAPH paper	**Convention Hall C**

18:00 – 19:15

■▲	Technical Papers Fast Forward	**Theater 1**

19:30 – 20:15

■▲	Technical Sketches Fast Forward	**Theater 1**

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

08:00 – 18:30

	Registration	**Ground Floor, Harbour Road Entrance**
	SIGGRAPH Asia Merchandise Store	**Mezzanine**

09:00 – 18:00

■ ▲ E	**Exhibition**	**Hall 3G**
■ ▲	**Posters Exhibition**	**Convention Hall Foyer**

09:00 – 09:50

■ ▲	**Exhibitor Sessions** NVIDIA Corporation – Cloud Rendering and IRAY – The Future of Rendering in the Cloud	**Room S221**

09:00 – 10:45

■	**Courses** Procedural Shading in RenderMan and Beyond	**Room S222**
■	**Courses** Introduction to OpenCL	**Convention Hall C**

WANTED

Senior artists for a full length Animated Feature based on the Penguins of Madagascar.

Technicolor India in association with DreamWorks Animation SKG is seeking talented and motivated individuals to join the DreamWorks Dedicated Unit at Technicolor, India.

To apply, please send your reel and resume to
careers.ddu@technicolor.com

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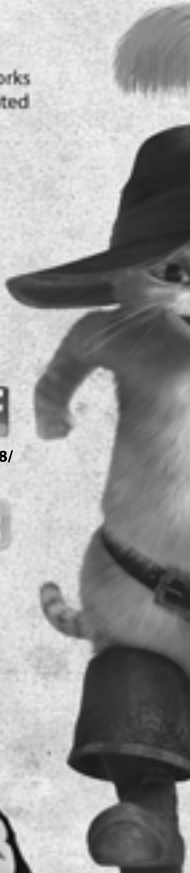

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Courses** **Room S226**
How to Write A Polarisation Ray Tracer

■ **Technical Papers** **Convention Hall B**
Shape Analysis and Deformation
- Pattern-Aware Shape Deformation Using Sliding Dockers
- Shape Space Exploration of Constrained Meshes
- Joint Shape Segmentation with Linear Programming
- Unsupervised Co-Segmentation of a Set of Shapes via Descriptor-Space Spectral Clustering

■ **Technical Sketches** **Room S225**
Geometric Modeling and Processing
- Beady: Interactive Beadwork Design and Construction
- Parallel and Unbiased Poisson Disk Sampling on Arbitrary Surfaces
- Heterogeneous Particle-Based Simulation
- Fast and Automatic 3D Full Head Synthesis using iPhone

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

09:00 – 12:45

■▲ **Computer Animation Festival** — **Theater 2**
Animation Theater Screening

10:00 – 10:50

■▲ **Exhibitor Sessions** — **Room S221**
NVIDIA Corporation – Character Clothing in PHYSX 3

10:00 – 18:00

■▲ **Exhibitor Sessions** — **Room S227**
Autodesk Asia Pte Ltd – Don't Blend In. Stand Out with Autodesk Digital Entertainment Creation Solutions

10:30 – 18:00

■▲ **Exhibitor Sessions** — **Room S228**
The Foundry – SIGGRAPH Asia GEEKFEST 2011

11:00 – 11:50

■▲ **Exhibitor Sessions** — **Room S221**
NVIDIA Corporation – Real-Time Water Simulation on the GPU

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

11:00 – 12:00

■ ▲ **E** **Exhibitor Sessions** — **Convention Hall A**
Pixar Animation Studios – "Pixar's RenderMan 2011 Roadmap" La Luna, Cars 2, and the Latest Rendering Technologies

11:00 – 13:00

■ ▲ **E** **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
DreamWorks Dedicated Unit, Technicolor India – Opportunities in India to work on DreamWorks Feature Projects

11:00 – 13:00

■ **Featured Speakers** — **Theater 1**
The Influence of Chinese Culture in Designing Kung Fu Panda 2
Jennifer Yuh Nelson and Raymond Zibach, DreamWorks Animation

