

**IEEE Int. Symposium on
Haptic Audio-Visual Environments and Games (HAVE 2012)
October 8-9, 2012, Munich, Germany**

**Technical Program
(2012-09-17)**

Monday, October 8 / Morning

08:00 – 08:50 Registration

08:50 – 09:00 Welcome

09:00 – 10:00 **Keynote**

Approaches to human-machine interfacing: in and out the body
Patrick van der Smagt (DLR/TUM, Germany)

10:00 – 10:30 Coffee Break

10:30 – 12:10 **Session 1: Psychophysics and perceptual aspects**

- **Perceived Intensity of Tool-Transmitted Vibration: Effects of Amplitude and Frequency.** *Inwook Hwang, Jongman Seo, Myongchan Kim, Seungmoon Choi (Pohang University of Science and Technology, Republic of Korea)*
- **Conveying perceptible virtual tactile maps with a minimalist sensory substitution device.** *Luca Brayda and Claudio Campus (Italian Institute of Technology, Italy)*
- **How to improve group performances on colocated synchronous manipulation tasks?** *Jean Simard, Adrien Girard, Anais Mayeur, Mehdi Ammi (CNRS-LIMSI, Univ. Paris-Sud, France)*
- **Tone-2 Tones Discrimination Task Comparing Audio and Haptics.** *Lorenzo Picinali (De Montfort University, UK), Christopher Feakes (De Montfort University, UK), Davide Mauro (Università degli Studi di Milano, Italy), and Brian FG Katz (LIMSI-CNRS, Université Paris-Sud, France).*

12:10 – 13:40 **Lunch Break**

Monday, October 8 / Afternoon

13:40 – 15:20 **Session 2: Teleoperation**

- **Towards Multi-DOF Model Mediated Teleoperation: Using Vision to Augment Feedback.** *Bert Willaert (KU Leuven, Belgium), Jeannette Bohg (Max Planck Institute for Intelligent Systems, Tübingen, Germany), Hendrik*

Van Brussel (KU Leuven, Belgium), Günter Niemeyer (Willow Garage Inc., Menlo Park, USA)

- **Bi-modal assistance functions and their effect on user perception and movement coordination with telesurgery systems.** *Verena Nitsch, Berthold Färber (Universität der Bundeswehr München, Munich, Germany), Anja Hellings, Stefan Jörg, Andreas Tobergte, Rainer Konietschke (Institute for Robotics and Mechatronics, DLR, Oberpfaffenhofen, Germany)*
- **Adaptive Impedance Control of a Haptic Teleoperation System for Improved Transparency.** *Uhn Joo Na, Minh Hung Vu (Kyungnam University, Changwon, Korea)*
- **Stability Analysis of Haptic Shared control and its Application on a Mobile Assistive Robot.** *Huanran Wang, Xiaoping P. Liu (Carleton University, Ottawa, Canada)*

15:20 – 15:50 Coffee Break

15:50 – 17:30 **Session 3: Evaluation and Quality of Experience**

- **Evaluation of Driving Skills Using an HMM-based Distance Measure.** *Reza Haghighi Osgouei and Seungmoon Choi (Pohang University of Science and Engineering, Republic of Korea)*
- **Evaluating the Quality of Experience of Haptic-based Applications through Mathematical Modeling.** *Abdelwahab Hamam and Abdulmotaleb El Saddik (University of Ottawa, Canada)*
- **Comparison of In-Car Touchpads With Adaptive Haptic Feedback.** *Andreas Blattner, Klaus Bengler (Technische Universität München, Germany), Werner Hamberger (AUDI AG, Ingolstadt, Germany), Sebastian Schnieder (University of Wuppertal, Germany)*
- **Evaluating Transport and Application Layer Protocols for Haptic Applications.** *G. Kokkonis, K. E. Psannis, M. Roumeliotis, S. Kontogiannis (University of Macedonia, Greece), Y. Ishibashi (Nagoya Institute of Technology, Japan)*

18:00 Aperitif

18:30 Workshop Dinner (Löwenbräukeller München)

Tuesday, October 9 / Morning

09:00 – 10:40 **Session 4: Man Machine Interaction**

- **A Robust Method of Detecting Hand Gestures Using Depth Sensors.** *Yan Wen, Chuanyan Hu, Guanghui Yu, Changbo Wang (East China Normal University, Shanghai, China)*
- **Dynamic Hand Gesture Recognition from Bag-of-Features and Local Part Model.** *Muhammad R. Abid, Feng Shi and Emil M. Petriu (University of Ottawa, Canada)*

- **Robotic Gaze Control using Reinforcement Learning.** *Martin Rothbucher, Christian Denk, Klaus Diepold (Technische Universität München, Germany)*
- **Analyzing Human and Virtual Agent Interaction Under Irrational Decision Making.** *Mohammad H. Mamduhi and Sandra Hirche (Technische Universität München, Germany)*

10:40 – 11:10 Coffee Break

11:10 – 12:00 **Session 5: Applications and case studies I**

- **Audio-Haptic You-are-here Maps On a Mobile Touch-enabled Pin-Matrix Display.** *Limin Zeng, Gerhard Weber (Technische Universität Dresden, Germany), Ulrich Baumann (Metec AG, Stuttgart)*
- **Skin Stretch Feedback for Gaming Environments.** *Ashley L. Guinan, Markus N. Montandon, Nathaniel A. Caswell, and William R. Provancher (University of Utah, USA)*

12:00 – 13:30 Lunch Break

Tuesday, October 9 / Afternoon

13:30 – 15:40 **Session 6: Applications and case studies II**

- **Haptic Rendering of Photographs.** *David Lareau and Jochen Lang (University of Ottawa, Canada)*
- **3D Compositing: Object insertion based on 2.5D format.** *Suxing Liu, Monica Caballero (Fundacio Barcelona Media, Barcelona, Spain)*
- **Haptic designation strategy for collaborative molecular modeling.** *Adrien Girard, Malika Auvray, Mehdi Ammi (CNRS-LIMSI, Paris-Sud University, Orsay, France)*
- **Design of a serious game for learning vibrotactile messages.** *Bob-Antoine J. Menelas, Martin J.-D. Otis (University of Quebec at Chicoutimi, Canada)*
- **The HTML5 Haptics Plugin.** *Hussein Al Osman, Jongeun Cha and Abdulmotaleb El Saddik (University of Ottawa, Canada)*

15:20 – 16:00 Coffee Break and Farewell