## Cyberworlds 2014

### Schedule-At-A-Glance

#### October 5th, Sunday (Day 0)

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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| 17:30 – 18:30 | Guided Visit of the Royal Palace  
 (Royal Palace of La Magdalena) |
| 18:30 – 20:00 | Welcome Reception & Cocktail  
 (Royal Palace of La Magdalena) |

#### October 6th, Monday (Day 1)

<table>
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<th>Time</th>
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| 8:00 – 9:00 | Registration Starts  
 (Conference Desk) |
| 9:00 – 9:30 | Opening Ceremony  
 (Riancho Room) |
| 9:30 – 10:30 | Invited Talk 1 + Q&A  
 *Professor Tomoyuki Nishita*  
 (Riancho Room) |
| 10:30 – 11:00 | Coffee Break  
 (Salon de Baile) |
| 11:00 – 12:35 | Parallel Session I  
 Session 1: Interaction (F4+S1)  
 (Riancho Room)  
 Session 2: Arts I (F4+S1)  
 (Bringas Room) |
| 12:35 – 13:00 | Poster Fast Forward & Announcements |
| 13:00 – 14:20 | LUNCH |
| 14:20 – 16:00 | Parallel Session II  
 Session 3: Multisensory (F5)  
 (Riancho Room)  
 Session 4: BioSec I (F5)  
 (Bringas Room) |
| 16:00 – 16:30 | Coffee Break  
 (Salon de Baile) |
| 16:30 – 17:40 | Parallel Session III  
 Session 5: Arts II (F2+S2)  
 (Riancho Room)  
 Session 6a: BioSec II (F2)  
 (Bringas Room)  
 Session 6b: Cyberhumans I (F1)  
 (Bringas Room) |
| 19:30 – 22:30 | Gala Dinner  
 (Grand Casino of El Sardinero) |

F: Full papers (20 mins.), S: Short Papers (15 mins.)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session 7: Shapes &amp; Curves (F5) (Riancho Room)</th>
<th>Session 8: Cyberhumans II (F5) (Bringas Room)</th>
<th>Coffee Break (Salon de Baile)</th>
<th>Session 9: Visualization (F4) (Riancho Room)</th>
<th>Session 10: Geometry &amp; Maths (F4) (Bringas Room)</th>
<th>Invited Talk 2 + Q&amp;A Professor Jian Jun Zhang</th>
<th>Parallel Session V</th>
<th>Coffee Break (Salon de Baile)</th>
<th>Invited Talk 3 + Q&amp;A Professor Bill Seaman (Riancho Room)</th>
<th>Poster Session &amp; Art Show &amp; Exhibition Cocktail Lunch</th>
<th>Closing Ceremony (Riancho Room)</th>
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<td>9:00 – 10:40</td>
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F: Full papers (20 mins.), S: Short Papers (15 mins.)
Riancho Room

Bringas Room

Salon de Baile
Parallel Session I

Session 1: Interaction (F4+S1)
Riancho Room

[F] Feasibility Study for Contemporary Dance E-Learning: An Interactive Creation Support System Using 3D Motion Data
Bin Umino, Asako Soga, and Motoko Hirayama

[F] GPU-Based Realtime Hand Gesture Interaction and Rendering for Volume Datasets Using Leap Motion
Junchen Shen, Yanlin Luo, Xingce Wang, Zhongke Wu, and Mingquan Zhou

[F] Exploring Stereoscopic Multi-user Interaction with Individual Views
Vincent Küszter, Guido Brunnett, and Daniel Pietschmann

[F] Sketch-Based Dance Choreography
Elahe R. Moghaddam, Javad Sadeghi, and Faramarz F. Samavati

[S] Feasibility Study on Free Hand Geometric Modelling Using Leap Motion in VRML/X3D
Jian Cui and Alexei Sourin

Session 2: Arts I (F4+S1)
Bringas Room

[F] New Opportunities for Artistic Practice in Virtual Worlds
Denise Doyle

[F] Creative Approaches to Exploring the Interstice between the Virtual and the Real
Dew Harrison

[F] Liberated Formatization
Ulrich Gehmann, Marco Zampella, and Matthias Wölfel

[F] How to Obtain Passwords of Online Scammers by Using Social Engineering Methods
Andreas Zingerle