13:00 – 13:50

■ ▲ **Exhibitor Sessions** — **Room S221**
NVIDIA Corporation – Graphics Virtualization and Remoting

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

13:00 – 14:00

■▲ **Computer Animation Festival - Production Sessions** — **Theater 2**
Mythical creatures and magical environments “Pirates of the Caribbean: On Stranger Tides”

13:30 – 14:30

■▲E **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
The Bakery – A New Approach to Lighting - Bakery Relight™

Book Signing — **Bookstore, Convention Hall Foyer**
with Jennifer Yuh Nelson and Raymond Zibach

13:15 – 14:45

■▲ **Courses** — **Theater 1**
Stereoscopy from XY to Z
Sponsored by Digital Magic

14:00 – 14:50

■▲ **Exhibitor Sessions** — **Room S221**
NVIDIA Corporation – Interacting with Huge Particle Simulations in MAYA Using the GPU (Using MAXIMUS)

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

14:15 – 16:00

■ **Technical Papers** **Convention Hall B**
Video and Capture
- Modeling and Generating Moving Trees from Video
- Candid Portrait Selection from Video
- Multiview Face Capture Using Polarized Spherical Gradient Illumination
- Video Face Replacement

■ **Technical Papers** **Convention Hall C**
NPR
- A Rendering Framework for Multiscale Views of 3D Models
- Mixed-Order Compositing for 3D Painting
- Animated Construction of Line Drawings
- Sketch-based Dynamic Illustration of Fluid Systems

■ **Technical Sketches** **Room S225**
Geometric Processing Techniques
- A Hybrid Object-Image Space Approach for Efficient and Robust Line Drawings
- A Parallel Constraint Solver for a Rigid Body Simulation
- Constant-Time All-Pairs Geodesic Distance Query On Triangle Meshes

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

- Automatic Generation of 3-D Building Models by Straight Skeleton

14:15 – 16:45

■▲ **Computer Animation Festival** — **Theater 2**
Animation Theater Screening

14:15 – 18:00

■ **Courses** — **Room S226**
Perceptually Inspired Methods for Naturally Navigating Virtual Worlds

■ **Courses** — **Room S222**
OpenCL by Example - Advanced Topics

■ **Symposium on Apps** — **Room S224**
Building Augmented Reality experiences using Layar Vision and Layar Player

15:00 – 15:50

■▲ **Exhibitor Sessions** — **Room S221**
NVIDIA Corporation – Advanced Production Techniques with Mental Ray

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

15:00 – 16:00

■ ▲ **E** **Exhibitor Sessions** — **Convention Hall A**
Pixar Animation Studios – "Pixar's RenderMan 2011 Roadmap" La Luna, Cars 2, and the Latest Rendering Technologies

15:00 – 16:15

■ ▲ **Special Sessions** — **Theater 1**
The Art of Making Stereoscopic 3D Animated Films
Sponsored by Digital Magic

15:00 – 17:00

■ ▲ **E** **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
Lucasfilm Singapore – Successful Creative Collaboration across Time and Space

16:00 – 17:50

■ ▲ **Exhibitor Sessions** — **Room S221**
NVIDIA Corporation – NVIDIA Product Demonstration and Q & A

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

16:15 – 18:00

■ **Technical Papers** **Convention Hall C**
Quads and Friends
- General Planar Quadrilateral Mesh Design Using Conjugate Direction Field
- Connectivity Editing for Quadrilateral Meshes
- Simple Quad Domains for Field Aligned Mesh Parametrization
- Boundary Aligned Smooth 3D Cross-Frame Field

■ **Technical Sketches** **Room S225**
Light & Illumination
- Fast Global Illumination Baking via Ray-Bundles
- Efficient Search of Lightcuts by Spatial Clustering
- Bidirectional Light Transport with Vertex Merging
- Capturing Shape and Reflectance of Food

16:15 – 18:25

■ **Technical Papers** **Convention Hall B**
Contact, Collision and Congestion
- Interactive Hybrid Simulation of Large-Scale Traffic

