

# CASA

## 2013

### THE 26<sup>th</sup> INTERNATIONAL CONFERENCE ON COMPUTER ANIMATION AND SOCIAL AGENTS

16-18 May 2013, İstanbul



## PROGRAMME

**CASA 2013 PROGRAMME****Thursday, 16 May**

	<b>Room A</b>	<b>Room B</b>
08:30 - 09:30	<b>Registration</b>	
09:30 - 10:30	<b>Opening Session &amp; Keynote:</b> Nadia Magnenat Thalmann Daniel Thalmann	
10:30 - 10:45	Coffee Break	
10:45 - 13:00	<b>Session 1</b> Crowd Simulation	<b>Session 2</b> Fluid Simulation
13:00 - 14:30	Lunch	
14:30 - 16:45	<b>Session 3</b> Natural Phenomena and Lighting	<b>Session 4</b> Face/Hair Animation and Rendering
16:45 - 17:00	Coffee Break	
17:00 - 18:00	<b>Panel Session</b> Future Challenges in Computer Animation	

**CASA 2013 PROGRAMME****Friday, 17 May**

	<b>Room A</b>	<b>Room B</b>
08:30 - 09:30	<b>Registration</b>	
09:30 - 10:30	<b>Keynote:</b> Jinxiang Chai	
10:30 - 10:45	Coffee Break	
10:45 - 13:00	<b>Session 5</b> Virtual Cities and Path Planning	<b>Session 6</b> Paint Simulation
13:00 - 14:30	Lunch	
14:30 - 15:30	<b>Keynote:</b> Çağatay Başdoğan	
15:30 - 15:45	Coffee Break	
15:45 - 17:00	<b>Session 7</b> Medical / Immersive Applications	<b>Session 8</b> Virtual Agents
17:00 - 18:00	<b>Poster Session</b>	
18:00 - 23:00	<b>SOCIAL EVENT</b>	

**CASA 2013 PROGRAMME****Saturday, 18 May**

	<b>Room A</b>	<b>Room B</b>
08:30 - 9:30	<b>Registration</b>	
09:30 - 10:30	<b>Session 9</b> 3D Mesh Deformation	<b>Session 10</b> Human Action Recognition
10:30 - 10:45	Coffee Break	
10:45 - 13:00	<b>Session 11</b> 3D Mesh and Geometric Modeling	<b>Session 12</b> Human Motion
13:00 - 14:30	<b>Closing Session</b>	

## PAPER SESSIONS

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### **Session 1 - Crowd Simulation (Chair: Daniel Thalmann)**

1. Seung In Park, Francis Quek and Yong Cao. Simulating and Animating Social Dynamics: Embedding Small Pedestrian Groups in Crowds
2. Libo Sun, Xiaona Li and Wenhui Qin. Simulating Realistic Crowd Based on Agent Trajectories
3. Jin Hyoung Park, Francisco Rojas and Hyun Seung Yang. A Collision Avoidance Behavior Model for Crowd Simulation based on Psychological Findings
4. Lei Lv, Tianlu Mao, Xuecheng Liu and Zhaoqi Wang. From Few to Many: Group Motion Bigraph for Mass Performance
5. Ates Akaydin, Aytek Aman and Ugur Gudukbay. Interactive Crowd Simulation for Augmented Reality Environments

### **Session 2 - Fluid Simulation (Chair: Selim Balcisoy)**

6. Tianchen Xu, Wen Wu and Enhua Wu. Real-time Character-driven Motion Effects with Particle-based Fluid Simulation
7. Hwi-Ryong Jung, Sun-Tae Kim, Junyong Noh and Jeong-Mo Hong. A Heterogeneous CPU-GPU Parallel Approach to a Multigrid Poisson Solver for Incompressible Fluid Simulation
8. Nadir Akinci, Jens Cornelis, Gizem Akinci and Matthias Teschner. Coupling Elastic Solids with SPH Fluids
9. Guijuan Zhang, Dianjie Lu, Dengming Zhu, Lei Lv, Hong Liu and Xiangxu Meng. Rigid-motion inspired liquid character animation
10. Changbo Wang, Qiang Zhang and Fanlong Kong and Shuya Wang. Animation of Debris Flow with Adaptive Grid Refinement

