

## Posters

- 1. Redesign of classic information visualization techniques in an artistic computing perspective**  
Benoît Otjacques and Fernand Feltz
- 2. Simulation and Optimisation of Display Visibility**  
Daniel Dreyer
- 3. Cognitive Evaluation of Uncertainty Visualization Methods for Decision Making**  
Maria Riveiro
- 4. Incorporating visual attention into mesh simplification techniques**  
Susana Mata, Luis Pastor, Juan José Aliaga and Angel Rodríguez
- 5. An innovative motoric measure for the perception of slant: a comparative study in real and virtual environments**  
Nicholaos Mourkoussis, Fiona Rivera, Tom Troscianko, Katerina Mania and Rycharde Hawkes
- 6. Redundancy Reduction in 3D Facial Motion Capture Data for Animation**  
Daniela Wellein, Cristóbal Curio and Heinrich Bühlhoff
- 7. Perceptual Uniformity of Contrast Scaling in Complex Images**  
Akiko Yoshida, Grzegorz Krawczyk, Karol Myszkowski and Hans-Peter Seidel
- 8. 3D facial expression analysis based on statistical landmark information**  
Jacey-Lynn Minoi and Duncan Gillies
- 9. Left-Right Errors for Visual Path Integration in VR: More Than a Failure to Update One's Heading?**  
Bernhard Riecke
- 10. Spatial properties of light fields in natural scenes**  
Alexander Mury, Sylvia Pont and Jan Koenderink
- 11. Gazing with pEYE: New concepts in eye typing**  
Anke Huckauf and Mario Urbina
- 12. Physical Self-Motion Facilitates Object Recognition, but does not Enable View Independence**  
Wataru Teramoto and Bernhard Riecke
- 13. Exploring artistic possibilities of sensory fusion of color and music**  
Asako Fukumoto, Koji Tsukada, Jun Kurumisawa and Dong Sheng Cai
- 14. Experimental Investigations into the Feasibility of Using Augmented Walking to Facilitate the Intuitive Exploration of Large Scale Immersive Virtual Environments**  
Victoria Interrante, Lee Anderson, Brian Ries, Eleanor O'Rourke and Leanne Gray
- 15. Orthographic and Perspective Projection Influences Linear Vection in Virtual Environments**  
Laura Trutoiu, Silvia-Dana Marin, Betty Mohler and Claude Fennema
- 16. Contributions of Visual Flow & Locomotor Cues to Walked Distance Estimation in a Virtual Environment**  
Jennifer Campos, John Butler, Betty Mohler and Heinrich Bühlhoff



# APGV07

applied perception in graphics and visualization

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Veronica Sundstedt, University of Bristol, UK

### Program Chairs

Roland Fleming, MPI for Biological Cybernetics, Germany  
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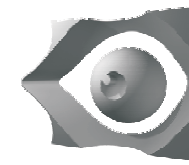
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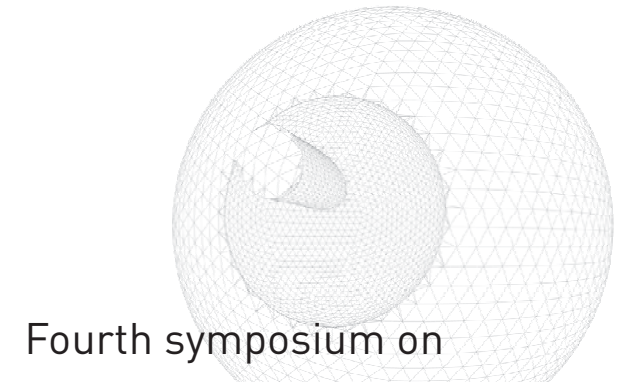
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**July 25-27, 2007**  
**Tübingen, Germany**



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Fourth symposium on  
**applied perception  
in graphics and  
visualization**

Conference Program

**July 25-27, 2007**  
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## Wednesday, July 25

### Registration (2:00–5:00)

2:00 Registration in the Kupferbau

5:00 Bus to Max Planck Institute from Neckarbrücke

5:15 Bus to Max Planck Institute from Kupferbau

### Tour of Max Planck Institute for Biological Cybernetics (5:30–7:00)

7:00 Reception at Max Planck Institute

## Thursday, July 26 morning

8:30 Opening Remarks

### Faces and Animation (8:35–10:10)

#### Session Chair: Douglas Cunningham

8:35 **Virtual Shapers & Movers: Form and Motion affect Sex Perception**  
Rachel McDonnell, Sophie Joerg, Jessica Hodgins, Fiona Newell and Carol O'Sullivan