Tuesday, 13 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

- Pattern-Guided Smoke Animation with Lagrangian Coherent Structure
- Interference Aware Geometric Modeling
- Imperceptible Relaxation of Collision Avoidance Constraints in Virtual Crowds
- A Hybrid Iterative Solver for Robustly Capturing Coulomb Friction in Hair Dynamics

16:30 – 18:30

■▲ **Computer Animation Festival – 3D Symposium** — **Theater 1**
Stereoscopic Production Sessions
Sponsored by Digital Magic

19:00 – 21:00

■ **Computer Animation Festival** — **Theater 1**
Electronic Theater Screening

19:00 – 22:00

■ **SIGGRAPH Asia 2011 Networking Reception** — **Cyberport**
(Ticketed Access)

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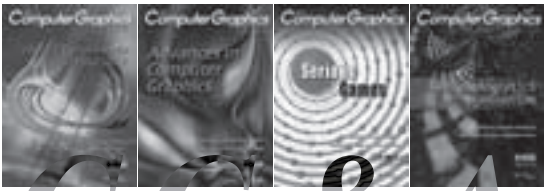

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Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

08:00 – 18:30

	Registration	**Ground Floor, Harbour Road Entrance**
	SIGGRAPH Asia Merchandise Store	**Mezzanine**

09:00 – 18:00

■ ▲ E	**Exhibition**	**Hall 3G**
■ ▲	**Posters Exhibition**	**Convention Hall Foyer**

09:00 – 10:00

■ ▲	**Art Gallery Talks** - What it Means to Wonder - Life Twitter Live: Internet of everyday objects or places - Sweet Home	**Exhibitor Tech Talk Stage**

09:00 – 10:45

■	**Courses** What's Next? The Fourth Generation of Computer Graphics (2010-2025)	**Theater 1**

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Symposium on Apps** **Room S221**
Creativity with ARTags; a Mobile Augmented Reality App for Android

■ **Technical Papers** **Convention Hall B**
Material Editing
- Material Matting
- Physically-Based Interactive Bi-Scale Material Design
- AppGen: Interactive Material Modeling from a Single Image
- AppWarp: Retargeting Measured Materials by Appearance-Space Warping

■ **Technical Papers** **Convention Hall C**
3D Capture and Reconstruction
- Online Reconstruction of 3D Objects from Arbitrary Cross-Sections
- Fusion of Depth Maps with Multiple Scales
- Global Parametrization of Range Image Sets

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Technical Sketches** **Room S225**
Texture & Terrain Rendering
- Fast Multiresolution Terrain Rendering with Symmetric Cluster Sets
- Non-Local Image Reconstruction for Efficient Bidirectional Texture Function (BTF) Synthesis
- A Space Efficient and Hardware Friendly Implementation of Ptex
- Flexible Texture Compression Using Bounded Integer Sequence Encoding

09:00 – 12:45

■▲ **Computer Animation Festival** **Theater 2**
Animation Theater Screening

■ **Courses** **Room S222**
GPU Shaders for OpenGL 4.0

■ **Courses** **Room S226**
Cross-Cultural User-Experience Design

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

10:00 – 10:40

■▲ **Emerging Technologies Talks** — **Exhibitor Tech Talk Stage**
- The Octagon
- Mobie: A Movie Brain Interactive Editor

10:00 – 11:00

■▲E **Get Involved** — **SIGGRAPH Asia 2012 Booth, Convention Hall Foyer**

10:00 – 17:00

■▲ **Exhibitor Sessions** — **Room S228**
The Khronos Group Inc - Khronos "DevU" Educational Sessions

10:00 – 18:00

■▲ **Exhibitor Sessions** — **Room S227**
Autodesk Asia Pte Ltd – Don't Blend In. Stand Out with Autodesk Digital Entertainment Creation Solutions

