

Rainbow problems in graphs and matroids

Prof. Dr. **Lisa Sauermann** (University of Bonn)

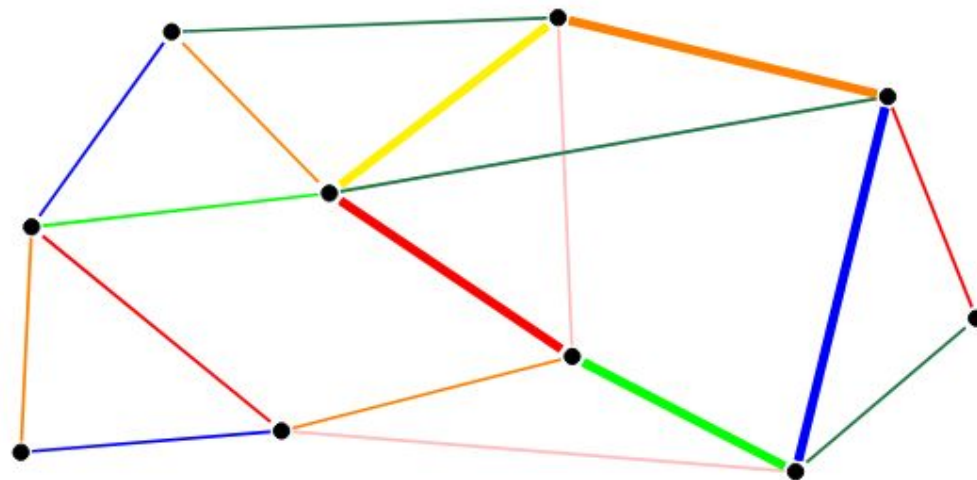
Thursday, April 30, 14:00, Bldg. 20.30, Room 0.014



Lisa Sauermann obtained her PhD in 2019 at Stanford University. Before coming to Bonn, she was an assistant professor at Stanford, Princeton, and MIT.

She won four gold medals (2008–2011) and one silver medal (2007) at the IMO.

For her outstanding work, she received the European Prize in Combinatorics (2021), Sloan fellowship (2022), and von Kaven Award (2023).



Abstract: In combinatorics, there has been a lot of recent research on rainbow structures, but yet many fundamental problems remain open. For example, a very basic fact in graph theory states that every graph with average degree at least 2 contains a cycle. The rainbow analogue of this asks the following: What average degree is needed in a properly edge-coloured graph on n vertices in order to guarantee the existence of a rainbow cycle, i.e. a cycle where all edges have distinct colours? We will discuss this and some other rainbow problems about graphs and matroids.

For any questions, please contact:

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