SIGGRAPH ASIA2012

The 5th ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia

Embracing the digital convergence

CONFERENCE LOCATOR

CONFERENCE 28 Nov - 1 Dec
EXHIBITION 29 Nov - 1 Dec
Singapore EXPO

Sponsored by ACM SIGGRAPH   Supported by   Held in

www.SIGGRAPH.org/ASIA2012

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Program/Event Name	Hashtags
Art Gallery	#SIGGRAPHAsia #artgallery
Computer Animation Festival	#SIGGRAPHAsia #caf
Courses	#SIGGRAPHAsia #courses
Emerging Technologies	#SIGGRAPHAsia #etech
Exhibition	#SIGGRAPHAsia #exhibits
Exhibitor Talks & Sessions	#SIGGRAPHAsia #talks #sessions
Featured Speakers	#SIGGRAPHAsia #speakers
Posters	#SIGGRAPHAsia #posters
Special Sessions	#SIGGRAPHAsia #specialsessions
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Symposium on Apps	#SIGGRAPHAsia #symposium
Technical Briefs	#SIGGRAPHAsia #techbriefs
Technical Papers	#SIGGRAPHAsia #techpapers

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Merchandise and Publications: MAX Atria, Level 2

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Art Gallery and Emerging Technologies, MAX Atria Foyer, Level 1

Thursday, 29 November 2012	10:00-18:00
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Conference: MAX Atria, Level 2

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Bookstore: MAX Atria, Level 2

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Speaker Preparation Room: Opal 102, Level 1

Tuesday, 27 November 2012	14:00-19:00
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Conference Management Office: Opal 101, Level 1

Wednesday, 28 November 2012	08:00-19:00
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Exhibition Management Office: Exhibition Hall 2B, Level 1

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Exhibition: Exhibition Hall 2B, Level 1

Thursday, 29 November 2012	10:00-18:00
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Conference Policies

• Children under 16 are not permitted in the Exhibition. Age verification is required.
• Registered conference attendees under the age of 16 must be accompanied by an adult at all times.
• SIGGRAPH Asia 2012 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 2012 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 2012 conference documentation and pre-purchased merchandise will not be shipped, nor will refunds be given for any material not picked up.

Camera/Recording Policies

No cameras or recording devices are permitted at SIGGRAPH Asia 2012. Abuse of this policy will result in revocation of the individual's registration credentials.

SIGGRAPH Asia 2012 employs a professional photographer and reserves the right to use all images that this photographer takes during the conference and exhibition for publication and promotion of future ACM SIGGRAPH events.

General Information

ACM Transactions on Graphics

The printed ACM Transactions on Graphics (Conference Proceedings Special Issue) contains the Technical Papers. ACM Transactions on Graphics (Conference Proceedings Special Issue) was available for purchase online through the SIGGRAPH Asia 2012 registration system on or before 15 October. There will be no sales of onsite copies. ACM Transactions on Graphics can be purchased through ACM's e-store at **http://store.acm.org** post-conference.

Accessibility

Located next to Changi Airport and well-connected by major highways, Singapore EXPO Convention and Exhibition Centre is also accessible by train via a dedicated MRT station.

By Taxi:
There are numerous taxis available in Singapore that offer reliable service. To book a taxi, you may call any of the major taxi companies here in Singapore:

• Comfort and City Cab: +65 6552 1111
• Maxi Cab: +65 6535 3534
• Premier Taxis: +65 6476 8880
• SMRT Taxis: +65 6555 8888

There is an additional surcharge of S$2 for all taxis departing from the Singapore EXPO.

By Train – Mass Rapid Transit (MRT) Line:
Singapore EXPO is served by its own station, Expo MRT station. To get to Singapore EXPO from Changi Airport, take the east bound train. It is just one stop from Changi Airport MRT and the journey lasts only four minutes.

If you are coming from other parts of Singapore, transfer trains at Tanah Merah station (on the East West line) where the train will take you to Expo MRT in three minutes.

Bookstore
MAX Atria, Level 2

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 2012.

Business Centre

Conveniently located at Foyer 1, Level 1, the Expo Business Centre opens during weekdays from 09:00 to 18:00 and Saturdays from 09:00 to 13:00.

IT and telecommunication solutions include analogue, ISDN, international and local lease lines, high-speed internet access, secretarial services including printing, faxing, photocopying, etc. Baggage storage is available for hand carried bags and suitcases.

Contacts at Expo Business Centre:

Email: expobizctr@starhub.com
Hotline: 1800 822 3333
Fax: +65 6822 6002

Cafeteria/Restaurants

A variety of restaurants and bars under the heading Flavours East are available within Singapore EXPO. Exotic cuisines ranging from North Indian and Thai to traditional Chinese dining and fast food are all available within the convention and exhibition centre.