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

11:00 – 12:00

■ ▲ E **Exhibitor Sessions** — **Convention Hall A**
Pixar Animation Studios – "Pixar's RenderMan 2011 Roadmap"
La Luna, Cars 2, and the Latest Rendering Technologies

11:00 – 12:30

■ ▲ **Featured Speakers** — **Theater 1**
More than what the Eye Sees: Interaction and Graphics
Bill Buxton, Microsoft Research

11:00 – 12:45

■ **Technical Papers** — **Convention Hall B**
Shading and Shadows
- Image-based Bidirectional Scene Reprojection
- A Shading Reuse Method for Efficient Micropolygon Ray Tracing
- Genetic Programming for Shader Simplification
- An Efficient Alias-free Shadow Algorithm for Opaque and Transparent Objects using per-triangle Shadow Volumes

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Technical Sketches** — **Room S225**
Production and Visual Effects
- Stretchable Cartoon Editing for Skeletal Captured Animations
- Free Fall Motion Synthesis
- Extinction Transmittance Maps
- Distribution-Aware Image Color Transfer

11:00 – 13:00

■ ▲ E **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
Contact Singapore – Work in Singapore – Global Opportunities in the Interactive & Digital Media Sector

13:00 – 14:00

■ ▲ **Computer Animation Festival - Production Sessions** — **Theater 2**
Coming Full Circle with Transformers

13:00 – 15:00

■ ▲ E **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
The White Rabbit Animation Inc. – TWR3D – A Fast and Cost-effective 2D to 3D Conversion Workflow for Theatrical Content

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

13:30 – 15:00

■▲ **Poster Presentations** — **Convention Hall Foyer**

14:15 – 15:00

■ **Symposium on Apps** — **Room S221**
Back to Hardware: Introducing "Mobile Mates" for Health

14:15 – 16:00

■ **Special Sessions** — **Theater 1**
Puss in Boots: India's Role in the Making of an Animated Blockbuster

■ **Technical Papers** — **Convention Hall B**
Image Mix and Match
- Data-driven Visual Similarity for Cross-domain Image Matching
- Arcimboldo-like Collage Using Internet Images
- Semantic Colorization with Internet Images
- Rendering Synthetic Objects into Legacy Photographs

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Technical Papers** **Convention Hall C**

Rendering: Accuracy and Efficiency

- Displacement Interpolation Using Lagrangian Mass Transport
- Adaptive Sampling and Reconstruction using Greedy Error Minimization
- T&I Engine: Traversal and Intersection Engine for Hardware Accelerated Ray Tracing
- Coherent Parallel Hashing

■ **Technical Sketches** **Room S225**

Animation

- Video-Based Toon Character from Surface Performance Capture
- Screen Space Animation of Fire
- Spline Motion Transitions in Linear Subspaces
- An Efficient Calculation Method of Spherical Signed Distance Functions for Real-Time Rendering

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

14:15 – 16:45

■▲ **Computer Animation Festival** — **Theater 2**
Animation Theater Screening

14:15 – 18:00

■ **Courses** — **Room S222**
FCam: An architecture and API for computational cameras

■ **Courses** — **Room S226**
Information Theory in Computer Graphics and Visualization

15:00 – 16:00

■▲E **Exhibitor Sessions** — **Convention Hall A**
Pixar Animation Studios – "Pixar's RenderMan 2011 Roadmap"
La Luna, Cars 2, and the Latest Rendering Technologies

15:00 – 17:00

■▲E **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
MTECH Engineering – Serious Factory – How 3D could serve your marketing strategy

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

15:15 – 16:00

■ **Symposium on Apps** — **Room S221**
"Power" and energy of Visual Computing

15:30 – 16:30

■ ▲ E **Get Involved** — **SIGGRAPH Asia 2012 Booth, Convention Hall Foyer**

16:00 – 19:00

■ ▲ **Exhibitor Sessions** — **Room S224**
Chaos Group – V-Ray® 2.0 for 3DS MAX and MAYA – The Latest Trendsetting Rendering Technologies by Chaos Group

16:15 – 18:00

■ **Symposium on Apps** — **Room S221**
Mobile 2.0 - The Future of Mobile Apps: Mashing It Up and Getting It Out There!

