

#### Monday, 02 November 2015

FC Full Conference Pass (FC - All Days)	Ex Exhibits Only
FC1 Full Conference Pass (FC 1-Day Only)	ET Electronic Theater Ticket
BC Basic Conference Pass	RT Reception Ticket

### 09:00 - 12:45

Kobe Int'l Conference Center, Room 403, Level 4 Courses FC1FC How to Design and Build New Musical Interfaces

09:00 - 12:45

#### Kobe Int'l Conference Center, Room 503, Level 5

#### Courses FC1FC

Rapid Interactive Real-Time Application Prototyping for Media Arts and Stage Performance

#### 09:00 - 12:45

#### Kobe Int'l Conference Center, Room 504+505, Level 5

#### Courses FC1FC

Vector Field Processing on Triangle Meshes

#### 09:00 - 10:45

# Kobe Int'l Exhibition Hall No. 2, Meeting Room 2A, Level 2

Symposium on Education **BCFC1FC** 

#### **Opening and Keynote**

## Game Over? New Approaches to Teaching Engineering Courses

- Joaquim Jorge, Instituto Superior Tecnico, Lisboa, Portugal

\*In English with Japanese Translation

#### 09:00 - 11:45

## Kobe Int'l Conference Center, Room 501, Level 5

#### Technical Briefs FC1FC

### Image and Video Processing

- Depth-Aware Coherent Line Drawings
- Depth-Aware Patch-Based Image Disocclusion for Virtual View Synthesis
- Exemplar-based Video Completion with Geometry-Guided Space-Time Patch Blending
- Gradient Domain Binary Image Hiding Using Color Difference Metric
- Illustration2Vec: A Semantic Vector Representation of Illustrations
- Panorama to Cube: A Content-Aware Representation Method
- Randomized Redundant DCT: Efficient Denoising by Using Random Subsampling of DCT Patches
- Region-Based Painting Style Transfer

### 09:00 - 12:45

## Kobe Int'l Conference Center, Room 401, Level 4 Workshops FC1FC

#### **R&D** in the Video Game Industry

- Just Keep Digging, and Other Principles for Videogame R&D
- Master Thesis Students in the Video Game Industry
- Doing R&D for Open Worlds
- Physics Simulation R&D at Square Enix
- Shader Development at OLM



09:00 – 18:00 Kobe Int'l Conference Center, Room 404, Level 4 Hands-on Demonstrations BCFC1FC

09:00 – 18:00 Kobe Int'l Conference Center, Room 405, Level 4 Hands-on Demonstrations BCFC1FC

## 10:00 - 12:10

Kobe Int'l Conference Center, International Conference Room, Room 301, Level 3 Workshops FC1FC

Head-Up Displays and their Applications

**Oral Presentations Session One** 

- HUD and the Potential of New Market
- Psychological Research Issues on Visual Attention while Using Head-up Display

- Safety and Efficacy of Head-up Display from a Physiological Optics Standpoint

- Evaluation for the Usage of HUD Contents Depending on Gender while Driving

#### 10:45 - 12:00

Kobe Int'l Conference Center, Room 502, Level 5 Symposium on Visualization in High Performance Computing BCFC1FC Opening & Keynote Visualization and High Performance Computing - Kwan Liu Ma, University of California, Davis

## 11:00 – 12:45 Kobe Int'l Exhibition Hall No. 2, Meeting Room 2A, Level 2 Symposium on Education BCFC1FC Education Talk - EDUCATIONAL ESCARGORE: Visual Effects Education Practices at Media Design School

\*In English with Japanese Translation

## 12:00 - 12:45

Kobe Int'l Conference Center, Room 501, Level 5 Technical Briefs FC1FC

## Virtual Reality

- Real-Time Expression-Sensitive HMD Face Recovery

- Visuohaptic Bone Saw Simulator: Combining Vibrotactile and Kinesthetic Feedback

#### 13:30 - 15:00

## Kobe Int'l Conference Center, International Conference Room 301, Level 3 Workshops FC1FC

#### Head-Up Displays and their Applications

Oral Presentations Session Two

- Design and Evaluation of HUD for Motorcycle Using Immersive Simulator
- Driver's Recognition of Head-up Display (HUD) as Information Provision System
- Monocular Hyperrealistic AR Display