Child Care

Child care will not be provided at SIGGRAPH Asia 2012. Contact your hotel concierge for suggestions.

Conference Management Office
Opal 101, Level 1

If you have questions regarding SIGGRAPH Asia 2012, stop by this office anytime during conference hours.

Exhibition Management Office
Exhibition Hall 2B, Level 1

Exhibition management representatives are available during exhibition opening hours to meet with exhibitors and help with plans for exhibiting at SIGGRAPH Asia 2013.

Lost and Found
Conference Management Office, Opal 101, Level 1

To inquire about lost items during the conference, please proceed to the Conference 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 Singapore EXPO Convention and Exhibition Centre. Alternatively, Singapore EXPO's concierge team is available at MAX Atria, Level 1.

Merchandise and Publications

Conference documentation included with your registration must be picked up at the Registration Counter. Pre-purchased conference documentation and merchandise will not be shipped, nor will refunds be given for any material that is not picked up. The Full Conference DVD and other merchandise from SIGGRAPH Asia 2012 and previous conference editions are also available at the Merchandise and Publications Store on Level 2 of MAX Atria.

Parking

Singapore EXPO car park charges for cars and light good vehicles:
• S$2.80 for the first two hours
• Subsequent ½ hour at S$1.30
• The maximum charge is limited to S$16.50 a day.

Parking is free for motorcycles at Singapore EXPO.

Speaker Preparation Room
Opal 102, Level 1

Please pick up your badge, registration credentials, and conference information at the registration counter before proceeding to the Speaker Preparation Room. You can collect your Speaker Ribbons and prepare your presentations at the Speaker Preparation Room.

Wireless Internet Access

Complimentary WiFi is available only within MAX Atria. Free internet connection is not available inside the exhibition hall. Singapore EXPO provides 802.11a/b/g wireless network access within the MAX Atria. To use the wireless network, attendees will need to have their own wireless (802.11a/b/g compatible) equipment.

Scan and select the "wireless@ maxatria" network.

Enter the password to login (password will be provided upon registration).

If exhibitors or attendees require internet access outside of the MAX Atria vicinity, ISDN and high-speed internet access are available (fees apply) at the Expo Business Centre located at Foyer 1, Level 1.

Engage the Speakers! Pigeonhole Live lets you post questions to speakers and vote for questions that others have asked on your mobile web device. With this, speakers can better identify and address your concerns. Now, everyone gets to take part in Q&A sessions without running to the microphones. Yes, even if you are a little shy.

1. Go to **http://phlive.at** on your web device*.

2. Enter passcode   SIGGRAPHASIA

Powered by:

Wednesday, 28 November

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

08:00 – 18:30

Registration	**Foyer 1, Level 1**
SIGGRAPH Asia Merchandise and Publications	**MAX Atria, Level 2**

09:00 – 10:45

■ **Courses**   **Topaz 220**
Method of Induction of Basic and Complex Emotions in Video Games and Virtual Environments

09:00 – 12:45

■ **Courses**   **Topaz 221**
Basic Concepts of Physically-Based Rendering

■ **Courses**   **Peridot 201**
Modern Approaches to Media Retargeting

11:00 – 12:45

■ **Courses**   **Topaz 220**
Projective Geometry and Duality for Graphics, Games and Visualization

Wednesday, 28 November

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

13:15 – 17:00

- **Courses** **Peridot 201**
  Taming Render Times at Pixar:
  CPU & GPU, Brave and Beyond

17:15 – 18:30

- **Courses** **Peridot 201**
  How to Write a SIGGRAPH
  Paper: A Guide to Choosing a
  Good Research Topic, Doing the
  Research, and Writing it Up

18:45 – 20:00

- ▲ Technical Papers Fast Forward **Garnet 217**

Thursday, 29 November

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

08:00 – 18:30

Registration	**Foyer 1, Level 1**
SIGGRAPH Asia Merchandise and Publications	**MAX Atria, Level 2**

09:00 – 18:00

■ ▲	**Posters Exhibition**	**MAX Atria, Level 2**

09:00 – 10:45

■	**Courses** GPU Computing for Graphics	**Topaz 221**
■	**Courses** Quaternion Applications	**Topaz 220**
■	**Technical Briefs** Animation	**Garnet 219**

- Visual Simulation of Freezing Ice with Air Bubbles
- Automatic Shape Morphing for Chinese Characters
- Latent Irregular Splines for Animation Approximation
- Region Matching with Proxy Ellipses for Coloring Hand-Drawn Animations
- Adaptive Dynamics with Hybrid Response