11. Feibin Chen, Changbo Wang, Buying Xie and Hong Qin. Flexible and Rapid Animation of Brittle Fracture using the SPH Formulation

### **Session 3 - Natural Phenomena and Lighting (Chair: Enhua Wu)**

12. Jinmo Kim, Daeyeoul Kim and Hyungje Cho. Procedural Modeling of Trees based on Convolution Sums of Divisor Functions for Real-time Virtual Ecosystems
13. Kiwon Um, Tae-Yong Kim, Youngdon Kwon and Junghyun Han. Porous Deformable Shell Simulation with Surface Water Flow and Saturation
14. Hongyu Wu, Xiaowu Chen, Mengxia Yang and Zhihong Fang. Facial Performance Illumination Transfer from a Single Video using Interpolation in Non-skin Region
15. Chunxiao Liu, Hong Li, Qunsheng Peng, Xun Wang, Enhua Wu, Relighting Abstracted Image via Salient Edge Guided Luminance Field Optimization
16. Gyuhyun Hwang and Sanghun Park. Video-based Material Specific Weathering

### **Session 4 - Face/Hair Animation and Rendering (Chair: Nadia Magnenat Thalmann)**

17. Mark Warburton and Steve Maddock. Physically-Based Forehead Animation including Wrinkles
18. Cheng-Guo Huang, Tsung-Shian Huang, Wen-Chieh Lin and Jung-Hong Chuang. Physically-based Cosmetic Rendering
19. Der-Lor Way and Yu-Sheng Chang. Real Time Cartoon Hair Rendering with Physically-Based Dynamic
20. Mehdi Boukhris, Matthieu Courgeon, Cyril Jover, Jean-Claude Martin, Gilles Gambier and Cédric Guiard. A Conceptual Framework studying the fidelity of Expressive Digital Doubles

21. Taeyoung Choi and Seongah Chin. Wound Recovery Synthesis on a 3D Face Using Subsurface Scattering with Multi-Layered Skin Features

#### **Session 5 - Virtual Cities and Path Planning (Chair: Ugur Gdkbay)**

22. Xuequan Lu, Wenzhi Chen, Mingliang Xu, Zonghui Wang, Zhigang Deng and Yangdong Ye. An Accident-Avoidance Full Velocity Difference Model for Animating Realistic Street-Level Traffic in Rural Scenes
23. Norman Jaklin, Atlas F. Cook Iv and Roland Geraerts. Real-Time Path Planning in Heterogeneous Environments
24. Cumhur Y. Ozcan, Murat Haciomeroglu, Oner Barut and Hayri Sever, A Path-Based Composite Crowd Simulation Model
25. Francisco Rojas, Jin Hyoung Park and Hyun Seung Yang. Group Agent-based Steering for the Realistic Corner Turning and Group Movement of Pedestrians in a Crowd Simulation
26. Adam Barnett, Myung Choi and Taku Komura. Topology-based Global Crowd Control

#### **Session 6 - Paint Simulation (Chair: Frederic Cordier)**

27. Mi You, Taekwon Jang, Seunghoon Cha, Jihwan Kim and Junyong Noh. Realistic Paint Simulation based on Fluidity, Diffusion, and Absorption
28. Dongxue Liang and Kyoungju Park. Pencil drawing animation from a video
29. Siddharth Hegde, Christos Gatzidis and Feng Tian. Animating Painterly Strokes Embedded in 3D Space
30. Nima Nikfetrat and Wonsook Lee. Fire Pattern Analysis and Synthesis using EigenFires and Motion Transitions



## **Session 7 – Medical and Immersive Applications**

### **(Chair: Çağatay Başdoğan)**

31. Shuai Li, Qinqing Zhao, Shengfa Wang, Aimin Hao and Hong Qin. Interactive Volumetric Image Manipulation for Patient-specific Soft Tissue Deformation and Cutting
32. Jaesung Park, Minsub Shim, Seon-Young Park, Yunku Kang and Myung-Soo Kim. Realistic Deformation of 3D Human Blood Vessels
32. Rasika Ranaweera, Michael Cohen and Michael Frishkopf. Narrowcasting Enabled Immersive Music Browser for Folkways World Music Collection

