

## **New Frontiers in Human-Robot Interaction**

A two-day symposium at AISB 2009 (6-9 April 2009), Heriot-Watt University in Edinburgh, Scotland  
<http://homepages.feis.herts.ac.uk/~comqkd/HRI-AISB2009-Symposium.html>

Held during the Science Festival (6-18 April 2009): <http://www.sciencefestival.co.uk/>

### **Draft Programme**

#### **Wednesday 8<sup>th</sup> April 2009**

##### **9:00-9:05 Opening and Welcome**

**9:05-10:30 Session: Human-Robot Communication and Collaboration** (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Aris Alissandrakis, Tokyo Institute of Technology, Japan)

*Heuristic Rules for Human-Robot Interaction Based on Principles from Linguistics - Asking for Directions*

Andrea Bauer and Barbara Gonsior and Dirk Wollherr and Martin Buss (Technische Universität München, Germany)

*A WOz Framework for Exploring Miscommunication in HRI*

Theodora Koulouri, Stasha Lauria (University of Brunel, UK)

*Exploring the use of a handheld device in language teaching human-robot interaction*

Pierre Rouanet, Pierre-Yves Oudeyer (INRIA, France)

*A dynamic field approach to goal inference and error monitoring for human-robot interaction*

Estela Bicho, Luís Louro, Nzoji Hipólito, Wolfram Erlhagen (University of Minho, Portugal)

##### **10:30-11:00 Coffee Break**

**11:00-12:30 Session: Companions** (4 contributed papers, 15 min each for presentation, followed by 25 min discussion of all session papers, chaired by Kerstin Dautenhahn, University of Hertfordshire, UK)

*Human to Robot Demonstrations of Routine Home Tasks: Acknowledgment and Response to the Robot's Feedback*

Aris Alissandrakis and Yoshihiro Miyake (Tokyo Institute of Technology, Japan)

*An Architecture Supporting Proactive Robot Companion Behavior*

Muhammad Ali and Samir Alili, Matthieu Warnier, Rachid Alami (CNRS-LAAS, France)

*The boy-robot should bark! – Children's Impressions of Agent Migration into Diverse Embodiments*

Dag Sverre Syrdal, Kheng Lee Koay, Michael L. Walters, Kerstin Dautenhahn (University of Hertfordshire, UK)

*Preferences and Perceptions of Robot Appearance and Embodiment in Human-Robot Interaction Trials*

Michael L. Walters, Kheng Lee Koay, Dag Sverre Syrdal, Kerstin Dautenhahn and René te Boekhorst (University of Hertfordshire, UK)

**12:30-13:00 Short Invited Talk** (20 min talk plus 10 min discussion)

*Affect, empathy and graphical characters*

Ruth Aylett (Heriot-Watt University, Scotland)

**13:00-14:00 Lunch Break**

**14:00-15:30 Session: Human-Robot Interaction Design** (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Astrid Weiss, University of Salzburg, Austria)

*Iterative design process for robots with personality*

Bernt Meerbeek, Martin Saerbeck, Christoph Bartneck (Philips Research, NL; Univ. of Tech. Eindhoven, NL)

*Affective-Centered Design for Interactive Robots*

Laurel D. Riek, Peter Robinson (University of Cambridge, UK)

*Using Visual Attention to Evaluate Collaborative Control Architectures for Human Robot Interaction*

Tom Carlson, Yiannis Demiris (Imperial College London, UK)

*An Empirical Framework for Human-Robot Proxemics*

Michael L Walters, Kerstin Dautenhahn, René te Boekhorst, Kheng Lee Koay, Dag Sverre Syrdal, Chrystopher L. Nehaniv (University of Hertfordshire, UK)

**15:30-16:00 Coffee Break**

**16:00-16:45 Session: Human-Robot Perceptions** (2 contributed papers, 15 min each for presentation, followed by 15 min discussion of all session papers, chaired by Dag S. Syrdal, University of Hertfordshire, UK)

*Addressing User Experience and Societal Impact in a User Study with a Humanoid Robot*  
Astrid Weiss, Regina Bernhaupt, Manfred Tscheligi, Eiichi Yoshida (University of Salzburg, Austria; University Paul Sabatier, France; National Institute of Advanced Industrial Science and Technology, Japan)

*Video observation of humanoid robot movements elicits motor interference*  
Aleksandra Kupferberg, Stefan Glasauer, Markus Huber, Markus Rickert, Alois Knoll, Thomas Brandt (Ludwig-Maximilians-Univ. Munich, Germany; Technical Univ. München, Germany)

