IQCB Keynote Lecture
January 29, 2025
10:30 AM

Linke Aula (Alte Mensa), Johann-Joachim-Becher-Weg 3-5, 55128 Mainz

Prof. Dr. Stefan Müller-Stach

Vice President for Research and Early Career
Academics, JGU Mainz

How topology provides tools for data analysis and proof checking

In this overview talk I will explain some new tools in mathematics that involve topological concepts: topological data analysis and dependent type theory. Both are at the same time useful for developing new math but also provide powerful tools in data science. Both can be combined with AI but are also very powerful as standalones. The techniques involved have also massive implications on the work of computational scientists.

IQCB EVENTS

*This public keynote lecture will be part of the **IQCB General Assembly & Networking Event**. Please find the full programme of this event on the next page.*

For further information please contact
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IQCB General Assembly & Networking Event
29.01.2025 – Linke Aula (Alte Mensa)
Johann-Joachim-Becher-Weg 3-5, 55128 Mainz

09:30	**Start Registration**	*IQCB members only*
10:00	**Welcome & Report**	*IQCB members only*
	Humboldt Prof. Dr. Peter Baumann, IQCB Founding Director	
10:30	**Public Keynote Lecture**	
	Prof. Dr. Stefan Müller-Stach	
	Vice President for Research and Early Career Academics, JGU Mainz	
	How topology provides tools for data analysis and proof checking	
	Chair: Prof. Dr. Matthias Birkner, Institute of Mathematics, JGU Mainz	
11:30	**Flash talks by IQCB members – Session #1**	*IQCB members only*
12:15	**Poster exhibition & Networking lunch**	*IQCB members only*
13:15	**Flash talks by IQCB members – Session #2**	*IQCB members only*
13:30	**Planned projects, funding applications, Q&A**	*IQCB members only*
13:45	**Closing remarks and discussion**	*IQCB members only*
ca. 14:00	**End**	