



How do we articulate the role of the mathematical sciences in AI?

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On behalf of the Working Group of the Academy for the Mathematical Sciences

- ▶ Kick-off Event: Principled and Effective AI Adoption in Mathematics Higher Education and Research (27-28 April 2026)
- ▶ Hackathon
- ▶ ...



Academy for the
Mathematical Sciences

Mathematical sciences in the age of artificial intelligence

A primer on key mathematical
topics that underpin AI

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- ▶ Mathematics explains AI.
- ▶ Mathematics sets the limit of AI.
- ▶ Trustworthy AI is fundamentally a mathematical challenge.
- ▶ AI is creating new opportunities for mathematical sciences research.
- ▶ Fundamental research matters

▶ Big picture

- ▶ Is the mathematical sciences community currently articulating its role in AI strongly enough?
- ▶ Are we describing ourselves as contributors to AI, or as foundational to it?
- ▶ What do we most want university leaders, funders, and policymakers to understand about mathematics and AI?

▶ Strategy

- ▶ How should departments adapt curricula so graduates can use AI critically, not just consume it?
- ▶ What balance should we strike between traditional mathematical formation and new AI-facing content?
- ▶ Do we need new hiring, new centres, or new interdepartmental structures?

▶ Identity

- ▶ Does AI strengthen the case for unity across pure, applied, and statistical mathematics?
- ▶ How do we stop the public story of AI becoming one in which mathematics disappears behind engineering?