Computer Animation and Social Agents

Program

Geneva, Switzerland, July 5-7th 2006

Organized by MIRALab
University of Geneva

With the support of
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Computer Animation & Social Agents 2006
CASA'06

Program

Wednesday, 5th July 2006

08:30 - 09:30, Uni-Dufour : Registration Workshops and CASA'06

09:30 - 10:30, U159 Workshop HUMAINE / AIM@SHAPE	09:30 - 10:30, U259 CASA'06 Session Animation Techniques and Morphing I Chair: WonSook Lee
▪ Modeling Appraisal Theory of Emotion and Facial Expression *Susanne Kaiser, Thomas Wehrle* ▪ Emotional Face Expression Profiles Supported by Virtual Human Ontology *Alejandra Garcia-Rojas, Frederic Vexo, Daniel Thalmann, Amaryllis Raouzaiou, Kostas Karpouzis, Stefanos Kollias, Laurent Moccozet, Nadia Magnenat-Thalmann* ▪ Multimodal Expression in Virtual Humans *Celso de Melo, Ana Paiva*	▪ Hair Motion Cloning from Cartoon Animation Sequences *Eiji Sugisaki, Yosuke Kazama, Shigeo Morishima , Natsuko Tanaka, Akiko Sato* ▪ Pencil Drawing for NPR Rendering and Animation *XueXiang Xie, Feng Tian, HockSoon Seah, Zhongke Wu, Konstantin Melikhov* ▪ DBSC-Based Animation Enhanced with Feature and Motion *Quan Chen, Feng Tian, HockSoon Seah, ZhongKe Wu, Jie Qiu, Melikhov Konstantin*

10:30 - 11:00, U159 - Coffee Break

11:00 - 12:00, U159 Workshop HUMAINE / AIM@SHAPE	11:00 - 12:00, U259 CASA'06 Session Animation Techniques and Morphing II Chair: Julien Pettré
▪ EU Projects overview ▪ Panel: Towards High-level Representation Models for Emotional Virtual Humans	▪ Generating Genus-n-to-m Mesh Morphing Using Spherical Parameterization *Tong-Yee Lee, Chi-Yuan Yao, Hung-Kuo Chu, Ming-Jen Tai, Cheng-Chieh Chen* ▪ MIMESIS: Interactive Interface for Mass-Interaction Modeling *Matthieu Evrard, Annie Luciani, Nicolas Castagné* ▪ Efficient rendering of light and camera animation for navigating a frame array *Alex Méndez, Mateu Sbert*

12:00 - 13:30 Lunch Break

13:30 - 15:10, U159 Workshop HAPTEX	13:30 - 14:50, U259 CASA'06 Session Emotion and Social Behavior Chair: Annie Luciani
▪ Study of Visuo-haptic Spatial Misalignment *Pierre Davy* ▪ Haptic Rendering of Textiles at Different Scales *Guido Böttcher* ▪ Development of Force-Feedback Devices for the Haptic Rendering of Textiles: a Progress to Date *Marco Fontana* ▪ Distribution of Virtual Touch over the Skin *Ian Summers* ▪ Fabric Physical Properties as a Base for Haptic Simulations of Textiles *Harriet Meinander*	▪ Facial Expression via Genetic Algorithms *Lijia Zhu, Won-Sook Lee* ▪ Evolving the Motor Schema Approach for Learning Cooperation *Trung Hau Tran Cedric Sanza, Yves Duthen* ▪ Aini - Achieving Believability through Anticipation *Carlos Martinho, Ana Paiva* ▪ Mass-interaction Model of Emergent Collective Phenomena *Annie Luciani, François Thil, Matthieu Evrard*

16:30 - 18:30

Visit of MIRALab, Demos and Welcome Drink (in Battelle, Carouge)

Location: Site de Battelle, 7 Route de Drize, 1227 Carouge
Building A, 3rd floor

Thursday, 6th July 2006

08:30 - 09:30, Uni-Dufour : Registration CASA'06

09:30 - 09:45, U259

Official welcome address of CASA'2006, Prof. N. Magnenat-Thalmann

09:45 - 10:30, U259
Chair: Nadia Magnenat-Thalmann

Invited Speakers: Tosiyasu L. Kunii, Kanazawa Institute of Technology, Japan and Kenji Ohmori, Hosei University, Japan

