Insitute für Diskrete Mathematik

Combinatorics Seminar: Friday 7th July 15:00

7.7.2023, 15:00

Online meeting (Webex)

Almost every matroid has a rank-3 wheel or rank-3 whirl as minor

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Many conjectures – but few results – exist for the statistical properties of large quot;randomquot; matroids. For example, the question of which matroids appear as a minor of almost every matroid has been settled for only a few matroids. I will present recent progress in this direction: almost every matroid has at least one of two particular matroids, the rank-3 wheel $M(K_4)$ or the rank-3 whirl W^3, as a minor.

At the heart of the argument lies a counting version of the Ruzsa–Szemerédi (6,3)-theorem on 3-uniform hypergraphs, which is then generalised in several ways to obtain the main result.

For this talk, no knowledge about matroids is assumed.

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Meeting link:

 https://tugraz.webex.com/tugraz/j.php?MTID=m49b4af86f873e7d36187a851c7fd52e4

Meeting number: 2734 674 7217

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Mihyun Kang