First EmpkinS IRTG Winter School
7th – 11th of November 2022

Hotel „Der Rindererhof", Hintertux 789, 6293 Tux, Austria
www.rindererhof.at

Organized by a team of young researchers, the EmpkinS IRTG Winter School (EIWS) provides a key opportunity for professional exchange, cooperation, and the development of new ideas between researchers.

At the beginning of the week, the young researchers will present the current status of their respective sub-projects and receive feedback from others. This serves as one of the regular status updates, which are a crucial part of the IRTG curriculum.

Another important goal of the EIWS is the development of ideas to advance the IRTG and CRC. The event provides space for brainstorming, promotes cooperation between the different areas, and aims to foster interdisciplinary exchange. The young researchers can work on joint manuscript projects, student theses, and more.

The EIWS marks a very important event in the curriculum of the IRTG, as it offers a crucial opportunity to get together, learn from each other, and develop new impulses and outlooks. The participation of the young researchers is extremely important and will contribute to improving the event.

Lastly, the EIWS offers many opportunities for informal exchange and team building. The EIWS planning team has prepared several social events for the young researchers. On the last evening, we will celebrate our errors and talk about failed projects or problems in research during a "Failure Night". After all, science is not just made from success stories!

Talks

Prof. Dr. Albrecht Schmidt
Human-Centered Ubiquitous Media Group, Institute of Informatics, Ludwig-Maximilians-Universität München
Areas of research: Human-computer interaction, ubiquitous computer systems, media technology

Title: If you Cannot See it, is it Really There?
Microscopes, Telescopes, EmpkinS – How Sensing and AI is Shaping the Reality of the Future

Prof. Dr. Christian Waldschmidt
Institute of Microwave Engineering, University of Ulm
Areas of research: High-frequency technology, radar, high-frequency signal processing

Title: Radar based human gesture recognition in traffic scenarios
The presentation will briefly motivate the topic of gesture recognition of road users in traffic. Afterwards, we will show different approaches how data from networks of radar sensors can be used to classify traffic gestures like waving, thank you or stop with the help of neural networks. In the second part of the talk we will discuss the availability of data sets and show approaches how to simulate or synthetically generate radar data.

Mon, Nov 7 *Julia & Lydia*	Tue, Nov 8 *Eva, Klara & Markus*	Wed, Nov 9 *Birte, Johanna, Tabea & Vanessa*	Thu, Nov 10 *Iris, Julian & Marius*	Fri, Nov 11 *Feli & Luca*
<td colspan="5" align="center">7.30 a.m. Breakfast (until 10.30 a.m.)</td>				
Departure at Großparkplatz Erlangen 4.45 a.m. (Be on time!)	Group work and project planning	Group work and project planning	Group work and project planning	Group work and project planning
<td colspan="5" align="center">1 p.m. – 2 p.m. Lunch break (Self-organized)</td>				
Official introduction and welcome *Prof. Dr. Bjoern Eskofier* *Prof. Dr. Martin Vossiek* **Final preparation of status updates**	**What's going on? Pitches on the current status of the sub-projects** *Host: Eva, Klara & Markus*	**World Café Part 1** *Host: Tabea*	**Ideas & open discussions: „The future of EmpkinS"**	**Departure** 2 p.m. **Arrival at Großparkplatz Erlangen** Approx. 9 p.m.
	<td colspan="3" align="center">4 – 4.30 p.m. Coffee break</td>		
Discussion with PIs 5.45 – 6.45 p.m. *Host: Lisa*	**What's going on? Continuation of sub-project status updates** *Host: Eva, Klara & Markus*	**World Café Part 2** *Host: Tabea*	**Keynote** *Prof. Dr. Christian Waldschmidt* *Host: Johanna*	
<td colspan="5" align="center">6.45 p.m. Dinner (until 8.30 p.m.) 8 p.m. Start evening program</td>				
Keynote *Prof. Dr. Albrecht Schmidt* *Host: Robert*	**What's going on? Continuation of sub-project status updates**	**Failure night: Three speakers report about a project/idea gone wrong**	**Research data management** OR „The future of EmpkinS"	