

Press Release

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## Get Ready to See, Touch and Play at SIGGRAPH Asia 2011

**The 4th edition of the annual computer graphics and interactive techniques Conference and Exhibition promises to immerse attendees in the best in animation, human-computer interaction, new media art works as well as speculative ideas, from more than 45 countries across the globe.**

SIGGRAPH Asia 2011 is set to be on the calendars of everyone in the computer graphics and interactive techniques community in Asia. From 12 to 15 December, more than 7,000 artists, designers, researchers, manufacturers, developers as well as trade visitors from across the globe will converge at the Hong Kong Convention and Exhibition Centre in what is to be a celebration of the most excellent works and speculative ideas in the international digital media landscape.

### Asia at the forefront

Setting the stage for a fistful of animation delights is DreamWorks Animation, with its Keynote session on *Kung Fu Panda 2*. Set in a fictional land in ancient China, the animated box-office hit successfully recreated the Chinese landscape and injected an authentic Kung Fu feel to create a landmark hit in the animation world. At SIGGRAPH Asia 2011, Jennifer Yuh Nelson and Raymond Zibach, Director and Production Designer of *Kung Fu Panda 2*, will take audiences through the research process to uncover important cultural elements portrayed in the movie, and the complex animation used to achieve realistic Kung Fu moves.

Asia's rising influence on the computer graphics and digital media industry will indeed feature strongly in this year's SIGGRAPH Asia. Preparations for the highly anticipated fourth edition of the annual ACM SIGGRAPH Conference and Exhibition in Asia are well underway with submissions to the programs officially closed.

"This year, we received several high caliber submissions from institutions all over the world, and choosing the best from the array of noteworthy works was particularly challenging. The final selection was based on the importance of each piece in the field of computer graphics and interactive techniques and how it will help progress the industry both in Asia and globally. We are also delighted to see an increase in the quality of works coming from Asia, affirming the region's rise in the global industry," said Professor Liu Zhi-Qiang, Conference Chair, SIGGRAPH Asia 2011.

Across the event, Asia continues to make its mark, sealing SIGGRAPH Asia's position as a global platform to showcase the region's best innovations and breakthrough ideas to the world. For example, the Technical Papers program saw a record number of 330 submissions, with 40 percent coming from Asia. Notable papers from Asian institutions include:

- *Sketch-based Dynamic Illustration of Fluid Systems*: This paper, presented by **ERATO**, the **National Cerebral and Cardiovascular Center Research Institute, Japan**, **Shiga University of Medical Science** and the **University of Tokyo**, aims to present a lightweight sketching system that enables interactive illustration of complex fluid systems. The system allows users to edit the fluid system incrementally and simulate new internal flow patterns in real time.
- *Multiscale Vector Volumes*: Presented by **Tsinghua University**, **University of Hong Kong**, **Zhejiang University** and **Microsoft Research Asia**, this paper will introduce a compact vector representation for volumetric objects with complex internal structures. The vector representation aims to support fast random access.
- *Adaptive Partitioning of Urban Facades*: Automatically discovering high-level façade structures in unorganized 3D point clouds of urban scenes can be challenging, especially when the input data is of poor quality. In this paper, presented by **Tsinghua University** and the **City University of Hong Kong**, participants will be introduced to the concept of adaptive partitioning to automatically derive a flexible and hierarchical representation of 3D urban facades.

### The future of mankind at work and play

To the delight of many, the Emerging Technologies program is back in the folds of SIGGRAPH Asia. Aptly centred on the theme of "Play", the program seeks to showcase how advancements in computer graphics and innovative techniques are shaping the world of entertainment today. 16 institutions from across the globe, including the **London College of Communication**, **National University of Singapore** and the **University of Osaka**, will take audiences on a sneak peek into the future of human-computer interaction.

