KWG | Koninklijk Wiskundig Genootschap

AI in de wiskunde

23 oktober 2026

Marinus Ruppertgebouw, Room 0.40
Utrecht Science Park

Programma

10:00	•	**Opening**
10:15	•	**Jim Portegies** The Leiden Declaration on Artificial Intelligence and Mathematics
10:45	•	**Jonny Evans** The Next Generation
11:15	•	**Coffee break**
11:45	•	**Özge Şahin** What changes when a mathematician works with an AI agent?
12:15	•	**Lunch**
13:30	•	**Miranda Cheng** Math, AI, and Us
14:00	•	**Jeroen Zuiddam** AI for (or against) the Working Mathematician
14:30	•	**Coffee break**
15:00	•	**Panel**
16:30	•	**Group discussions and KWG assembly**
17:00	•	**Borrel**

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Abstracts

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Jim Portegies — 10:15

The Leiden Declaration on Artificial Intelligence and Mathematics

Recent advances in AI technologies threaten important values held in our community. Rooted in a joint conviction that as mathematicians, we have a responsibility to ensure the continued flourishing of our discipline, following a conference on Mechanization and Mathematical Research at the Lorentz Center at Leiden University, 16 authors began drafting recommendations on the future relations between the mathematical community and the new technology. I will explain how the resulting Leiden Declaration on Artificial Intelligence and Mathematics developed and share our perspective on the steps ahead for the community.

Jonny Evans — 10:45

The Next Generation

I want to discuss ways in which mathematicians can build a system which empowers young mathematicians to drive the subject in the ways they think are most exciting and promising.

Özge Şahin — 11:45

What changes when a mathematician works with an AI agent?

Discussions about AI in mathematics often focus on proving theorems. But doing mathematics also involves formulating questions, understanding why an approach fails, teaching, and more. In this talk, I will share how Codex is changing my research and teaching in statistics. I will discuss where it helps, where it can go wrong, and how I check and use its outputs. I will also demonstrate a teaching tool that I built through vibe coding, which helps students practice the course material. Working with these rapidly changing tools has been a learning process for me over the past two years. Before advising students on whether and how to use them, I believe we should develop our own understanding through experimentation and critical evaluation. Finally, I will share experiences from our AI activities at the Delft Institute of Applied Mathematics and reflect on how departments can support this experimentation while addressing our dependence on commercial providers.

Miranda Cheng — 13:30

Math, AI, and Us

AI systems are now capable enough to change how mathematics research is done, and the opportunities and risks this brings about are without precedent in our discipline. At this watershed moment, I'd like to offer some personal thoughts on the issues of governance and education, with the hope of instigating further thoughts and discussions on these important topics.

Jeroen Zuiddam — 14:00

AI for (or against) the Working Mathematician

Developments in agentic AI and automatic formalisation have opened the door to rapid mathematical verification and exploration. How does this impact our work? Through examples in my own area (combinatorics, algebraic complexity theory, quantum information), I will discuss capabilities of current AI/formalisation tools in the context of mathematical research, and the challenges and opportunities this presents.