10:00–10:25 *Taming Liquids for Rapidly Changing Targets*
**Lin Shi, Yizhou Yu**

10:25–10:50 *Particle-Based Fluid-Fluid Interaction*
**Matthias Mueller, Barbara Solenthaler, Richard Keiser, Markus Gross**

10:50–11:05 Break (in Ballroom foyer)

## SESSION 10: Fluids-B
Chair: Yizhou Yu, U. of Illinois, Urbana-Champaign

11:05–11:30 *Adapted Unstructured LBM for Flow Simulation on Curved Surfaces*
**Zhe Fan, Ye Zhao, Arie Kaufman, Ying He**

11:30–11:55 *Fluids in Deforming Meshes*
**Bryan Feldman, James O'Brien, Bryan Klingner, Tolga Goktekin**

11:55–12:20 *Vortex Fluid for Gaseous Phenomena*
**Sang Il Park, Myoung Jun Kim**

12:20–13:30 Lunch (no event planned)

## SESSION 11: Motion Planning and Crowds
Chair: Ronald Metoyer, Oregon State University

13:30–13:55 *Behavior Planning for Character Animation*
**Manfred Lau, James Kuffner**

13:55–14:20 *Group Motion Graphs*
**Yu-Chi Lai, Stephen Chenney, ShaoHua Fan**

14:20–14:45 *Fast and Accurate Goal-directed Motion Synthesis for Crowds*
**Mankyu Sung, Lucas Kovar, Michael Gleicher**

14:45–15:00 Break (in Ballroom foyer)

## SESSION 12: Rigging and Hands
Chair: Paul Kry, Rutgers University

15:00–15:25 *Physically Based Rigging for Deformable Characters*
**Steve Capell, Matthew Burkhart, Brian Curless, Tom Duchamp, Zoran Popovic**

15:25–15:50 *Physically Based Grasping Control from Example*
**Nancy Pollard, Victor Zordan**

15:50–16:15 *Helping Hand: An Anatomically Accurate Inverse Dynamics Solution for Unconstrained Hand Motion*
**Winnie Tsang, Karan Singh, Eugene Fiume**

16:15–16:40 *Outside-In Anatomy Based Character Rigging*
**Michael Pratscher, Patrick Coleman, Joe Laszlo, Karan Singh**

16:40–17:05 Award and Conclusion

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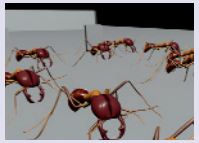

2005 EG

# Symposium on Computer Animation 2005

ACM SIGGRAPH/Eurographics
Symposium Program


Conference Chairs:
Demetri Terzopoulos,
*New York University*

Victor Zordan,
*University of California at Riverside*

Program Chairs:
Ken Anjyo,
*OLM Digital, Inc.*

Petros Faloutsos,
*University of California at Los Angeles*

July 29–31, 2005
Los Angeles, California, USA

# SCA 2005 PROGRAM

Unless otherwise specified, all events take place in the Regency Ballroom, Sheraton Los Angeles Downtown Hotel

## FRIDAY JULY 29, 2005

10:00–13:00 Registration open at the hotel (in Ballroom foyer)

13:00–13:15 Introduction

13:15–14:15 Keynote: *Learning Theory and Applications*
**Professor Tomaso Poggio (MIT)**

14:15–14:20 Short Break

### SESSION 1: Artificial Intelligence for Animation
Chair: Norman Badler, U. of Pennsylvania

14:20–14:45 *Imitation as a First Step to Social Learning in Synthetic Characters: A Graph-based Approach*
**Daphna Buchsbaum, Bruce Blumberg**

14:45–15:10 *Animating Autonomous Pedestrians in Urban Environments*
**Wei Shao, Demetri Terzopoulos**

### SESSION 2: Motion Capture and Editing
Chair: Jehee Lee, Seoul National University

15:10–15:35 *Motion Modeling for On-Line Locomotion Synthesis*
**Taesoo Kwon, Sung Yong Shin**

15:35–16:00 *Capture and Synthesis of Insect Motion*
**David Gibson, David Oziem, Colin Dalton, Neill Campbell**