[S] Wanderlost
Michael Johansson
Parallel Session II

Session 3: Multisensory (F5)
Riancho Room

[F] Haptic-Based Serious Games
Xiyuan Hou, Olga Sourina, Igor Kirillov, and Stanislav Klimenko

[F] Multisensory Experience with Images
Kan Chen, Xingzi Zhang, Shahzad Rasool, Henry Johan, and Alexei Sourin

[F] Stability of Features in Real-Time EEG-based Emotion Recognition Algorithm
Zirui Lan, Olga Sourina, Lipo Wang, and Yisi Liu

[F] Weight and Size Discrimination with Vibrotactile Feedback
Jonatan Martínez, Arturo S. García, Miguel Oliver, José P. Molina, and Pascual González

[S] Neurofeedback Games to Improve Cognitive Abilities
Yisi Liu, Olga Sourina, and Xiyuan Hou

Session 4: BioSec I (F5)
Bringas Room

Madeena Sultana, Padma Polash Paul, and Marina Gavrilova

[F] Multimodal Biometrics Using Cancelable Feature Fusion
Padma Polash Paul and Marina Gavrilova

[F] Human Identification Using Sensors Data Based on 3D Gait Area
Sajid Ali, Zhongke Wu, Mingquan Zhou, Guoguang Du, Xulong Li, and Fan Pengcheng

[F] Mining Social Behavioral Biometrics in Twitter
Madeena Sultana, Padma Polash Paul, and Marina Gavrilova

[F] The Effects of Gameplay on Leadership Behaviors: An Empirical Study on Leadership Behaviors and Roles in Multiplayer Online Battle Arena Games
Tinnawat Nuangjumnong
### Parallel Session III

**Session 5: Arts II (F2+S2)**

**Riancho Room**

[F] Exploring the Use of a 3D Virtual Environment in Chinese Cultural Transmission  
*Yungang Wei, Xiaoye Tan, Xiaoran Qin, Xiaohang Yu, Bo Sun, and Xiaoming Zhu*

*Gianluca Mura*

[S] Folding Pattern: A Study about Perception  
*Cristina Ghetti and Emanuelle Mazza*

[S] (Re) Building Proun #5A in the Metaverse  
*Elif Ayiter*

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**Session 6a: BioSec II (F2)**

**Bringas Room**

[F] A Novel Pose Tolerant Face Recognition Approach  
*Refik Samet, Ghulam Sakhi Shokouh, and Jianjun Li*

[F] Biometrics-Based Secret Key Agreement by Public Discussion with RFID System  
*Marcus V.C. Rodrigues, Felipe M. Masculo, Francisco M. de Assis, and Bruno B. Albert*

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**Session 6b: CyberHumans I (F1)**

**Bringas Room**

[F] Motivation System for Virtual Creatures: Actions Driven by Needs  
*Selene Zamarripa, Daniel Madrigal, and Felix Ramos*
### Session 7: Shapes & Curves (F5)
**Riancho Room**

- [F] Procedural Playable Cave Systems Based on Voronoi Diagram and Delaunay Triangulation
  Aitor Santamaria-Ibrikia, Xabier Cantero, Sergio Huerta, Igor Santos, and Pablo G. Bringas

- [F] Scale-Invariant Heat Kernel Mapping
  Kang Wang, Zhongke Wu, Pengfei Xu, Junli Zhao, Taorui Jia, Wuyang Shui, Sajid Ali, and Mingquan Zhou

- [F] Isometric Shape Matching Based on the Geodesic Structure and Minimum Cost Flow
  Taorui Jia, Kang Wang, Zhongke Wu, Junli Zhao, Pengfei Xu, Cuiting Liu, and Mingquan Zhou

- [F] Simulated Annealing Algorithm for Bezier Curve Approximation
  Carlos Loucera, Akemi Gálvez, and Andrés Iglesias

- [F] Applying Clonal Selection Theory to Data Fitting with Rational Bézier Curves
  Akemi Gálvez, Andrés Iglesias, and Andreina Avila

### Session 8: Cyberhumans II (F5)
**Bringas Room**

- [F] Safe Navigation of Pedestrians in Social Groups in a Virtual Urban Environment
  Francisco Arturo Rojas, Hyun Seung Yang, and Fernando M. Tarnogol

