



ACM Symposium on Applied Perception

Conference Program

PREFACE

It is our pleasure to present the proceedings of the international ACM Symposium on Applied Perception (SAP), held on September 16-17, 2017 at the Brandenburg University of Technology in Cottbus, Germany. The conference chairs are Douglas Cunningham and Michael Breuß.

As is customary for SAP, conferences held in odd years are typically hosted in Europe. SAP, formerly known as APGV, aims to broadly support and promote interdisciplinary research at the intersection of perception and computer science, focusing on disciplines such as computer graphics, virtual reality, vision science, haptics and acoustics. Our fourteenth annual event features exciting new research touching all of these disciplines.

This year's program includes 18 papers selected from 37 total submissions via rigorous peer review by our international program committee. Five of these 18 papers were invited to appear in a special issue of the ACM Transactions on Applied Perception; the other 13 papers are published here in the conference proceedings.

Our lively conference program this year also includes keynote talks from Catherine Pelachaud and Martin Giese, as well as a panel on state-of-the-art research endeavors in Applied Perception and an informal poster session with 9 submissions overseen by Susana Castillo Alejandre.

We are deeply grateful to Stephen Spencer, chair of the ACM SIGGRAPH Publications Committee, whose diligence and effort brought these proceedings successfully together as a coherent whole. We thank the ACM publications board for supporting the idea of fast-tracking select publications directly into TAP, and the TAP editorial staff for working closely with us to insure that the papers were available in the Digital Library by the time of the symposium.

Finally, the proceedings represent a snapshot of a fast-moving interdisciplinary field at one moment in time. We wholeheartedly thank those members of the field who invested time and energy in the symposium by submitting their work, or by reviewing the submitted work. We saw the work over the course of the submission and review process, and are proud of its quality and the resulting volume.

SAP 2017 Chairs

SAP 2017 Conference Chairs

Douglas W. Cunningham | Brandenburg University of Technology
Michael Breuß | Brandenburg University of Technology

SAP 2017 Program Chairs

Sophie Jörg | Clemson University
Victoria Interrante | University of Minnesota

SAP 2017 Poster Chair

Susana Castillo | Brandenburg University of Technology

Saturday, 16th September 2017

08:00-09:00 | Conference Registration

09:00-09:15 | Welcome and Opening Remarks

9:15-10:15 | Keynote Speaker: Catherine Pelachaud

10:15-10:40 | Coffee Break

10:40-12:00 | Paper Session 1

Chair: Katja Zibrek

Lorraine Lin, Sophie Jörg, Dhaval Parmar, Alison Leonard, Shaundra Daily, Sabarish Babu

How Character Customization Affects Learning in Computational Thinking

Jan-Philipp Tauscher, Maryam Mustafa, Marcus Magnor
(Published in a special issue of ACM Transactions on Applied Perception)

Comparative analysis of three different modalities for perception of artifacts in videos

Yuanyuan Jiang, Elizabeth E. O'Neal, Luke Franzen, Junghum Paul Yon, Jodie M. Plumert, Joseph K. Kearney

The Influence of Stereoscopic Image Display on Pedestrian Road Crossing in a Large-Screen Virtual Environment

Robert Günther, Stefan Guthe, Michael Guthe

A Visual Model for Quality Driven Refinement of Global Illumination on GPUs

12:00-12:30 | Poster Fast-Forward

Saturday, 16th September 2017

12:30-15:00 | On-Site Lunch and Poster Session

15:00 - 15:20 | Coffee Break

15:20-17:00 | Paper Session 2

Chair: Manfred Lau

Sophie Kenny, Naureen Mahmood, Claire Honda, Michael J. Black, Nikolaus F. Troje

Effects of animation retargeting on perceived action outcomes

Katherine Breeden, Pat Hanrahan
(Published in a special issue of ACM Transactions on Applied Perception)

Gaze Data for the Analysis of Attention in Feature Films

Onkar Krishna, Kiyoharu Aizawa

Age-adapted Saliency Model With Depth Bias

Xihe Gao, Stephen Brooks, Dirk Arnold
(Published in a special issue of ACM Transactions on Applied Perception)