8:50 **Psychophysical Investigation of Facial Expressions Using Computer Animated Faces**  
Rita Griesser, Douglas W. Cunningham, Christian Wallraven and Heinrich H. Bühlhoff

9:10 **Using 3D computer graphics for perception: The role of local and global information in face processing**  
Adrian Schwaninger, Sandra Schumacher, Christian Wallraven and Heinrich H. Bühlhoff

9:30 **Perception and prediction of simple object interactions**  
Manfred Nusseck, Roland Fleming, Julien Lagarde, Benoît Bardy and Heinrich H. Bühlhoff

9:50 **INVITED TALK: Perception Issues in Face Modeling Tasks**  
Volker Blanz

10:10–11:00 Coffee Break

**NOTE: Poster Presenters don't forget to hang your posters**

## Virtual Environments (11:00–12:00)

### Session Chair: Betty Mohler

11:00 **Distance Estimation in Virtual and Real Environments using Bisection**  
Bobby Bodenheimer, Jingjing Meng, Haojie Wu, Gazathri Narasimham, Bjoern Rump, Timothy McNamara, Thomas Carr and John Rieser

11:20 **Exploring Large Virtual Environments with an HMD when Physical Space is Limited**  
Betsy Williams, Gayathri Narasimham, Bjoern Rump, Timothy McNamara, Thomas Carr, John Rieser and Bobby Bodenheimer

11:40 **On the empirical limits of billboard rotation**  
Elodie Fourquet, William Cowan and Stephen Mann

12:00–1:45 Lunch

## Thursday, July 26 afternoon

### Rendering and Surfaces (1:45–2:55)

#### Session Chair: Carol O'Sullivan

1:45 **A Roughness Measure for 3D Mesh Visual Masking**  
Guillaume Lavoué

2:00 **A Perceptual Approach to Trimming Unstructured Lumigraphs**  
Yann Morvan and Carol O'Sullivan

2:20 **2½ D texture mapping: real-time perceptual surface roughening**  
Sylvia Pont, Pradeep Sen and Pat Hanrahan

2:35 **INVITED TALK: Fidelity metrics for high dynamic range images**  
Rafal Mantiuk

2:55–3:45 Coffee Break  
(Poster Presenters prepare for Fast Forward session)

### POSTERS FAST FORWARD (3:45– 4:15)

### POSTERS (4:15–5:30) see backpage for list

5:30–6:30 **KEYNOTE LECTURE: Dynamic Range and Visual Perception**  
Greg Ward

## Friday, July 27

### Rendering and Surfaces II (8:30–10:10)

#### Session Chair: Victoria Interrante

8:30 **On seeing and rendering colour gradients**  
Alexa Ruppertsberg, Anya Hurlbert and Marina Bloj

8:50 **A Perceptive Evaluation of Volume Rendering Techniques**  
Christian Boucheny, Georges-Pierre Bonneau, Jacques Droulez, Guillaume Thibault and Stephane Ploix

9:10 **Is Accurate Occlusion of Glossy Reflections Necessary?**  
Oscar Kozłowski and Jan Kautz

9:30 **Distortion in 3D shape estimation with changes in illumination**  
Franck Caniard and Roland Fleming

9:50 **INVITED TALK: The Influence of Shape on the Perception of Material Reflectance**  
Philip Dutré

10:10–10:45 Coffee Break

### Images and Displays (10:45–12:05)

#### Session Chair: Erik Reinhard

10:45 **Hybrid Image-/Model-Based Gaze-Contingent Rendering**  
Hunter Murphy and Andrew Duchowski

11:05 **Psychophysics for Perception of (In)determinate Art**  
Christian Wallraven, Kathrin Kaulard, Cora Kürner, Robert Pepperell and Heinrich H. Bühlhoff

11:25 **A Statistical Approach for Image Difficulty Estimation in X-Ray Screening**  
Adrian Schwaninger, Anton Bolfig and Stefan Michel

11:45 **INVITED TALK: The Visual Computing of Projector-Camera Systems**  
Oliver Bimber

### Business Meeting (12:05–12:45)

### Closing