- A Kaleidoscope as a Cyberworld and its Animation: Linear Architecture and Modeling Based on an Incrementally Modular Abstraction Hierarchy
  Tosiyasu L. Kunii, Kenji Ohmori

10:30 - 11:00 Coffee Break, U159

Papers sessions

11:00 - 12:20 Session I, U159 Optimization Techniques for VR Chair: Dinesh Pai	11:00 - 12:00 Session II, U259 Motion Synthesis and Motion Capture I Chair: Ronan Boulic
- A Skinning Approach for Dynamic 3D Mesh Compression *Khaled Mamou, Titus Zaharia, Françoise Prêteux* - Partial Hierarchy Construction for Detecting Deformable Objects Collisions And Self-Collisions *Maher Hatab, Abderrahmane Kheddar* - Simplification of Reconstructed Meshes in Real Time *Fernando Pizarro, Stefan Preuss, Alfred Schmitt* - Surface Level-Of-Detail Modeling of 3d Objects Using Marching-Cube Octree *Hasup Lee, Hyun S. Yang*	- Understanding Visuo-Motor Primitives for Motion Synthesis and Analysis *Gutemberg Guerra-Filho, Yiannis Aloimonos* - Motion Synthesis and Editing in Low-Dimensional Spaces *Hyun Joon Shin, Jehee Lee* - Pair Graphs: An Example-based Approach to Stylize Motion *Sung Kyung Sohn, Hyun Joon Shin, Min-Ho Kyung*

12:20 - 14:00 Lunch Break

Papers sessions

14:00 - 16:00 Session I, U159
Natural Phenomena
Chair: Enhua Wu

- Animation of Water Waves on Mesh Surfaces
  Shengjun Liu, Xiaogang Jin, Charlie C. L. Wang
- A Controllable Method for Animation of Earth-scale Clouds
  Yoshinori Dobashi, Tsuyoshi Yamamoto, Tomoyuki Nishita
- Validating Results of Liquid Simulations
  Philipp Jenke, Stefan Gumhold
- Tour into the Picture with Water Surface Reflection and Object Movements
  Jinho Park, Nambin Heo, Sunghee Choi, Sung Yong Shin
- Simulation of Miscible Binary Mixtures Based on Lattice Boltzmann Method
  Hongbin Zhu, Xuehui Liu,Youquan Liu, Enhua Wu
- Graph-Based Crack Formation Algorithms for Rigid Body Explosions
  Jessica Socha, Justin Wan

14:00 - 16:00 Session II, U259
Motion Synthesis and Motion Capture II
Chair: Shi-Nine Yang

- Stylized Motion for 3D Character Rendering and Animation
  Tong-Yee Lee, Ming-Te Chi Chung-Ren Yan, Chiung-Fu Chen, Yen-Chi Lin
- Key-Styling : Learning Motion Style for Real-Time Synthesis of 3D Animation
  Yi Wang, Zhi-Qiang Liu, Li-Zhu Zhou
- Motion Style Transformation by Extracting and Applying Motion Features
  Takuya Terasaki, Masaki Oshita
- Minimal Dynamic Modeling for Dance Verbs
  Chi-Min Hsieh, Annie Luciani
- Getting Distinct Movements from Motion Capture Data
  Jun Xiao, Yueting Zhuang, Fei Wu
- An LMA-Effort Simulator with Dynamics Parameters for Motion Capture Animation
  Shih-Pin Chao, Shi-Nine Yang, Tsang-Gang Lin

16:00 - 16:30 Coffee Break, U159

Papers sessions

16:30 - 17:30 Session I, U159
Collisions and Deformations
Chair: Alfred Schmitt

- Constraint-based collision and contact handling using impulses
  Jan Bender, Alfred Schmitt
- Interactive Mesh Deformation With Pseudo Material Effects
  Jin Huang, Hongxin Zhang, Xiaohan Shi, Xinguo Liu, Hujun Bao
- Optimized Linear FEM for Modeling Deformable Objects
  Marcos García, Cesar Mendoza, Luis Pastor, Angel Rodríguez

16:30 - 17:50 Session II, U259
Crowds Simulation and Rendering
Chair: Daniel Thalmann