#### 14:00 – 15:15 Kobe Int'l Conference Center, Room 501, Level 5 Technical Briefs FC1FC Rendering



- Coherent and Importance Sampled LVC BDPT on the GPU
- MergeTree: A HLBVH Constructor for Mobile Systems
- Pseudo-Marginal Metropolis Light Transport

#### 14:15 - 15:15

Kobe Int'l Exhibition Hall No. 2, Meeting Room 3A, Level 3 Computer Animation Festival BCFC1FC Panel Session The Technology Behind 'Big Hero 6'

- Walt Disney Animation Studios
- Toby Jones
- Rajesh Sharma

#### 14:15 - 16:00

## Kobe Int'l Conference Center, Room 502, Level 5 Symposium on Visualization in High Performance Computing **BCFC1FC** Presentation One

- Balanced Sampling and Compression for Remote Visualization
- Multivariate Volume Rendering Using Transfer Function Synthesizer Implemented in Remote Visualization System PBVR
- Volume Rendering With Data Parallel Primitives in High Performance Computing Environments
- Realistic Representation of Clouds in Google Earth
- Goal-Oriented Application Design Guidance for Flow Visualization

#### 14:15 - 15:45

#### Kobe Int'l Conference Center, Room 401, Level 4 Workshops FC1FC

## Haptic Media and Contents Design Invited Talks

- Designing Haptic Media Technologies for Embodied Creation
- Haptic Interface Design for Future Interactive Devices
- Haptoclone as a Test Bench of Weak Force Haptic Interaction

#### 14:15 - 16:00

#### Kobe Int'l Conference Center, Room 403, Level 4

#### Courses FC1FC

How to Write a SIGGRAPH Paper: A Guide to Choosing a Good Research Topic, Doing the Research, and Writing It Up

#### 14:15 - 16:00

## Kobe Int'l Conference Center, Room 504+505, Level 5 Courses FC1FC

AI Techniques for Contemporary Digital Games (日本語コース)ゲームのための最新AI手法 (Japanese Version, 日本語版)

#### 14:15 - 16:00

Kobe Int'l Exhibition Hall No. 2, Meeting Room 2A, Level 2 Symposium on Education BCFC1FC Education and CG/Interactive Techniques, Curriculum Development and Applications Education Papers

- Development and Evaluation of Education Materials for Stereoscopic 3D Computer Graphics



Animation

- A Dynamic, Flexible & Interactive Display Method of Paintings for Communicative Art Appreciation among Students

- Teaching Visual Storytelling for Virtual Production Pipelines Incorporating Motion Capture and Visual Effects

### 14:15 - 18:00

#### Kobe Int'l Conference Center, Room 503, Level 5

#### Courses FC1FC

Cross-Cultural User-Experience Design: Worldwide, including Japan, China, and India

#### 15:15 - 16:00

Kobe Int'l Conference Center, Room 501, Level 5

#### Technical Briefs FC1FC

#### Modeling

- Meltables: Fabrication of Complex 3D Curves by Melting
- Sketch based Modeling via Manifold Regularization

#### 15:20 - 18:00

Kobe Int'l Conference Center, International Conference Room, Room 301, Level 3 Workshops FC1FC

#### Head-Up Displays and their Applications

#### **Demos and Posters Session Three**

- Driving Simulator Study of Driver Behavior while using Head-Up Display
- Visibility and Accuracy in a Monocular Augmented Reality System
- Head-Up Display for Motorcycle Navigation
- Augmented Reality Monocular Head-Up Display for Depth Free Image

#### 16:00 - 18:00

#### Kobe Int'l Conference Center, Room 502, Level 5 Symposium on Visualization in High Performance Computing BCFC1FC Presentation Two

- CityHeat: Visualizing Cellular Automata-based Traffic Heat in Unity3D

- Towards In Situ Visualization of Extreme-Scale, Agent-Based, Worldwide Disease-Spreading Simulations