## **Session 8 - Virtual Agents (Chair: Junyong Noh)**

33. Maher Ben Moussa and Nadia Magnenat-Thalmann. Towards Socially Responsible Agents: Integrating Attachment and Learning in Emotional Decision Making
34. Jeehang Lee, Tingting Li and Julian Padget. Towards Polite Virtual Agents using Social Reasoning Techniques
35. Linbo Luo, Haiyan Yin, Wentong Cai, Michael Lees and Suiping Zhou. Interactive Scenario Generation for Mission-based Virtual Training
36. Hui-Yin Wu, Marc Christie and Tsai-Yen Li. Stories Animated: A Framework for Personalized Interactive Narratives using Filtering of Story Characteristics

## **Session 9 - 3D Mesh Deformation (Chair: Veysi İşler)**

37. Chuhua Xian, Guiqing Li and Yunhui Xiong. Efficient Cage Generation by Region Decomposition
38. Guoliang Luo, Frederic Cordier and Hyewon Seo. Compression of 3D mesh sequences by temporal segmentation
39. Michael Zollhöfer, Andre Vieweg, Jochen Süßmuth and Günther Greiner. Pseudo-Skeleton based ARAP Mesh Deformation

### **Session 10 - Human Action Recognition (Chair: Taku Komura)**


40. Imran Junejo, Khurram Junejo and Zaher Al Aghbari. Human Action Recognition using SAX-Shapes
41. Ioannis Kapsouras and Nikolaos Nikolaidis. Dynemes-based Movement Recognition on Skeleton Animation Data
42. Gokcen Cimen, Tolga Capin, Hacer Ilhan and Hasmet Gurcay. Classification of Human Motion based on Affective State Descriptors

### **Session 11 - 3D Mesh and Geometric Modelling (Chair: Wonsook Lee)**


43. Lin Zhang, Fei Dou, Zhong Zhou and Wei Wu. Sharing 3D Mesh Animation in Distributed Virtual Environment
44. Moon-Hwan Jeong and Hyeong-Seok Ko. Draft-Space Warping: Grading of Clothes Based on Parametrized Draft
45. Yadang Chen, Chuanyan Hao, Zhongmou Cai, Wen Wu and Enhua Wu. Live Accurate and Dense Reconstruction from a Handheld Camera
46. Ting Zhang, Xingce Wang, Qianqian Jiang, Zhongke Wu, Mingquan Zhou and Hock Soon Seah. G2-Continuity Disk B-Spline Curve Blending using Extension
9. Taekwon Jang, Doyub Kim, Mi You, Shiguang Liu and Junyong Noh. A Geometric Approach to Animating Thin Surface Features in SPH Water

### **Session 12 - Human Motion (Chair: Tolga Capin)**

47. Tian Qi, Yinfu Feng, Jun Xiao, Yueting Zhuang, Xiaosong Yang and Jianjun Zhang. A Semantic Feature for Human Motion Retrieval
48. Siwang Li, Jin Huang, Mathieu Desbrun and Xiaogang Jin. Interactive Elastic Motion Editing through Spacetime Position Constraints
49. Hubert P. H. Shum, Ludovic Hoyet, Edmond S. L. Ho, Taku Komura and Franck Multon. Preparation Behaviour Synthesis with Reinforcement Learning

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50. Thibaut Le Naour, Nicolas Courty and Sylvie Gibet. Spatio-temporal coupling with the 3D+t motion Laplacian
  51. Gamze Bozgeyikli, Evren Bozgeyikli and Veysi İşler. Introducing Tangible Objects into Motion Controlled Gameplay Using Microsoft® Kinect™

### **Posters**

52. Bui Minh Tuan, Junho Kim and Yunjin Lee. Real-Time Stylization of Smoke Animations
  53. Sangwoo Lee, Younghui Kim, Jungjin Lee, Kyehyun Kim, Kyunghan Lee and Junyong Noh. Depth Manipulation using Disparity Histogram Analysis for Stereoscopic 3D
  54. Azizkhon Afzalov, Edmond Prakash and Mehmet Aydin. Novel Techniques for Moving Target Search in Dynamic Environments
  55. Daying Lu, Dengming Zhu and Zhaoqi Wang. 3D Visualization of Atmospheric Pollution
  56. Abdullah Bulbul, Sami Arpa, Tolga Capin, Motion Saliency Model for 3D Animated Meshes
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