Thursday, 29 November

■	**Technical Papers**	**Peridot 206**

Physical Models
- Motion-Guided Mechanical Toy Modeling
- Recursive Interlocking Puzzles
- Chopper: Partitioning Models into 3D-Printable Parts
- 3D-Printing of Non-Assembly, Articulated Models

■	**Technical Papers**	**Peridot 201**

Operating on Images
- Quality Prediction for Image Completion
- Manifold Preserving Edit Propagation
- Sparse PDF Maps for Non-Linear Multi-Resolution Image Operations
- DressUP! Outfit Synthesis Through Automatic Optimization

09:00 – 12:45

■▲	**Animation Theater**	**Concourse**

10:00 – 18:00

■▲ E	**Exhibition**	**Exhibition Hall 2B, Level 1**

Thursday, 29 November

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

■▲	**Art Gallery**	**MAX Atria Foyer, Level 1**
■▲	**Emerging Technologies**	**MAX Atria Foyer, Level 1**

10:00 – 10:45

■▲ E	**Exhibitor Session** NVIDIA Corporation OpenSubdiv: Open Source GPU Rendering of Subdivision Surfaces	**Conference Hall K**

11:00 – 11:45

■▲ E	**Exhibitor Session** NVIDIA Corporation OpenGL 4.3 and Beyond	**Conference Hall K**

11:00 – 12:00

■▲ E	**Exhibitor Session** Pixar Animation Studios RenderMan 2012 – A Brave New World: An Overview of Pixar's Latest Rendering Technology	**Conference Hall G – J**

Thursday, 29 November

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

11:00 – 12:45

■ **Featured Speakers**	**Garnet 217**

Featured Speakers   **Garnet 217**
How Research is Changing Our
Lives: MP3 and More
Karlheinz Brandenburg,
Fraunhofer Institute for Digital
Media Technology IDMT

■▲ **Birds of a Feather**   **Topaz 220**
Pipeline & Tools

12:00 – 12:45

■▲ E **Exhibitor Session**   **Conference Hall K**
NVIDIA Corporation
Current Trends in Advanced GPU
Rendering

13:00 – 13:45

■▲ E **Exhibitor Session**   **Conference Hall K**
NVIDIA Corporation
Accelerating Mobile Augmented
Reality

13:00 – 14:00

■▲ **Computer Animation Festival -**   **Concourse**
Production Session
The Visual Effects of The Avengers

Thursday, 29 November

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

| ■▲ **Poster Presentation** | **Max Atria, Level 2** |

14:00 – 14:45

| ■▲ E **Exhibitor Session** | **Conference Hall K** |

NVIDIA Corporation
Simplifying the Motion Graphics
Workflow – GPU-Accelerated 3D
Ray-Tracing in Adobe After Effects

14:00 – 16:00

■▲ E **Exhibitor Talk**	**Hall 2B, Level 1**
	Exhibitor Talk
	Stage

SCAD Hong Kong
SCAD & Partnerships – Introducing
Elements of Art & Design &
Innovation into Businesses

14:15 – 16:00

| ■▲ **Special Sessions** | **Garnet 217** |

Prometheus: A VFX Journey to an
Alien Planet

Thursday, 29 November

- ■ Full Conference/Full Conference One-Day
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■ **Technical Briefs**   **Garnet 219**

Imaging and Video

- Edge-Preserving Image
  Decomposition using L1 Fidelity
  with L0 Gradient
- Video Enhanced Gigapixel
  Panoramas
- Gradient Domain Salience-
  preserving Color-to-gray
  Conversion
- Optimized Anaglyph
  Colorization
- GPU-based Local-dimming for
  Power-efficient Imaging

■ **Technical Papers**   **Peridot 206**

Acquiring and Synthesizing Indoor
Scenes

- Example-based Synthesis of 3D
  Object Arrangements
- An Interactive Approach to
  Semantic Modeling of Indoor
  Scenes with an RGBD Camera
- A Search-Classify Approach
  for Cluttered Indoor Scene
  Understanding
- Acquiring 3D Indoor
  Environments with Variability
  and Repetition

Thursday, 29 November

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

■ **Technical Papers**　　　　　　　　**Peridot 201**
　Comics, Texture and Scribbles
- Structure Extraction from
　Texture via Relative Total
　Variation
- Digital Reconstruction of
　Halftoned Color Comics
- Automatic Stylistic Manga
　Layout
- Lazy Selection: A Scribble-
　based Tool for Smart Shape
　Elements Selection

14:15 – 18:00

■ **Courses**　　　　　　　　　　**Garnet 212**
　Advances in New Interfaces for
　Musical Expressions

■ **Courses**　　　　　　　　　　**Topaz 220**
　Previsualisation: Assisting
　Filmmakers in Realizing their Vision

