



Agenda



27 September 2023

**Foundations of AI
(Room Domblick)**

Moderator: Prof. Chistopher Morris

**Real-world impact of AI
(Room Rathausblick)**

Moderator: Prof. Sebastian Trimpe

10:00	Introduction Prof. Sebastian Trimpe, RWTH Aachen University	
10:15	Foundations of trustworthy AI for the real world Prof. Mykola Pechenizkiy, TU Eindhoven	AI-powered customer journey transformation Prof. Marwan Hassani, TU Eindhoven
10:45	Coffee break	
11:00	Dependable AI: From verification to synthesis Prof. Joost-Pieter Katoen, RWTH Aachen University	Process mining: From a research project to a new software category Prof. Wil van der Aalst, RWTH Aachen University
11:20	Automatic speech recognition: Machine learning now and then Priv.-Doz. Dr. Ralf Schlüter, RWTH Aachen University	Exploring energy systems and energy security with explainable AI Prof. Dirk Witthaut, Forschungszentrum Jülich
11:40	3D shape representation, generation, and editing Prof. Leif Kobbelt, RWTH Aachen University	First AI applications for building supply systems Prof. Dirk Müller, RWTH Aachen University
12:00	Lunch	
13:00	Recent progress in image, video and 3D scene understanding Prof. Bastian Leibe, RWTH Aachen University	The role of AI in engineering responses to climate change Prof. Julia Kowalski, RWTH Aachen University
13:20	Neuro-inspired AI Prof. Abigail Morrison, Forschungszentrum Jülich	Contemporary machine learning transforms physics research & teaching Prof. Martin Erdmann, RWTH Aachen University
13:50	Wrap up Prof. Sebastian Trimpe, RWTH Aachen University	





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Foundations of AI (Room Domblick)

Moderator: Prof. Bastian Leibe

Real-world impact of AI (Room Rathausblick)

Moderator: Dr. Friedrich Solowjow

10:00	Introduction Prof. Sebastian Trimpe, RWTH Aachen University	
10:15	Learning from user and environment in combinatorial optimisation Prof. Tias Guns, KU Leuven	Empowering users: Bridging the gap between explainable AI and real-world impact Prof. Katrien Verbert, KU Leuven
10:45	Coffee break	
11:00	Safe learning Prof. Sebastian Trimpe, RWTH Aachen University	AI-augmented digital pathology: potentials and challenges Prof. Peter Boor, RWTH Aachen University
11:20	Machine learning and signal processing on graphs and complexes Prof. Michael Schaub, RWTH Aachen University	Streaming on the edge: A distributed multi-Layer architecture for data stream processing on the edge Prof. Sandra Geisler, RWTH Aachen University
11:40	New technologies and brain-inspired designs for more efficient AI hardware Prof. John Paul Strachan, Forschungszentrum Jülich	Healing with words: the power of language models in medicine Priv.-Doz. Dr. Daniel Truhn, Uniklinik Aachen
12:00	Lunch	
13:00	Optimization algorithm synthesis for control and AI systems Prof. Christian Ebenbauer, RWTH Aachen University	Machine learning-enhanced biomedical flows for bringing personalized medicine to rhinology Mario Rüttgers, Prof. Wolfgang Schröder, RWTH Aachen University
13:20	Biological inspiration for energy-efficient AI Prof. Tobias Gemmeke, RWTH Aachen University	Mind the Game! Why AI and (computer) games go along so well Prof. Gabriele Gramelsberger
13:50	Wrap up Prof. Sebastian Trimpe, RWTH Aachen University	

