



## International Symposium on Crossmodal Learning in Humans and Robots

Hamburg, Germany

November 27-29, 2019

**Place:** Lecture hall: Konrad-Zuse-Hörsaal, house B, room 201, Department of Informatics, Universität Hamburg, Vogt-Kölln-Str. 30, 22527 Hamburg, Germany

**Start:** Wednesday, November 27, 15:00 h

**End:** Friday, November 29, 17:00 h

### Schedule

	Wed, 27 Nov	Thu, 28 Nov	Fri, 29 Nov
<b>Morning</b> 9:00-12:30	---	Opening Talk Invited Talks Lab Visits Informatikum	Session B
<i>Lunch</i>	---	<b>Lunch 13:00-14:00</b>	<b>Lunch 12:30-14:00</b>
<b>Afternoon</b> 14:00-18:00	Welcome Invited Talks Poster Session	Invited Talk Poster Session Session A	Session C Panel Discussions and Conclusions

### Wednesday, November 27, 2019

15:00-15:25 *Arrival, Coffee and Cookies*

15:25-15:30 **Welcome**  
Jianwei Zhang, Universität Hamburg

15:30-16:30 **AI-enabled Robotics**  
Frank Kirchner, DFKI Robotics

16:30-17:30 **Dealing with Motion in the Dynamic World — from Insects' Vision to Neuromorphic Sensors**  
Shigang Yue, University of Lincoln

17:30-18:00 **Poster Session**



**Thursday, November 28, 2019**

09:00-09:15 **Transregional Collaboration Research on Crossmodal Learning in Artificial and Natural Cognitive Systems**  
Jianwei Zhang, Universität Hamburg

09:15-09:30 **Overview on Coexisting-Cooperative-Cognitive Robots**  
Han Ding, Huazhong University of Science and Technology

09:30-10:15 **Visual Multi-spectral Semantic Analysis and Prediction**  
Jorge Dias, University of Coimbra

10:15-10:45 *Coffee Break*

10:45-11:30 **Multi-Fingered Robotic Hands — Toward Beyond Human**  
Makoto Kaneko, University of Osaka

11:30-11:55 **Visual-Haptic Interaction for Human-Robot Teleoperation**  
Frank Steinicke, Universität Hamburg

12:00-13:00 **Lab Visits Informatikum**

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

14:00-15:00 **Digital Twin Knowledge Bases — Knowledge Representation and Reasoning for Robotic Agents**  
Michael Beetz, University of Bremen

15:00-15:55 *Coffee Break / Poster Session*

*Session A*

15:55-16:20 **The Ventriloquist Illusion as a Tool to Study Crossmodal Learning**  
Patrick Bruns, Lux Li, Alexander Kramer, UKE

16:20-16:45 **Role of Neural Oscillations for Temporal Predictions**  
Jonathan Daume, Andreas Engel, UKE

16:45-17:10 **Graph Neural Network Enhanced Knowledge Representation for Crossmodal Learning**  
Ganqu Cui, Shengding Hu, Tsinghua University

17:10-17:35 **How to know where to look? — Prioritizing in computer vision**  
Simone Frintrop

17:35-18:00 **Social Influence in Human Decision-Making**  
Jan Gläscher, UKE



**Friday, November 29, 2019**

*Session B*

- 09:00-09:25 **Crossmodal Emotion Recognition in Neural and Artificial Networks**  
Christoph Korn, UKE
- 09:25-09:50 **Language Independent, Cross-Modal Ambiguity Resolution**  
Wolfgang Menzel, Universität Hamburg
- 09:50-10:15 **Neural-State Machine for Character-Scene Interaction**  
Sebastian Starke, University of Edinburgh
- 10:15-10:40 **Relations between linear and nonlinear coupling measures for Gaussian distributed data**  
Guido Nolte, UKE
- 10:40-11:10 *Coffee Break*

*Session C*

- 11:10-11:35 **Crossmodal Learning for Dexterous Grasping**  
Zhen Deng, Universität Hamburg
- 11:35-12:00 **Neurocorrelates of (Implicit and Explicit) Crossmodal Learning**  
Philipp Taesler, Julia Jablonowski, UKE
- 12:00-12:25 **Neurorobotic models for crossmodal spatial attention and social interaction**  
Haiyan Wu, Pablo Barros (IIT Genua), Zhenghan Li, Tobias Hinz\*, Guochun Yang, Di Fu, Xun Liu, Stefan Wermter\*, UHH\* and CAS
- 12:25-14:00 *Lunch Break in Cafeteria*
- 14:00-14:25 **Natural Language Visual Grounding via Multimodal Learning**  
Jinpeng Mi, Universität Hamburg
- 14:25-14:55 **Dynamic Balancing Force Model on Precision Polishing**  
Jun Li, Chinese Academy of Sciences
- 14:55-15:25 *Coffee Break (with Brownies!)*
- 15:25-15:55 **Torque and Visual Controlled Robot Dexterous Manipulations**  
Zhaopeng Chen, DLR/Agile Robots
- 15:55-16:25 **Human-like Manipulation Skill for Robots — Learning and Control Design**  
Chenguang Yang, University of the West of England
- 16:25-17:00 **Panel Discussions and Conclusions**