■ ▲ **Animation Theater**　　　　　　**Concourse**

Thursday, 29 November

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

15:00 – 15:45

■▲ E **Exhibitor Session**
NVIDIA Corporation
Scaling OpenGL Applications
Across Multiple GPU's

Conference Hall K

15:00 – 16:00

■▲ E **Exhibitor Session**
Pixar Animation Studios
RenderMan 2012 – A Brave New
World: An Overview of Pixar's
Latest Rendering Technology

Conference Hall
G – J

16:00 – 16:45

■▲ E **Exhibitor Session**
NVIDIA Corporation
Mixing Graphics and Compute

Conference Hall K

16:00 – 18:00

■▲ E **Exhibitor Talk**
EON Reality
Interactive 3D Virtual and
Augmented Reality

Hall 2B, Level 1
Exhibitor Talk
Stage

Thursday, 29 November

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

16:15 – 18:00

■ **Courses** Advanced OpenGL for DirectX Programmers	**Topaz 221**

■ **Technical Briefs** Virtual Environment & Interaction	**Garnet 219**

- MRsionCase: A Glasses-free Mixed Reality Showcase for Surrounding Multiple Viewers
- Robust 2D-3D Matching for 3D Object Pose Detection
- Efficient Rasterization for Edge-Based 3D Object Tracking on Mobile Devices
- Depth-based Real Time Head Pose Tracking Using 3D Template Matching
- Haptic Editor: Creation and Editing System for Touchable 3D Content

Thursday, 29 November

16:15 – 18:15

■ **Technical Papers**   **Peridot 206**
Materials and Images
- Material Memex: Automatic Material Suggestions for 3D Objects
- Interactive Bi-scale Editing of Highly Glossy Materials
- An Inverse Problem Approach for Automatically Adjusting the Parameters for Rendering Clouds Using Photographs
- Lighting Hair From The Inside: A Thermal Approach To Hair Reconstruction
- New Measurements Reveal Weaknesses of Image Quality Metrics in Evaluating Graphics Artifacts

Thursday, 29 November

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

■ **Technical Papers**   **Peridot 201**
Dynamics
- Large-Scale Fluid Simulation using Velocity-Vorticity Domain Decomposition
- Staggered Meshless Solid-Fluid Coupling
- Automated Constraint Placement to Maintain Pile Shape
- Speculative Parallel Asynchronous Contact Mechanics
- Adaptive Anisotropic Remeshing for Cloth Simulation

19:00 – 21:00

■ **Electronic Theater**   **Garnet 217**

19:00 – 22:30

■ **SIGGRAPH Asia 2012 Networking Reception (Ticketed Access)**   **MAX Atria Foyer, Level 1**

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08:00 – 18:30

Registration	**Foyer 1, Level 1**
SIGGRAPH Asia Merchandise and Publications	**MAX Atria, Level 2**

09:00 – 18:00

■▲ **Posters Exhibition**   **MAX Atria, Level 2**

■▲ **Animation Theater**   **Concourse**

09:00 – 10:45

■ **Courses**   **Topaz 221**
Fitness for Use: Introduction to Professional Standards in Modeling

■ **Courses**   **Topaz 220**
Story Structure for Programmers, Game Designers and Artists

Friday, 30 November

■ **Technical Briefs**   **Garnet 219**
Rendering
- Realtime Animation and
  Rendering of Ocean Whitecaps
- A Time Series 3D Hierarchy for
  Real-Time Dynamic Point Cloud
  Interaction
- Real or Fake? Human
  Judgments About Photographs
  and Computer-generated
  Images of Faces
- A 2.5D Culling for Forward+
- Stroke-based Real-time Ink
  Wash Painting Style Rendering
  for 3D Models

■ **Technical Papers**   **Peridot 206**
Full-Body Character Animation
- Generative Statistical Models
  for Semantic Motion Analysis
  and Synthesis
- Terrain Runner: Control,
  Parameterization, Composition,
  and Planning for Highly
  Dynamic Motions
- Falling and Landing Motion
  Control for Character
  Animation
- Synthesis of Concurrent Object
  Manipulation Tasks

Friday, 30 November

- ■ Full Conference/Full Conference One-Day
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- **E** Exhibits Only

■	**Technical Papers**	**Peridot 201**

Sculpting, Stacking, Structure and
Boxes
- Sculpting by Numbers
- Stackabilization
- Structural Optimization of 3D
  Masonry Buildings
- Fast oriented bounding box
  optimization on the rotation
  group SO (3, R)

■▲	**Education Panel**	**Garnet 212**

Building Partnerships Between
Industry and Academic Institutions

10:00 – 10:45

■▲ E	**Exhibitor Session**	**Conference Hall K**

NVIDIA Corporation
Simplifying the Motion Graphics
Workflow – GPU-Accelerated 3D
Raytracing in Adobe After Effects