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Technical Papers** **Convention Hall C**

Shape & Vector Representations
- Freeform Vector Graphics with Controlled Thin-plate Splines
- Multiscale Vector Volumes
- Slices: A Shape-Proxy Based on Planar Sections
- Coons BVH for Freeform Geometric Models

■ **Technical Sketches** **Room S225**

User Interaction
- Ambient Wall
- Interactive Climbing Route Design Using a Simulated Virtual Climber
- A Sketch-based Interface to Script Comics Reading
- VolVision

16:15 – 18:25

■ **Technical Papers** **Convention Hall B**

Animation
- Artist-Friendly Facial Animation Retargeting
- Controlling Physics-based Characters using Soft Contacts
- Compression and Direct Manipulation of Complex Blendshape Models

Wednesday, 14 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

- Modal-Space Control for Articulated Characters
- Stretchable and Twistable Bones for Skeletal Shape Deformation

19:00 – 21:00

■ **Computer Animation Festival** — **Theater 1**
Electronic Theater Screening

19:00 – 23:00

■▲ **Exhibitor Sessions** — **Convention Hall C**
Side Effects Software – Houdini User Group Event

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

08:00 – 18:30

	Registration	**Ground Floor, Harbour Road Entrance**
	SIGGRAPH Asia Merchandise Store	**Mezzanine**

09:00 – 18:00

■ ▲ E	**Exhibition**	**Hall 3G**
■ ▲	**Posters Exhibition**	**Convention Hall Foyer**

09:00 – 10:20

■ ▲	**Art Gallery Talks** - Urban Spirits, a digital street art creation - We are Movement - Future architechture in Asia - The future of Creative Industry	**Exhibitor Tech Talk Stage**

09:00 – 10:45

■ ▲	**Education Panel** Approaches and Challenges towards Animation Education The following networking reception is sponsored by Media Design School	**Room S221**

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gallery guide

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Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Technical Papers** **Convention Hall B**

Cameras and Appearance
- Practical Spectral Characterization of Trichromatic Cameras
- Single View Reflectance Capture Using Multiplexed Scattering and Time-of-Flight Imaging
- Estimating Dual-scale Properties of Glossy Surfaces from Step-edge Lighting
- Interactive Hair Rendering and Appearance Editing under Environment Lighting

■ **Technical Sketches** **Room S225**

Image Processing
- Tangible Images
- Effective Despeckling of High Dynamic Range (HDR) Images
- Interactive 2D and Volume Image Segmentation Using Level Sets of Probabilities
- Translucent Material Transfer Based on Single Images

09:00 – 12:45

■▲ **Computer Animation Festival** **Theater 2**

Animation Theater Screening

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Courses** **Room S226**
Introduction to Networked Graphics

■ **Courses** **Convention Hall C**
Elements of Geometry Processing

09:00 – 18:00

■ **Courses** **Room S222**
Multidimensional Image Retargeting

10:00 – 17:00

■▲ **Exhibitor Sessions** **Room S228**
The Khronos Group Inc - Khronos "DevU" Educational Sessions

10:00 – 18:00

■▲ **Exhibitor Sessions** **Room S227**
Autodesk Asia Pte Ltd – Don't Blend In. Stand Out with Autodesk Digital Entertainment Creation Solutions

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

10:20 – 12:40

■▲ **Emerging Technologies Talks** — **Exhibitor Tech Talk Stage**

- Joyman: A Human-Scale Joystick for Navigating in Virtual Worlds
- Throwable Panoramic Ball Camera
- Polychrome Paper Computing
- Ungrounded Handheld Device for Simulating High-Forces of Ball Impacts in Virtual Tennis
- Visual Tactile Integration for Tickling
- EaTheremin
- Be your avatar: real-time facial animation using the Kinect