16:00–16:15 Break (refreshments in Ballroom foyer)

16:15–16:40 *Video-Based Character Animation*
**Jonathan Starck, Gregor Miller, Adrian Hilton**

16:40–17:05 *Pushing People Around*
**Okan Arikan, David Forsyth, James O'Brien**

17:05–17:30 *An Efficient Search Algorithm for Motion Data Using Weighted PCA*
**Kevin Forbes, Eugene Fiume**

17:30–17:40 Short Break

17:40–18:40 Poster Fast-Forward

18:40–20:40 Poster Reception/Welcome (in Ballroom foyer)

## SATURDAY JULY 30, 2005

### SESSION 3: Natural Phenomena
Chair: William Baxter, OLM Digital

09:00–09:25 *Particle-Based Simulation of Granular Materials*
**Nathan Bell, Yizhou Yu, Peter Mucha**

09:25–09:50 *Simulation of Smoke Based on Vortex Filament Primitives*
**Alexis Angelidis, Fabrice Neyret**

09:50–10:15 *Modeling and Animating Gases with Simulation Features*
**Joshua Schpok, William T. Dwyer, David S. Ebert**

10:15–10:30 Break (in Ballroom foyer)

### SESSION 4: Interfaces and Interactive Techniques for Animation
Chair: Ronan Boulic, EPFL

10:30–10:55 *Spatial Keyframing for Performance-driven Animation*
**Takeo Igarashi, Tomer Moscovich, John Hughes**

10:55–11:20 *An Art-Directed Wrinkle System for CG Character Clothing*
**Larry Cutler, Reid Gershbein, Xiaohuan Corina Wang, Cassidy Curtis,Erwan Maigret, Luca Prasso, Peter Farson**

11:20–11:45 *Directable Animation of Elastic Objects*
**Ryo Kondo, Takashi Kanai, Ken-ichi Anjyo**

11:45–12:10 *Morphable Model of Quadrupeds Skeletons for Animating 3D Animals*
**Lionel Reveret, Laurent Favreau, Christine Depraz, Marie-Paule Cani**

12:10–13:30 Lunch (no event planned)

### SESSION 5: Faces and Hair
Chair: John Lewis, Graphics Primitive

13:30–13:55 *Transferable Videorealistic Speech Animation*
**Yao-Jen Chang, Tony Ezzat**

13:55–14:20 *Simulating Complex Hair with Robust Collision Handling*
**Byoungwon Choe, Min Gyu Choi, Hyeong-Seok Ko**

### SESSION 6: Performance Animation and Motion Quality
Chair: Lucas Kovar, U. of Wisconsin, Madison

14:20–14:45 *AER: Aesthetic Exploration and Refinement for Expressive Character Animation*
**Michael Neff, Eugene Fiume**

14:45–15:10 *Analyzing the Physical Correctness of Interpolated Human Motion*
**Alla Safonova, Jessica Hodgins**

15:10–15:25 Break (in Ballroom foyer)

### SESSION 7: Deformable Models
Chair: Rick Parent, Ohio State University

15:25–15:50 *Robust Quasistatic Finite Elements and Flesh Simulation*
**Joseph Teran, Eftychios Sifakis, Geoffrey Irving, Ronald Fedkiw**

15:50–16:15 *Progressive Multiresolution Meshes for Deforming Surfaces*
**Scott Kircher, Michael Garland**

### SESSION 8: Non-Photorealistic Animation and Compression
Chair: Stephen Chenney, U. of Wisconsin, Madison

16:15–16:40 *Animosaics*
**Kaleigh Smith, Yunjun Liu, Allison Klein**

16:40–17:05 *Simple and Efficient Compression of Animation Sequences*
**Mirko Sattler, Ralf Sarlette, Reinhard Klein**

18:30–20:30 Electronic Arts Reception (in Polaris Room)

## SUNDAY JULY 31, 2005

08:30–09:30 Keynote (TBA)

09:30–09:35 Short Break

### SESSION 9: Fluids-A
Chair: Hyeong-Seok Ko, Seoul National University

09:35–10:00 *Particle-based Viscoelastic Fluid Simulation*
**Simon Clavet, Philippe Beaudoin, Pierre Poulin**