10:00 – 18:00

■▲ E	**Exhibition**	**Exhibition Hall 2B, Level 1**

■▲	**Art Gallery**	**MAX Atria Foyer, Level 1**

Friday, 30 November

- ■ Full Conference/Full Conference One-Day
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- **E** Exhibits Only

■▲	**Emerging Technologies**	**MAX Atria Foyer, Level 1**

11:00 – 11:45

■▲ E	**Exhibitor Session** NVIDIA Corporation Developing an Optimized Maya Plugin Using CUDA and OpenGL	**Conference Hall K**

11:00 – 12:00

■▲ E	**Exhibitor Session** Pixar Animation Studios RenderMan 2012 - A Brave New World: An Overview of Pixar's Latest Rendering Technology	**Conference Hall G – J**
■▲ E	**Recruitment Talk** PIXOMONDO Global Talent Worldwide	**Hall 2B, Level 1 Exhibitor Talk Stage**

11:00 – 12:45

■▲	**Birds of a Feather** Blender Foundation - Artist Showcase	**Topaz 220**

Friday, 30 November

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

■▲   **Emerging Technologies Talks**   **Garnet 219**
- Cryptone: Interaction between Performers and Audiences With Inaudible DTMF Sounds
- Flying Head: Head-synchronized Robot Control for Flying Telepresence
- RoboJockey: Robotic Dance Entertainment for All
- CursorCamouflage: Multiple Dummy Cursors as A Defense against Shoulder Surfing

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11:00 – 13:00

■   **Technical Papers**   **Peridot 206**
GPU's and Rendering
- Depth-Presorted Triangle Lists
- Softshell: Dynamic Scheduling on GPUs
- High-Quality Curve Rendering using Line Sampled Visibility
- Axis-Aligned Filtering for Interactive Sampled Soft Shadows
- Foveated 3D Graphics

Friday, 30 November

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

■ **Technical Papers**   **Peridot 201**
Shape Sets and Trees
- Active Co-Analysis of a Set of Shapes
- Co-Abstraction of Shape Collections
- An Optimization Approach for Extracting and Encoding Consistent Maps
- Inverse Design of Urban Procedural Models
- Capturing and Animating the Morphogenesis of Polygonal Tree Models

12:00 – 12:45

■▲ E **Exhibitor Session**   **Conference Hall K**
NVIDIA Corporation
What's New in CUDA 5

12:00 – 13:00

■▲ E **Recruitment Talk**   **Hall 2B, Level 1**
Animal Logic's Recruitment Talk   **Exhibitor Talk**
                                              Stage

13:00 – 13:45

■▲ E **Recruitment Talk**   **Hall 2B, Level 1**
Double Negative   **Exhibitor Talk**
                                              Stage

Friday, 30 November

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

■▲ E	**Exhibitor Session** NVIDIA Corporation OpenGL ES Performance Tools and Optimization for Tegra Mobile Devices	**Conference Hall K**

13:00 – 14:00

■▲	**Poster Presentation**	**Max Atria, Level 2**

14:00 – 14:45

■▲ E	**Recruitment Talk** Contact Singapore Work in Singapore – Global Opportunities in the Interactive & Digital Media Sector	**Hall 2B, Level 1** **Exhibitor Talk** **Stage**
■▲ E	**Exhibitor Session** NVIDIA Corporation Visual Computing for Computational Photography and Computer Vision	**Conference Hall K**

14:15 – 16:00

■▲	**Special Sessions** The Visual Effects of "The Dark Knight Rises"	**Garnet 217**

Friday, 30 November

■▲ **Emerging Technologies Talks**   **Topaz 220**
- Skeletouch: Transparent Electro-Tactile Display for Mobile Surfaces
- Tagtool - A Collaborative Virtual Workspace for Visual Expression
- Augmented Satiety: Interactive Nutritional Intake Controller
- Dynamic Stereograms based on Eye Convergence for Displaying Multilayered Images
- Sound Perfume: Building Positive and Memorable Impression During Face-to-Face Communication
- Mixed Reality Mirror Display

Friday, 30 November

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

■ **Technical Briefs** **Garnet 219**
Modeling
- 3D Diff: An Interactive
  Approach to Mesh Differencing
  and Conflict Resolution
- Adaptive Maximal Poisson-Disk
  Sampling on Surfaces
- Dynamic 3-D Facial
  Compression Using Low Rank
  and Sparse Decomposition
- Computing Defect-Insensitive
  Geodesic Distance on Broken
  Meshes
- Basic Level Scene
  Understanding: From Labels to
  Structure and Beyond

■ **Technical Papers** **Peridot 206**
Points and Vectors
- Analysis and Synthesis of Point
  Distributions based on Pair
  Correlation
- Blue Noise through Optimal
  Transport
- GPU-accelerated Path
  Rendering
- A Vectorial Solver for Free-form
  Vector Gradients

