DFG Priority Programme 1914 – Cyber-Physical Networking
2nd Plenary Meeting

Location (NEU): Einsteinufer 37, 10587 Berlin, Hörsaal

Monday, April 23rd, 2018

12:00 - 12:45	**Arrival & Lunch**
12:45 - 13:00	**Welcome address & goals of the meeting** *Sandra Hirche (TU Munich), Klaus Wehrle (RWTH Aachen University)*
13:00 - 15:00	**Key results and open issues I**
13:00 - 13:20	NICCI: Network-Informed Control – Control-Informed Network *Rolf Findeisen (Otto von Guericke University Magdeburg), Holger Karl (University of Paderborn), Daniel Quevedo (University of Paderborn)*
13:20 - 13:35	CoCPN: Cooperative Cyber-Physical Networking *Uwe D. Hanebeck (Karlsruhe Institute of Technology), Martina Zitterbart (Karlsruhe Institute of Technology)*
13:35 - 13:50	Model-Predictive Cyber-Physical Networking *Olaf Stursberg (University of Kassel), Gerhard Wunder (FU Berlin)*
13:50 - 14:05	Optimal Co-Design of Wireless Resource Management and Multi-Loop Networked Control *Sandra Hirche (TU Munich), Wolfgang Kellerer (TU Munich)*
14:05 - 14:20	Integrated Controller Design Methods and Communication Services for Networked Control Systems *Frank Allgöwer (University of Stuttgart), Kurt Rothermel (University of Stuttgart)*
14:20 - 14:35	Event-based Wireless Control for Cyber-Physical Systems *Sebastian Trimpe (Max Planck Institute for Intelligent Systems, Tübingen), Marco Zimmerling (TU Dresden)*
14:35 - 15:05	Discussion: What are common aspects, open questions, and research ideas for the 2nd phase?
15:05 -15:50	**Break**
15:30 - 17:30	**Key results and open issues II**
15:50 - 16:05	Cooperative Consensus-Based Control of Multi-Agent Systems over Wireless Channels *Jörg Raisch (TU Berlin), Slawomir Stanczak (TU Berlin)*

16:05 - 16:20	Analysis and Synthesis of Combined Cooperative Control and Topology Control over Wireless Network Models *Hannes Frey (University of Koblenz-Landau), Herbert Werner (TU Hamburg-Harburg)*
16:20 - 16:35	REFLEXES: A Co-Designed Architecture for In-Network Control *Sandra Hirche (TU Munich), Klaus Wehrle (RWTH Aachen University)*
16:35 - 16:50	Latency and Resilience-Aware Networking *Thorsten Herfet (Saarland University), Wolfgang Schröder-Preikschat (FAU Erlangen-Nürnberg)*
16:50 - 17:00	Measurements for Composable Performance Models of Cyber-Physical Network Components *Georg Carle (TU Munich)*
17:00 - 17:30	Discussion: What are common aspects, open questions, and research ideas for the 2nd phase?
17:30 - 19:00	**Visit to HHI (Einsteinufer tour)**
19:00	**Dinner**

Tuesday, April 24th, 2018

8:30 - 9:30	**Benchmarking for Cyber-Physical Networking**
8:30 - 8:45	Report from Arosa bar camp group I
8:45 - 9:00	Report from Arosa bar camp group II
8:45 - 9:00	Report from Arosa bar camp group III
9:00 - 9:30	Discussion of key characteristics, open issues, and future development of benchmark scenarios
9:30 - 10:00	**SPP1914 1rst phase: Activity review and plans** *Sandra Hirche (TU Munich), Klaus Wehrle (RWTH Aachen University)*
10:00 - 10:45	**Break**
10:45 - 12:45	**Discussion on future research and 2nd SPP1914 phase. Results, agreements and closing remarks** *Sandra Hirche (TU Munich), Klaus Wehrle (RWTH Aachen University)*
12:45	**Lunch**