Highlights include:

- *360-Degree Fog Projection Interactive Display*: Attendees can walk around a fog display put up by the **University of Osaka**. The display will present a three-dimensional view of an object. Depending on the observer's position, a different outlook can be viewed. The object appears to be floating in mid-air and observers can use their hands and fingers to try to touch or track the object. This display will have possible applications in medicine, engineering and other domains where it is important to view shared 3D content.
- *An Interactive Augmented Reality Coloring Book*: Participants will be provided with blank pages from a coloring book, and coloring pencils that they can use to color the pages with. In this demonstration put up by the **University of Canterbury**, participants can view their colored

works through an Augmented Reality display, watching their artwork pop out of the pages as three-dimensional virtual images. The piece presents a new and intuitive way of creating Augmented Reality content that could be useful in future e-books or computer games.

- *Influncia: Living Life with Sentient Machines*: The **London College of Communication** presents a dozen small color-coded autonomous robots that are programmed to coexist and communicate with participants. The robots are able to sense and respond to the presence of people within the display space. The project simultaneously explores the issues of how machines can sense humans as well as how machines can autonomously interact in a meaningful way with humans. The lessons learned from this display will be useful in future human-machine interactions, an increasingly important topic as robots begin to move into the home and work environment.

### **An immersive experience**

The immersive experience will continue into other Conference areas, where participants are set to hear from leading researchers and industry experts on the latest updates and developments in the field of computer graphics and interactive techniques. For instance, the Courses program will be offering several hands-on sessions that will provide attendees with the opportunity to try out new techniques and software.

In particular, attendees to *Developing Visual Interfaces for Mobile Devices*, led by Associate Professor Benjamin Watson from **North Carolina State University**, Kari Pulli from **NVIDIA** and Vidya Setler from **Nokia Research Centre**, will be able to try out in-class exercises on UI and graphics development for mobile devices. Additionally, the course on *GPU Shaders for OpenGL 4.0*, taught by Dr Mike Baily from **Oregon State University**, and Steve Cunningham from **California State University Stanislaus**, is also expected to be well-attended as each participant will be given free software so that they can immediately apply the techniques discussed in the session.

The Courses Program will also introduce the latest tools for the computer graphics trade, such as the FCam, an Application Programming Interface (API) for camera systems as well as the Time-of-Flight (ToF) depth camera, which will introduce recent advancements of three-dimensional (3D) depth sensing technologies and their potential use in future 3D display. In all, 22 courses will be offered at SIGGRAPH Asia 2011.

"This is the first time that SIGGRAPH Asia is held in Hong Kong, a unique city infused with the perfect juxtapositions of tradition and modernity. As a pioneer in the Asian film industry, hosting SIGGRAPH Asia 2011 is akin to coming full circle for Hong Kong, embracing not only the art of computer animation in Asia, but the technology and innovations behind the scenes. Indeed, SIGGRAPH Asia 2011 in Hong Kong will be a bridge connecting the Chinese computer animation industry with the best in the global digital animations market, ultimately contributing to the



dynamism of the local industry,” said Dr. Eric Liu, Chair of ACM SIGGRAPH Chapter, Hong Kong and Computer Animation Festival Chair, SIGGRAPH Asia 2011.

For more information on SIGGRAPH Asia 2011, please visit [www.siggraph.org/asia2011](http://www.siggraph.org/asia2011).

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#### **About SIGGRAPH Asia**

The 4<sup>th</sup> ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia will take place in Hong Kong at the Hong Kong Convention and Exhibition Centre from 12 – 15 December 2011. This year, the line-up of conference programs will include the return of the Art Gallery and Emerging Technologies, the inaugural Symposium on Apps, the Computer Animation Festival, Courses, Technical Papers, and Technical Sketches & Posters.

There will also be a trade exhibition from 13 – 15 December 2011, offering participants from hardware and software vendors to studios and educational institutions a platform to market their products and services to computer graphics and interactive techniques professionals and enthusiasts from Asia and beyond.

#### **About ACM**

The Association for Computing Machinery (ACM) SIGGRAPH sponsors SIGGRAPH Asia 2011. ACM is an educational and scientific society uniting the world's computing educators, researchers, and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development and professional networking.