11:00 – 12:00

■▲E **Exhibitor Sessions** — **Convention Hall A**

Pixar Animation Studios – "Pixar's RenderMan 2011 Roadmap"
La Luna, Cars 2, and the Latest Rendering Technologies

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

11:00 – 12:45

■ **Technical Papers** **Convention Hall B**
Image Processing
- Image Smoothing via L0 Gradient Minimization
- Convolution Pyramids
- GPU-Efficient Recursive Filtering and Summed-Area Tables
- Multigrid and Multilevel Preconditioners for Computational Photography

■ **Technical Sketches** **Room S225**
Image System & Video Processing
- Scalable Motion-Aware Panoramic Videos
- A System for Editing Sky Images Using an Image Database
- Face Recognition and Clustering for Home Photos
- Stereoscopic 3D Experience Optimization Using Cropping and Warping

11:15 – 12:30

■ **Featured Speakers** **Theater 1**
The Future of Computer Graphics
Ken Perlin, New York University

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

13:00 – 14:00

■▲ **Computer Animation Festival - Production Sessions** — **Theater 2**
Star Wars: The Clone Wars – A Rigging Challenge

13:00 – 15:00

■▲E **Exhibitor Tech Talks** — **Exhibitor Tech Talk Stage**
Lucasfilm Singapore – Looking and Seeing… Differently

14:15 – 16:00

■▲ **Special Sessions** — **Theater 1**
Harry Potter and the Deathly Hallows Part 2

■ **Technical Papers** — **Convention Hall B**
Light Transport
- Modular Radiance Transfer
- LightSlice: Matrix Slice Sampling for the Many-Lights Problem
- Practical Filtering for Efficient Ray-traced Directional Occlusion
- Progressive Photon Beams

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

■ **Technical Papers** **Convention Hall C**

Architectural Design and Analysis
- InSitu: Sketching Architectural Designs in Context
- Structure-preserving Retargeting of Irregular 3D Architecture
- Adaptive Partitioning of Urban Facades
- Conjoining Gestalt Rules for Abstraction of Architectural Drawings

■ **Technical Sketches** **Room S225**

Virtual and Augmented Reality
- Towards Hairstyle Reconstruction Using Thermal Imaging
- Enabling On-Set Stereoscopic Mixed Reality (MR)-Based Previsualization for 3D Filmmaking
- A Practical Visualization Strategy for Large-Scale Supernovae Computational Fluid Dynamics (CFD) Simulations
- Hardware Instancing for Real-Time Realistic Forest Rendering

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

14:15 – 16:45

■▲ **Computer Animation Festival** — **Theater 2**
Animation Theater Screening

14:15 – 18:00

■ **Courses** — **Room S226**
Advanced Textural Representation of Materials Appearance

15:00 – 15:40

■▲ **Emerging Technologies Talks** — **Exhibitor Tech Talk Stage**
- 360-Degree Fog Projection Interactive Display
- FoodGenie: Play with your food

15:00 – 16:00

■▲**E** **Exhibitor Sessions** — **Convention Hall A**
Pixar Animation Studios – "Pixar's RenderMan 2011 Roadmap"
La Luna, Cars 2, and the Latest Rendering Technologies

Thursday, 15 December

■ Full Conference/Full Conference One-Day
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15:40 – 17:00

■▲ **Art Gallery Talks** — **Exhibitor Tech Talk Stage**
- Time of Doubles
- MIROIR : the Creation of an Antropomorphic Augmented Reality Installation
- Mont
- Trembling Creatures by Cyland Media Art Lab

16:15 – 18:00

■ **Computer Animation Festival** — **Theater 1**
Electronic Theater Screening

■ **Technical Sketches** — **Room S225**
Art, Design & Computer Graphics Education
- Fractal Strokes
- 3D Animation Education in the US and Japan
- Procedural Modeling of Pebble Mosaics
- Synthesizing Rope Patterns of Jomon Ware in a Virtual Space