Friday, 30 November

■   **Technical Papers**   **Peridot 201**
Video and Image Manipulation
- Gaze Correction for Home
  Video Conferencing
- Discontinuity-Aware Video
  Object Cutout
- Video Stabilization using
  Epipolar Geometry
- Transfusive Image Manipulation

14:15 – 18:00

■   **Courses**   **Garnet 212**
Recent Advances in Physically-
Based Appearance Modeling of
Cloth

■   **Courses**   **Garnet 221**
Polarised Light in Computer
Graphics

15:00 – 15:45

■▲E   **Exhibitor Session**   **Conference Hall K**
NVIDIA Corporation
OpenSubdiv: Open Source GPU
Rendering of Subdivision Surfaces

Friday, 30 November

- ■ Full Conference/Full Conference One-Day
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- **E** Exhibits Only

15:00 – 16:00

■ ▲ E	**Recruitment Talk** Industrial Light & Magic Singapore Finding Your Place in the Visual Effects Industry	**Hall 2B, Level 1** **Exhibitor Talk** **Stage**
■ ▲ E	**Exhibitor Session** Pixar Animation Studios RenderMan 2012 – A Brave New World: An Overview of Pixar's Latest Rendering Technology	**Conference Hall** **G – J**

16:00 – 16:45

■ ▲ E	**Exhibitor Session** NVIDIA Corporation Current Trends in Advanced GPU Rendering	**Conference Hall K**

16:00 – 17:00

■ ▲ E	**Recruitment Talk** Oriental DreamWorks and DreamWorks Animation - Overview & Recruitment Talk	**Hall 2B, Level 1** **Exhibitor Talk** **Stage**

Friday, 30 November

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

16:15 – 18:00

■▲ **Special Sessions** **Garnet 217**
The Most Acclaimed Technical
Challenges of Assassin's Creed
III: Real-Time Water Simulation
and High Level Linear Gameplay
Sequences

■ **Technical Briefs** **Garnet 219**
Invited Session: Facial Animation
and Tracking
- The Light Stages and Their
  Application to Photoreal Digital
  Actors
- Measurement and Modeling of
  Detailed Facial Reflectance
- Unconventional Approaches for
  Facial Animation and Tracking
- The Pipeline of Facial
  Animation Fast Forward: The
  NMA Example
- Lip-Synced Character Speech
  Animation with Dominated
  Animeme Models

Friday, 30 November

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

■ ▲ **Emerging Technologies Talks** **Topaz 220**
  - FlickInk: Beyond Pen and Paper
  - 2x3D: Real Time Shader for Simultaneous 2D/3D Hybrid Theater
  - Second Surface: Multi-user Spatial Collaboration System based on Augmented Reality
  - Superimposed Skin Pressure Sensor
  - Interactonia Balloon
  - Backward Compatible Stereoscopic Displays via Temporal Psychovisual Modulation

16:15 – 18:15

■ **Technical Papers** **Peridot 206**
  Generating and Understanding Models
  - All-Hex Meshing using Singularity-Restricted Field
  - Design-Driven Quadrangulation of Closed 3D Curves
  - Field-Guided Registration for Feature-Conforming Shape Composition
  - Structure Recovery by Part Assembly
  - Multi-Scale Partial Intrinsic Symmetry Detection

Friday, 30 November

■ **Technical Papers** **Peridot 201**
Stereo and Displays
- Perspective-Aware Warping for
  Seamless Stereoscopic Image
  Cloning
- Enabling Warping on
  Stereoscopic Images
- A Luminance-Contrast-
  Aware Disparity Model and
  Applications
- Correcting for Optical
  Aberrations using Multilayer
  Displays
- The Magic Lens: Refractive
  Steganography

18:30 – 22:00

■▲ E **Exhibitor Session** **Topaz 221**
Side Effects Software
Houdini Tips & Tricks

19:00 – 21:00

■ **Electronic Theater** **Garnet 217**

The World's Best-Selling Creative Magazine

Saturday, 1 December

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

08:00 – 18:30

Registration	**Foyer 1, Level 1**
SIGGRAPH Asia Merchandise and Publications	**MAX Atria, Level 2**

09:00 – 18:00

■▲	**Posters Exhibition**	**MAX Atria, Level 2**
■▲ E	**Exhibitor Session** The Khronos Group Khronos DevU	**Conference Hall K**

09:00 – 10:45

■▲	**Special Sessions** Production Workflow on 'Hugo': A New Model of International VFX	**Garnet 217**