- GPU-Based Inverse Rendering With Multi-Objective Particle Swarm Optimization

- Transparent Visualization of Large-Scale and Complex Polygon Meshes Using a Stochastic Point-Based Rendering Method

- A Bottom-Up Scheme for User-Defined Feature Comparison in Ensemble Data

#### 15:45 - 18:00

#### Kobe Int'l Conference Center, Room 402, Level 4 Workshops FC1FC

Haptic Media and Contents Design

## Demo and Poster Session

- Development of Ball-Rotation System with Visual and Tactile Feedback Inducing Illusion of Motion

- Force Controlled Stuffed Toy Robot
- Fusion of Technology and Art. Essence to Consider.
- HapSticks: Tool-Mediated Interaction with Grounding-Free Haptic Interface
- Haptic 3D Canvas: Haptic Assistance of 3D Writing and Drawing with Vibrotactile Feedback for Gesture Interfaces

- Haptic Vibration for Hands and Bodies



- Lateral-Force-Based Haptic Display

- Light Touch on Pillar Array Surface Greatly Improves Direction Perception Induced by Asymmetric Vibration

- Multiple Texture Button by Adding Haptic Vibration and Displacement Sensing to the Physical Button

- Multitouch Haptic Interface with Movable Touch Screen
- Stir! Squishy! Play haptics with Soft-bunnies!
- String-Based Force Display for Mobile Haptics
- TAKO-Pen: A Pen-Type Pseudo-Haptic Interface Using Multipoint Suction Pressures
- The Kiss: Non-local Haptic Experiences
- Toward Tactile Contents Design using Laser Engraving Machines
- Variation of Tactile Feelings of Focused Ultrasound: Modulation Frequency and Hand Movement
- Wearable 6-DoF Wrist Haptic Device "SPIDAR-W"

#### 16:15 - 18:00

## Kobe Int'l Conference Center, Room 403, Level 4

Courses FC1FC

The Present and Future of The Information Art Through Ultra-High-Definition CG

#### 16:15 - 18:00

#### Kobe Int'l Conference Center, Room 504+505, Level 5

Courses FC1FC

Art and Technology at Pixar, from Toy Story to Today

(日本語コース) ピクサーのアート&テクノロジー~トイ・ストーリーから現在まで~ (Japanese Version, 日本語版)

#### 16:15 - 18:00

Kobe Int'l Conference Center, Main Hall, Level 1 Featured Session BCFC1FC

#### Pioneers Panel: Pioneers? You can become one too!

- Takeo Kanade, Carnegie Mellon University
- Tomoyuki Nishita, The University of Tokyo
- Steven Feiner, Columbia University
- Christian Sandor, Nara Institute of Science and Technology
- Yoshifumi Kitamura, Tohoku University

\*Simultaneous Translation Provided from English to Japanese

#### 16:15 - 18:00

## Kobe Int'l Conference Center, Room 501, Level 5 Technical Briefs FC1FC

#### Animation

- Grease Pencil: Integrating Animated Freehand Drawings into 3D Production Environments
- Perception-Based Interactive Sound Synthesis of Morphing Solids' Interactions
- Learning Motion Manifolds with Convolutional Autoencoders
- A Linear Blending Scheme for Rigid and Non-Rigid Deformations
- Shape-aware MLS Deformation for Line Handles

#### 16:15 - 18:00

Kobe Int'l Exhibition Hall No. 2, Meeting Room 2A, Level 2

Symposium on Education **BCFC1FC** 

Education and CG/Interactive Techniques, Curriculum Development and Applications Education Talks



- Taking Animation Project Learning into the Virtual Environment

- Learning Hawaiian Hula Dance by Using Tablet Computer

- Courses on 3D Image Display for Students Who Aim to Become Information Media Engineers and Creators

#### 18:30 - 20:00

Portopia Hotel, South Wing, Portopia Hall, Level 1 Technical Papers BCFC1FC

## Fast Forward

An entertaining, illuminating summary of SIGGRAPH Asia's 2015 Technical Papers in an exciting twohour session! The author(s) of each paper are allowed a little less than a minute to wow the crowd with their results and entice attendees to hear their complete paper presentation later in the week.