

Speakers

Marianna Bergamaschi Ganapini · Epistemology and Ethics of Technology, Union College, USA

Kim J. Boström · Theoretical Physics, Movement Science, and Philosophy of Science, University of Münster, Germany

Samantha Copeland · Epistemology and Ethics of Technology, Philosophy of Serendipity, University of Delft, Netherlands

Mitchell Green · Philosophy of Language and Mind, Aesthetics, and Pragmatics, University of Connecticut, USA

Jan G. Michel · Philosophy of Mind, Language, and Discovery, Environmental Philosophy, University of Düsseldorf, Germany

Joseph G. Moore · Philosophy of Mind, Metaphysics, Environmental Philosophy and Philosophy of Music, Amherst College, USA

Ram Neta · Epistemology, University of North Carolina at Chapel Hill, USA

Michael T. Stuart · Philosophy of Science, Imagination, and AI, University of York, England

Michael Ohl · Biological Systematics, Taxonomy, and Discoveries, Museum für Naturkunde Berlin & Humboldt University Berlin, Germany

Emily Sullivan · Philosophy of Science, AI, and Technology, Eindhoven University & AI Systems Institute, Netherlands

Christiane Woopen · Life Ethics, University of Bonn & Center for Life Ethics, Bonn, Germany

Venue, Registration, Homepage

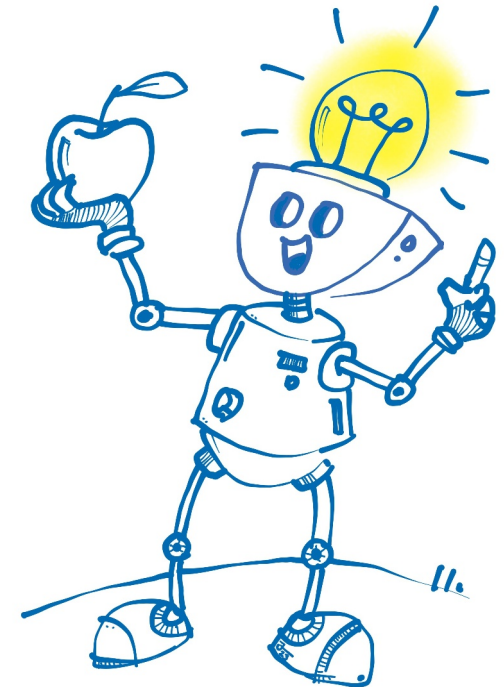
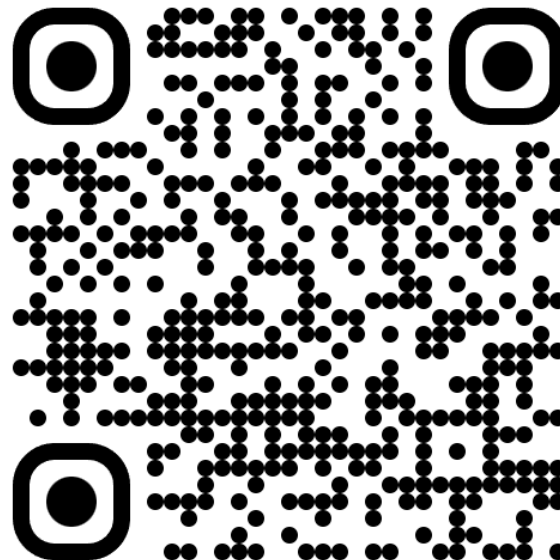
The conference will be held on the Düsseldorf university campus in **building 23.21** in **rooms U1.95** and **U1.97**.

There are various Cafés on campus. For the lunch breaks you can use the Mensa. Please note that you can only pay with MensaCard or cash in the Mensa.

Attendance at the conference is free, but space is limited, and registration is required.

If you plan to attend the conference, please register via email to Sonja Ameglio (sonja.ameglio@hhu.de), including your full name, email address, and affiliation. In case the event is over-subscribed, priority will be given to those that have registered.

The QR code to the conference homepage:



Artificial Researchers and Scientific Discoveries

International Conference
September 11–13, 2023

Aims and Scope

Humanity faces grand challenges, and the hope is that scientific progress will provide us with inventions, innovations, and breakthroughs that help us meet those challenges. Scientific progress, in turn, depends crucially on scientific discoveries. Now, in light of the rapid advances we are seeing in the field of Artificial Intelligence (AI) all around us, the question arises as to how AI can contribute to new scientific discoveries, or even make them on its own. Could there even be AI researchers – and what should that mean?

This is the overarching question of the *Artificial Researchers and Scientific Discoveries* conference, which gathers experts from a variety of backgrounds to explore questions such as the following: What role might AI play in scientific discovery? Could AI find something on its own and communicate the results of its research? What about its creative capabilities? Could AI meet the criteria for authorship, and how could AI contribute to science communication? Could it make suggestions for science policy?

In short, this conference is about identifying and also evaluating different requirements, possibilities, and limitations for AI researchers and AI in scientific discovery.

Organization and Design

Jan G. Michel · University of Düsseldorf

Monday, September 11

- 2:00 p.m. **Welcome and Introduction**
Jan G. Michel & Team
- 2:15 p.m. **Can Machines Make Scientific Discoveries?**
Jan G. Michel
- 3:30 p.m. **Trustworthy and Decision-Making AI – Really?**
Christiane Woopen
- 4:30 p.m. *Coffee break*
- 5:00 p.m. **AI Increases Our Understanding but Doesn't Understand**
Michael T. Stuart (*online*)
- 8:00 p.m. *Get-together in the Old Town*

Tuesday, September 12

- 9:30 a.m. **ML in Science: Just a Toy?**
Emily Sullivan (*online*)
- 10:45 a.m. **Generative AI, Artistic Creativity, and Discovery**
Joseph G. Moore
- 12:00 noon *Lunch break*
- 1:30 p.m. **Patterns and Potential Value – Chance and AI-driven Discovery**
Samantha Copeland

- 3:15 p.m. **How Many Species Are There?**
Michael Ohl
- 4:15 p.m. *Coffee break and walk to the Botanical Garden*
- 5:15 p.m. **AI and Scientific Discovery**
Marianna Bergamaschi Ganapini (*online*)
- 8:00 p.m. *Conference Dinner*

Wednesday, September 13

- 9:30 a.m. **Genuine Meaning in Artificial Speakers**
Mitchell Green
- 10:45 a.m. **Deliberation, Understanding, and the Possibility of Wondering What You Are**
Ram Neta
- 12:00 noon *Lunch break*
- 1:30 p.m. **Dr. Robot – Can Artificial Intelligence Do Real Science?**
Kim J. Boström
- 2:45 p.m. **Concluding Remarks and Discussion**
Jan G. Michel & Team