Thursday, 15 December

■ Full Conference/Full Conference One-Day
▲ Basic Conference
E Exhibits Only

16:15 – 18:25

■ **Technical Papers** **Convention Hall B**
Stereo and Light Fields
- Polarization Fields: Dynamic Light Field Display Using Multi-Layer Liquid Crystal Displays
- Computing and Fabricating Multilayer Models
- C1x6: A Stereoscopic Six-User Display for Co-located Collaboration in Shared Virtual Environments
- OSCAM - Optimized Stereoscopic Camera Control for Interactive 3D
- Multi-perspective Stereoscopy from Light Fields

19:00 – 21:00

■ **Computer Animation Festival** **Theater 1**
Electronic Theater Screening

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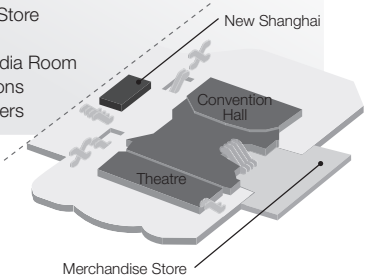
HKCEC Floorplan

- Bookstore
- Computer Animation Festival – Animation Theater
- Computer Animation Festival – Electronic Theater
- Conference Management Office
- Courses
- Exhibitor Sessions
- Featured Speakers
- Merchandise Store
- Posters
- Press and Media Room
- Special Sessions
- Technical Papers

L1



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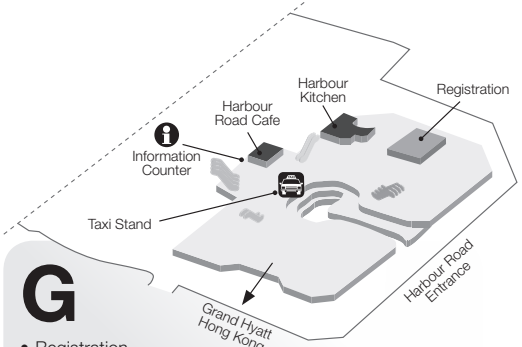
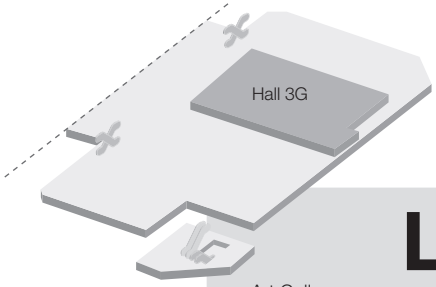
- Registration

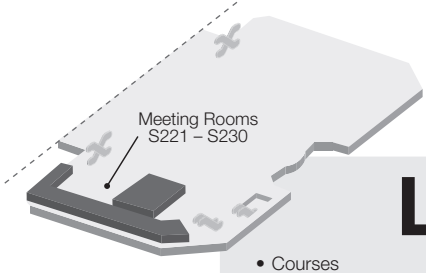


HKCEC Floorplan



L3

- Art Gallery
- Emerging Technologies
- Exhibition
- Exhibition Management Office
- Exhibitor Tech Talks



L2

- Courses
- Exhibitor Sessions
- Speaker Preparation Room
- Symposium on Apps
- Technical Sketches

Notes

Notes

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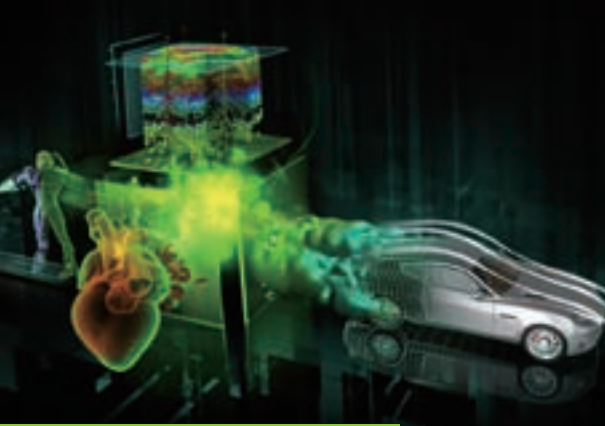

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