Saturday, 1 December

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

■	**Technical Papers**	**Peridot 206**

Motion Capture and Synthesis
- Lightweight Binocular Facial Performance Capture under Uncontrolled Lighting
- Accurate Realtime Full-body Performance Capture Using A Single Depth Camera
- Data-driven Finger Motion Synthesis for Gesturing Characters
- A Statistical Similarity Measure for Aggregate Crowd Dynamics

■	**Symposium on Apps**	**Tourmaline 207**

Panel: The Curse of Choice – How Will Users Find My App!?
Supported by MDA - Official Interactive Content Supporter

09:00 – 12:45

■	**Courses**	**Garnet 212**

Depth Cameras for Computer Graphics

■▲	**Animation Theater**	**Concourse**

10:00 – 17:00

■▲ E	**Exhibition**	**Exhibition Hall 2B, Level 1**

Saturday, 1 December

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

■▲	**Art Gallery**	**MAX Atria Foyer, Level 1**
■▲	**Emerging Technologies**	**MAX Atria Foyer, Level 1**

11:00 – 12:00

■▲ E	**Exhibitor Session** Pixar Animation Studios RenderMan 2012 – A Brave New World: An Overview of Pixar's Latest Rendering Technology	**Conference Hall G – J**

11:00 – 12:45

■	**Technical Briefs** Methods and Applications	**Garnet 219**

- Scoring Functions for Automatic Arrangement of Business Interiors
- Real-time Manga-Like Depiction Based on Interpretation of Bodily Movements by Using Kinect
- Automatic Chinese Food Identification and Quantity Estimation
- Using Text N-Grams for Model Suggestions in 3D Scenes

Saturday, 1 December

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

■	**Symposium on Apps**	**Tourmaline 207**

Mobile Graphics Techniques -
Hardware and Software
- Optimizing OpenGL ES
  Applications for Mobile Devices
- Visualizing 3D Models in Aid of
  Public Consultation

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■	**Featured Speakers**	**Garnet 217**

The Rise of Computer Graphics
in Asia
Richard Chuang, Cloudpic

11:00 – 13:00

■	**Technical Papers**	**Peridot 206**

Global Illumination
- A Path Space Extension
  for Robust Light Transport
  Simulation
- Light Transport Simulation
  with Vertex Connection and
  Merging
- Practical Hessian-Based Error
  Control for Irradiance Caching
- SURE-based Optimization
  for Adaptive Sampling and
  Reconstruction
- Adaptive Rendering with Non-
  Local Means Filtering

Saturday, 1 December

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

13:00 – 14:00

■▲ **Computer Animation Festival -**   **Concourse**
Production Session
Visual Effects of Total Recall

14:15 – 16:00

■▲ **Special Sessions**   **Garnet 217**
The Future of Technology
Innovation at Lucasfilm: Crossover
between Games and Films

■ **Technical Briefs**   **Garnet 219**
Invited Session: Computer Vision
Meets Computer Graphics
- An Interactive Editing Tool for
  Correcting Panoramas
- Asset Digitization: Moving
  Beyond Facsimile
- Image-based Clothes
  Animation for Virtual Fitting
- Real-time Contrast Preserving
  Decolorization
- Image Memorability and Visual
  Inception

Saturday, 1 December

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

■ **Technical Papers**   **Peridot 206**
Skinning
  - Elasticity-Inspired Deformers for
    Character Articulation
  - Simulation of Complex
    Nonlinear Elastic Bodies Using
    Lattice Deformers
  - RigMesh: Automatic Rigging
    for Part-Based Shape Modeling
    and Deformation
  - Smooth Skinning
    Decomposition with Rigid Bones

■ **Symposium on Apps**   **Tourmaline 207**
Case Studies: Apps for Museums,
Kids and Tourists
  - Planning and Developing
    Museum Apps for Kids
  - Urban Games: Application of
    Augmented Reality
Supported by MDA - Official
Interactive Content Supporter

14:15 – 18:00

■ **Courses**   **Garnet 212**
Constructing a Stereo Pipeline
from Scratch: Lessons Learned
from Disney's "The Secret of the
Wings"

■▲ **Animation Theater**   **Concourse**

Saturday, 1 December

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

15:00 – 16:00

■ ▲ E Exhibitor Session **Conference Hall**
Pixar Animation Studios **G – J**
RenderMan 2012 – A Brave New
World: An Overview of Pixar's
Latest Rendering Technology

16:15 – 18:00

■ Technical Papers **Peridot 206**
Color and Photos
- User-guided White Balance for
  Mixed Lighting Conditions
- Calibrated Image Appearance
  Reproduction
- Coherent Intrinsic Images from
  Photo Collections
- Robust Patch-based HDR
  Reconstruction of Dynamic
  Scenes

