INTERDISCIPLINARY SYMPOSIUM

Berlin-Brandenburgische
AKADEMIE DER WISSENSCHAFTEN

# The Future of Science in the Age of Artificial Intelligence

An Interdisciplinary Symposium at the Berlin-Brandenburg Academy of Sciences and Humanities

Leibniz Hall, Entrance Markgrafenstr. 38, 10117 Berlin

Registration form:
https://www.bbaw.de/veranstaltungen/veranstaltung-symposium-science-ai

Thursday–Friday
19–20 November 2026

Artificial intelligence is beginning to transform scientific research across a broad range of disciplines. AI systems can analyse large bodies of scientific literature, identify patterns in complex datasets, generate hypotheses, support the design of experiments, and increasingly assist researchers throughout entire scientific workflows. Recent advances in agentic AI are extending these capabilities to systems that can plan, coordinate, and execute complex research tasks with increasing autonomy.

These developments raise fundamental questions about the future of scientific discovery and the nature of scientific knowledge. How will AI change the ways in which knowledge is generated, validated, interpreted, and communicated? What roles will remain for human creativity, judgement, and responsibility? How can the quality, reproducibility, and integrity of AI-assisted research be ensured? And how should universities, research organisations, funding bodies, and academic publishing respond to these transformations?

The development and application of AI also require collaboration across disciplinary boundaries. The natural sciences, medicine, mathematics, computer science, the humanities, law, and the social sciences are all affected, yet they approach AI from different methodological and epistemological perspectives. At the same time, existing research and funding structures often remain largely organised along disciplinary lines. Understanding how AI may reshape not only scientific practice but also the organisation of science therefore represents a major intellectual and institutional challenge.

The symposium will bring together leading researchers, university leaders, policymakers, and representatives of research and funding organisations. Its purpose is to assess the current transformation of scientific practice, explore possible futures of research in the age of AI, and discuss how scientific institutions should respond.

With its breadth of disciplinary expertise and its long-standing commitment to reflecting on the foundations, responsibilities, and future of scientific knowledge, the Berlin-Brandenburg Academy of Sciences and Humanities provides an ideal forum for this discussion.

**Organising Committee: Gitta Kutyniok (Chair), Holger Boche, Matthias Drieß, Thomas Elsässer, Bernhard Jussen, and Michaela Kreyenfeld (all members of BBAW)**

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Berlin-Brandenburgische Akademie der Wissenschaften, Akademiegebäude am Gendarmenmarkt, Jägerstraße 22/23, 10117 Berlin
How to get there: Take the S-Bahn to Friedrichstraße / the U2 to Hausvogteiplatz or Stadtmitte / the U6 to Stadtmitte. If you are travelling by car, we recommend using the nearby car parks.

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## Programme

## Thursday, 19 November 2026

9.30 Welcome Address
Christoph Markschies
President, BBAW

9.35 Scientific Introduction
Gitta Kutyniok
Vice President, BBAW; LMU Munich

### Part I: AI Across the Disciplines: Current Developments and Emerging Practices

Session Chair: Thomas Elsässer

9.45 Machine Learning Meets Digital Pathology: Towards Understanding
Klaus-Robert Müller
Member of BBAW, TU Berlin

10.25 Trustworthy AI in Medicine: Prerequisites and Applications
Tobias Schäffter
Member of BBAW, Physikalisch-Technische Bundesanstalt, TU Berlin

11.05 Coffee Break

Session Chair: Michaela Kreyenfeld

11.40 From the (Big) Data Revolution to Generative AI: What's Next for the Social Sciences?
Emilio Zagheni
Max Planck Institute for Demographic Research

12.20 Lexicography in the Age of AI: Emerging Practices in a Data-Intensive and Theory-Driven Field of Research
Alexander Geyken
BBAW, Zentrum Sprache

13.00 Lunch Break

### Part II: The Future of Scientific Discovery

Session Chair: Holger Boche

14.30 The Future of Agentic AI in Research
Sebastian Pokutta
TU Berlin / Zuse Institute Berlin

15.10 AI-Native Radio Access Networks
Alexander Keller
NVIDIA

15.50 Asia-AI as Alternative Intelligence: East Asian Data Politics and Practices in the Sciences and Humanities
Dagmar Schäfer
Member of BBAW, Max Planck Institute for the History of Science

16.30 Coffee Break

Session Chair: Matthias Drieß

17.00 When the Algorithms Take Over: AI for Autonomous Catalysis Research
Karsten Reuter
Fritz Haber Institute of the Max Planck Society, Berlin

17.40 AI for Molecular Discovery
Frank Noé
Member of BBAW, FU Berlin

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Programme

Friday, 20 November 2026

## Part III: Transforming the Scientific System

9.00 Welcome and Introduction
Gitta Kutyniok
Vice President, BBAW; LMU Munich

Session Chair: Michaela Kreyenfeld

9.15 Solving Problems, Generating Knowledge, and What to do with it: Research, Teaching, and Communication in the Age of AI
Günter Ziegler
Member of BBAW, FU Berlin

9.45 Artificial Intelligence as a Fundamental Challenge for Science and Academic Education
Armin Nassehi
LMU Munich

10.15 Science in Times of Generative AI: Quo Vadis, Higher Education?
Niels Pinkwart
HU Berlin

10.45 Coffee Break

Session Chair: Gitta Kutyniok

11.15 The Next Research Community: Humans, AI, and the Future of Discovery
Christof Schütte
FU Berlin / Zuse Institute Berlin

11.45 Research Integrity and Shared Responsibility in a Transforming Research Ecosystem
Martin Steinberger
DFG

12.15 From Open Access to Open Intelligence. The Value of Science in the Age of AI and the Anthropocene
Jürgen Renn
Max Planck Institute of Geoanthropology

12.45 Concluding Remarks
Gitta Kutyniok
Vice President, BBAW; LMU Munich