A Feature-based Quality Metric for Tone Mapped Images

Andreas Löcken, Sarah Blum, Tim Claudius Stratmann, Uwe Wilko Grünfeld, Wilko Heuten, Susanne Boll, Steven van de Par

Effects of Location and Fade-In Time of (Audio-)Visual Cues on Response Times and Success-Rates in a Dual-Task Experiment

19:00 | Conference Dinner and Social Event



Catherine Pelachaud



Martin Giese

Sunday, 17th September 2017

08:00-09:15	Registration
09:15-10:35	Paper Session 3
	Chair: Joe Kearney
	Simon Alexanderson, Carol O'Sullivan, Michael Nef, Jonas Beskow (Published in a special issue of ACM Transactions on Applied Perception)
	Mimebot - Investigating the Expressivity of Non-Verbal Communication Across Robot and Agent Embodiments
	Richard Paris, Miti V. Joshi, Qiliang He, Gayathri Narasimham, Timothy P. McNamara, Bobby Bodenheimer
	Acquisition of Survey Knowledge using Walking in Place and Resetting Methods in Immersive Virtual Environments
	Wei Fu, Marinus Maria van Paassen, Max Mulder
	On the Relationship Between the Force JND and the Stiffness JND in Haptic Perception
	Katja Zibrek, Rachel McDonnell, Elena Kokkinara
	Don't Stand So Close To me: Investigating the effect of control on the appeal of virtual humans using immersion and a proximity-based behavioural task
10:35-11:00	Coffee Break
11:00-12:00	Panel Session
12:00-14:00	Off-Site Lunch

Sunday, 17th September 2017

14:00-15:40	Paper Session 4
	Chair: Bobby Bodenheimer
	Steve Grogorick, Michael Stengel, Elmar Eisemann, Marcus Magnor
	Subtle Gaze Guidance for Immersive Environments
	Rachel Albert, Joochwan Kim, Anjul Patney, David Luebke (Published in a special issue of ACM Transactions on Applied Perception)
	Latency Requirements for Foveated Rendering in Virtual Reality
	Koorosh Vaziri, Peng Liu, Sahar Aseeri, Victoria Interrante
	Impact of Visual and Experiential Realism on Distance Perception in VR using a Custom Video See-Through System
	Zhen Bao Fan, Yina Li, Jinhui Yu, Kang Zhang
	Visual Complexity of Chinese Ink Paintings
	Anahita Sanandaji, Cindy Grimm, Ruth West
	Inferring Cross-sections of 3D Objects: A 3D Spatial Ability Test Instrument for 3D Volume Segmentation
15:40-16:00	Coffee Break
16:00-17:00	Capnote Speaker: Martin Giese
17:00	Closing Remarks, Awards and Farewell

POSTERS

Wolfgang Höhl
Open Innovation and Applied Interactive Technologies
Benedikt Reschberger, Wolfgang Höhl
Realtime Mesh Editing with Virtual Tools in an Immersive Virtual Environment
Michael Kjær Schmidt, Danish Shaikh
Three-dimensional sound localisation with a lizard peripheral auditory model
Benjamin Knopp, Moritz Schubert, Dominik Endres
Temporal Movement Primitive Perception under Naturalistic Conditions
Yuanyuan Jiang, Elizabeth E. O'Neal, Shiwen Zhou, Jodie M. Plumert, Joseph K. Kearney
Crossing Roads with a Computer-Generated Agent: Lasting Effects on Perception-Action Tuning
Luther Power, Manfred Lau
Schelling Meshes
Banafsheh Azari, Sven Bertel, Charles A. Wuethrich
Validating Objective Image Quality Metrics for Compressed Bidirectional Texture Functions
Joao Pedro Jorge, David Gutierrez
Reducing Discomfort in Eye-Trackted HMDs using Defocus Blur
Anahita Sanandaji, Cindy Grimm, Ruth West
Capturing How Data Influences Tool Choice in 3D Volume Segmentation

Sponsored by



Association for Computing Machinery



Disney Research



ACM SIGGRAPH



Brandenburg University of Technology Cottbus - Senftenberg