- [F] User Avatar Association in Virtual Worlds
  Aslan Kanamgotov, Lyzgeo Koshy, Marc Conrad, and Simant Prakoonwit

- [F] A Study on Perceived Similarity between Photograph and Shape Exaggerated Caricature
  Jiayi Xu, Wei Yang, Xiaoyang Mao, Masahiro Toyoura, and Xiaogang Jin

- [F] Automatic Generation of Skeleton Animation from 3D Human Mesh Model
  Abdul Razzaq, Zhongke Wu, Mingquan Zhou, Sajid Ali, and Khalid Iqbal

- [F] Example-Based Automatic Caricature Generation
  Wei Yang, Kouki Tajima, Jiayi Xu, Masahiro Toyoura, and Xiaoyang Mao
Parallel Session V

**Session 9: Visualization (F4)**
Riancho Room

[F] Multilevel Focus+Context Visualization Using Balanced Multiresolution  
*Mahmudul Hasan, Faramarz F. Samavati, and Christian Jacob*

[F] Optimizing and Visualizing Fire Dispatcher Activity  
*Sergey Mescherin, Igor Kirillov, and Stanislav Klimenko*

[F] Real-Time Animated Visualization of Massive Air-Traffic Trajectories  
*Stefan Buschmann, Matthias Trapp, and Jürgen Döllner*

[F] Interactive Visualization of Energy System  
*Haleh Alemasoom, Faramarz F. Samavati, John Brosz, and David Layzell*

**Session 10: Geometry & Maths (F4)**
Bringas Room

[F] Constructive Roof Geometry  
*Johannes Edelsbrunner, Ulrich Krispel, Sven Havemann, Alexei Sourin, and Dieter W. Fellner*

[F] Functorial Classification of Political Groups in the Meiji Restoration  
*Kenji Ohmori and Toshiyasu L. Kunii*

[F] Clay Flower Creation Based on Homotopy Type Theory  
*Kenji Ohmori and Toshiyasu L. Kunii*

[F] Molecular Geometry and BULL!  
*Youngsong Cho, Jae-Kwan Kim, Joonghyun Ryu, Mokwon Lee, Jehyun Cha, Chanyoung Song, and Deok-Soo Kim*
Parallel Session VI

Session 11: Simulation & Space (F5)
Riancho Room

[F] Waterfall Simulation by Using a Particle and Grid-Based Hybrid Approach
Nobuhiko Mukai, Yasuomi Sakai, and Youngha Chang

[F] Image-Based Virtual Fitting System with Garment Image Reshaping
Hiroki Yamada, Masaki Hirose, Yoshihiro Kanamori, Jun Mitani, and Yukio Fukui

[F] Minimizing Collision among Social Groups in Wide-Open Spaces
Francisco Arturo Rojas and Hyun Seung Yang

[F] Interacting with Ads in Hybrid Urban Space
Matthias Wölfel

[F] Comparative Survey of Indoor Positioning Technologies, Techniques, and Algorithms
Mai A. Al-Ammar, Suheer Alhadhrami, Abdulmalik Al-Salman, Abduirahman Alarifi, Hend S. Al-Khalifa, Ahmad Alnafessah, and Mansour Alsaleh

Session 12: Cultural Heritage (F3)
Bringas Room

[F] Crowd-Sourced Digitisation of Cultural Heritage Assets
Helen C. Miles, Andrew T. Wilson, Frederic Labrosse, Bernard Tiddeman, Seren Griffiths, Ben Edwards, Katharina Moller, Raimund Karl, and Jonathan C. Roberts

Oscar Cosido, Andrés Iglesias, Akemi Gálvez, Raffaele Catuogno, Massimiliano Campi, Leticia Terán, and Esteban Sainz

[F] A New Virtual Museum Equipped with Automatic Video Content Generator
Masaki Hayashi, Steven Bachelder, Masayuki Nakajima, and Akihiko Iguchi
Virtual Human Behavioural Profile Extraction Using Kinect Based Motion Tracking
*Dimitar Stanev and Konstantinos Moustakas*

Examples of Topological Modeling of Matrix-Structured Data and Use of the Applied Attachment Function of the Cellular Data System
*Toshio Kodama, Toshiyasu L. Kunii, and Yoichi Seki*

ARecycle NOID ARt Game: The Augmented Reality Game in Public Space
*Alena Mesarosova and Manuel Ferrer Hernandez*