■ Electronic Theater **Garnet 217**

Saturday, 1 December

■ **Symposium on Apps**   **Tourmaline 207**
Mixing Graphics and the Real
World
- Mobile Mixed Reality Interface
  Developments
- GoldFish: Real-world GUI
  Framework for Android
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19:00 – 21:00

■ **Electronic Theater**   **Garnet 217**

Hotel List

Capri by Fraser	3 Changi Business Park Central 1 Singapore 486037 **Tel:** +65 6933 9833 www.capribyfraser.com/properties
iBis on Bencoolen	170 Bencoolen Street Singapore 189657 **Tel:** +65 6593 2888 www.ibishotel.com/gb/hotel-6657-ibis-singapore-on-bencoolen/index.shtml
Landmark Village Hotel	390 Victoria Street Singapore 188061 **Tel:** +65 6297 2828 www.stayfareast.com/hotels/landmark-village-hotel.aspx
PARKROYAL on Beach Road	7500 Beach Road Singapore 199591 **Tel:** +65 6505 5666 www.parkroyalhotels.com/en/hotels/singapore/beach_road/parkroyal/index.html
Swissôtel The Stamford	2 Stamford Road Singapore 178882 **Tel:** +65 6338 8585 www.swissotel.com/hotels/singapore-stamford/
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Narkii.com, the first professional interactive 3D
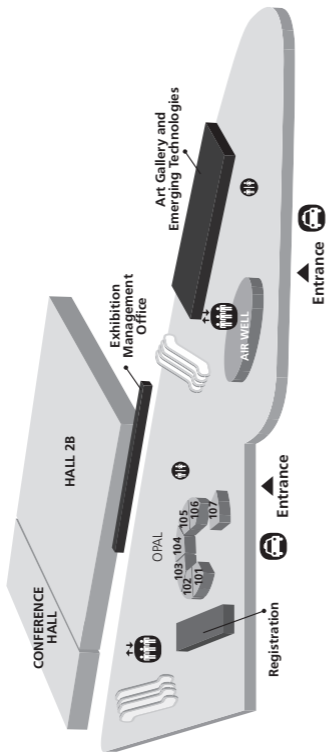content service platform around the world.

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MAX Atria Floorplan

Conference Hall – Exhibitor Sessions
Exhibition Hall 2B – Exhibition and Exhibitor Talks
MAX Atria Foyer – Art Gallery and Emerging Technologies
Opal 101 – Conference Management Office
Opal 102 – Speaker Preparation Room
Opal 103 – Rehearsal Room

Opal 104 – Press and Media Room
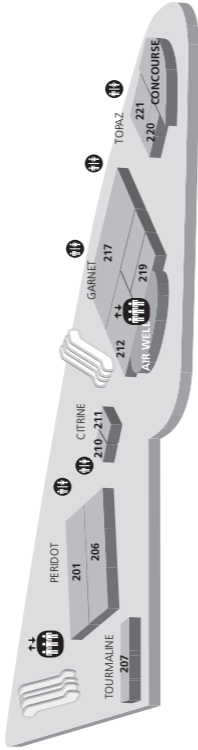**Opal 105** – SCOOP Office
Opal 106 – Student Volunteers Room
Opal 107 – Conference Management Office
Meeting Room

MAX Atria Floorplan

Citrine 210 & 211 – Media Interview Rooms
Concourse – Animation Theater
Garnet 212 – Courses
Garnet 217 – Electronic Theater, Featured Speakers, and Special Sessions
Garnet 219 – Technical Briefs

Peridot 201 – Courses and Technical Papers
Peridot 206 – Technical Papers
Topaz 220 – Courses
Topaz 221 – Courses
Tourmaline 207 – Symposium on Apps

Notes

Future Conference Dates

SIGGRAPH 2013
21 - 25 July 2013
Anaheim Convention Center
USA
s2013.siggraph.org

SIGGRAPH Asia 2013
19 - 22 November 2013
Hong Kong Convention and Exhibition Centre
Hong Kong
sa2013.siggraph.org

To reserve an exhibit space, contact:

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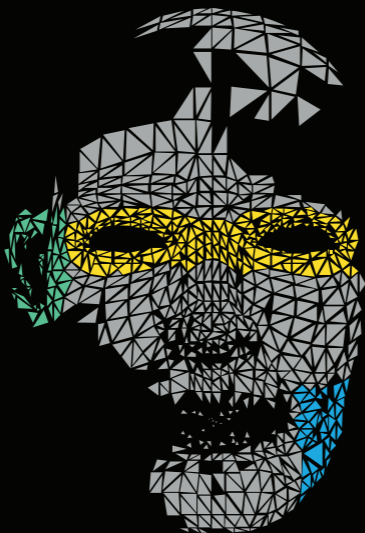For contributor & attendee information, contact:

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