- Optimized Motion Simplification for Crowd Animation
  Junghyun Ahn, Seungwoo Oh, Kwangyun Wohn
- Environmental Abstraction and Path Planning Techniques for Realistic Crowd Simulation
  Sébastien Paris, Stéphane Donikian, Nicolas Bonvalet
- A Comparison Between Impostors and Point-based Models for Interactive Rendering of Animated Models
  Erik Millan, Isaac Rudomin
- Real-Time Navigating Crowds: Scalable Simulation and Rendering
  Julien Pettré, Pablo de Heras Ciechomski, Jonathan Maïm, Barbara Yersin, Jean-Paul Laumond, Daniel Thalmann

20:00 Bus leaving from Uni Dufour to Jussy, Château du Crest
20:30 Conference dinner at Jussy, Château du Crest

Friday, 7th July 2006

08:15 - 09:15 Registration CASA'06, Uni-Dufour

09:15 - 10:00, U259
Chair: Nadia Magnenat-Thalmann

Invited Speaker: Alfred Schmitt, University of Karlsruhe, Germany
- "How Relevant is Impulse-Based Dynamic Simulation for the Computer Graphics Community?"
  Alfred A. Schmitt

10:00 - 10:30 Coffee Break, U159

Papers sessions

10:30 - 11:50, Session I, U159 Virtual and Augmented Reality Chair: George Papagiannakis	10:30 - 12:10, Session II, U259 Social Agents Chair: Ana Paiva
▪ Bringing Haptics and Physical Simulation Together: Haptic Travel through Physical Worlds *Pieter Jorissen, Joan De Boeck, Wim Lamotte* ▪ Integrating Physically Based Sound Models in a Multimodal Rendering Architecture *Federico Avanzini, Paolo Crosato* ▪ As-Consistent-As-Possible Compositing of Virtual Objects and Video Sequences *Guofeng Zhang, Xueying Qin, Xiaobo An Wei Chen, Hujun Bao* ▪ Generation of Character Motion by Reactive Motion Capture System with Force feedback and Visual Information *Woong Choi, Naoki Hashimoto, Kozaburo Hachimura, Makoto Sato*	▪ Autonomous Boids *Christopher Hartman, Bedrich Benes* ▪ A Wizard-of-Oz Platform for Embodied Conversational Agents *Edward Brown, Neil Barrett* ▪ Temporal Alignment of Expressive Gestures Sequences *Alexis Heloir, Nicolas Courty, Sylvie Gibet, Franck Multon* ▪ An Extendable Multiagent Model for Behavioural Animation *Oliver Häger, Soraia Raupp Musse* ▪ A Navigation Architecture for Agents Based on a Human-like Memory and Cognitive Map Model *Romain Thomas , Stéphane Donikian*

12:10 - 13:30 Lunch Break

13:30 - 14:15, U259
Chair: Nadia Magnenat-Thalmann

Invited Speaker: Rynson W.H. Lau, University of Durham, UK

- Reactive Motion in Crowd Simulations
  Rynson W.H. Lau, Taku Komura

14:15 - 14:30 Coffee Break, U159

Papers sessions	
14:30 - 15:50, Session I, U159 Facial& body Modeling and Animation Chair: Rynson Lau	14:30 - 16:10 Session II, U259 Social Agents & Human Character Animation Chair: Mario Gutierrez
▪ Novel Physically-based Facial Expression Synthesizer with Parametric Muscle Structure *Chen Chen, Edmond C. Prakash* ▪ Facial Shape and 3D Skin *Won-Sook Lee, Andrew Soon* ▪ Realistic Human Hand Deformation *Jieun Lee, Seung-Hyun Yoon, Myung-Soo Kim* ▪ A Powell Optimization Approach for Example-Based Skinning in a Production Animation Environment *Xian Xiao, J.P. Lewis, HockSoon Seah, Nickson Fong, Feng Tian*	▪ Automatic Muscle Generation for Character Skin Deformation *Xiaosong Yang, Jian J Zhang* ▪ ▪ An Integrated Perception for Autonomous Virtual Agents: Active and Predictive Perception *Toni Conde, Daniel Thalmann* ▪ LEXICLECS: a Real-world Architecture for the Synthesis of Spontaneous Gesture *Patrick Olivier, Daniel G. Jackson, Chris Wiggins* ▪ Facial Actions as Visual Cues for Personality *Ali Arya, Lisa N. Jefferies, JamesT. Enns, Steve DiPaola* ▪ Curve Skeleton Skinning for Human and Creature Characters *Xiaosong Yang, Arun Somasekharan, Jian J Zhang*

16:15 - 16:30, U259

Closing Session and Presentation of CASA'2007, Prof. N. Magnenat-Thalmann