**16:45-17:15 Short Invited Talk** (20 min talk plus 10 min discussion)  
*Integration of Therapeutic Robot, Paro, into Elderly Care in Denmark*  
Takanori Shibata (National Institute of Advanced Industrial Science and Technology, Japan)

**17:15 end of day 1 of symposium**

**Followed by Dinner and Keynote AISB talk which starts at 18:30**

---

**Thursday 9<sup>th</sup> April 2009**

**9:00-10:30 Session: Human-Robot Interfaces and Designs** (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Holly Yanco, University of Massachusetts Lowell, USA)

*Haptic Control for the Interactive Behavior Operated Shopping Trolley InBOT*  
Michael Göller and Thilo Kerscher and Marco Ziegenmeyer, Arne Rönna, J.Marius Zöllner, Rüdiger Dillmann (FZI Research Center for Information Technology, Karlsruhe, Germany)

*Photogeometric Sensing for Mobile Robot Control and Visualisation Tasks*  
Alonzo Kelly, Dean Anderson, Erin Capstick, Herman Herman, Pete Rander (Carnegie Mellon University, USA; DCS Corporation, USA)

*Supporting Remote Manipulation with an Ecological Augmented Virtuality Interface*  
J. Alan Atherton, Michael A. Goodrich (Brigham Young University, USA)

*The Advantage of Mobility: Mobile Tele-operation for Mobile Robots*  
Alberto Valero, Gabriele Randelli, Chiara Saracini, Fabiano Botta, Massimo Mecella (SAPIENZA - Università di Roma, Italy)

**10:30-11:00 Coffee Break**

**11:00-11:45 Session: Human-Robot Design Proposals** (2 contributed papers, 15 min each for presentation, followed by 15 min discussion of all session papers, chaired by Michael L. Walters, University of Hertfordshire, UK)

*Baby steps: A design proposal for more believable motion in an infant-sized android*  
SilpaWairatpanij, Himalaya Patel, Gary D. Cravens, and Karl F. MacDorman (Indiana University, USA)

*Toward Therapist-in-the-Loop Assistive Robotics for Children with Autism and Specific Language Impairment*

Mark B. Colton, Daniel J. Ricks, Michael A. Goodrich, Behzad Dariush, Kikuo Fujimura, and Martin Fujiki (Brigham Young University, USA; Honda Research Institute, USA)

**11:45-13:00 Invited Keynote Talk** (50 min talk plus 25 min discussion)

*How to Partner with a Robot: The Design Space of Human-Robot Interaction*  
Holly Yanco (University of Massachusetts Lowell, USA)

**13:00-14:00 Lunch Break**

**14:00-15:30 Session: Human-Robot Attitudes and Evaluations** (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Wolfram Erlhagen, University of Minho, Portugal)

*The role of expectations in HRI*  
Manja Lohse (University of Bielefeld, Germany)

*The Negative Attitudes towards Robots Scale and Reactions to Robot Behaviour in a Live Human-Robot Interaction Study*

Dag Sverre Syrdal, Kerstin Dautenhahn, Kheng Lee Koay, Michael L. Walters (University of Hertfordshire, UK)

*The USUS Evaluation Framework for Human-Robot Interaction*

Astrid Weiss, Regina Bernhaupt, Michael Lankes, Manfred Tscheligi (University of Salzburg, Austria; University Paul Sabatier, France)

*Creating Trustworthy Robots: Lessons and Inspirations from Automated Systems*

Munjal Desai, Kristen Stubbs, Aaron Steinfeld, Holly Yanco (University of Massachusetts Lowell, USA; Carnegie Mellon University, USA)

**15:30-16:00 Coffee Break**

**16:00-17:00 Panel discussion and Conclusion**

**17:00 End of Symposium**

**Followed by Dinner and Keynote AISB talk which starts at 18:30**

---

**AISB Keynote Talks (as part of the Edinburgh Science Festival) during the HRI@AISB09 Symposium**

**Wednesday 8<sup>th</sup> April, 18:30 "Is there a Future for Robot Companions?" by Kerstin Dautenhahn**

**Thursday 9<sup>th</sup> April, 18:30: "Why Robots must be Relativists" by Alan Bundy**

**See <http://www.aisb.org.uk/convention/aisb09/speakers.php> for the complete list of AISB Convention Keynote talks**

**Details about AISB2009 convention:  
<http://www.aisb.org.uk/convention/aisb09/>**