

Wintersemester 2025/26

Dresdner Mathematisches Seminar

Prof. Dr. Daniel Král'

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(MPI-MIS), Leipzig

Analytic approach to extremal combinatorics

Analytic tools to represent and study large discrete structures provided by the theory of combinatorial limits led to new views on a wide range of topics in mathematics and computer science. In this talk, we will briefly introduce the theory of combinatorial limits and showcase its methods on specific problems from Ramsey theory, which studies the existence of well-behaved substructures. In particular, we will study quantitative versions of Ramsey type statements and present a solution of a 30-year-old problem on the existence of high chromatic graphs with small Ramsey multiplicity. In relation to general questions on the interplay of combinatorial limits and extremal combinatorics, we will present, among others, a counterexample to a conjecture of Lovász on finitely forcible optima of extremal problems.

Mittwoch, 17.12.2025, 17:00 Uhr – Willers-Bau, Raum A 124

Leitung: Prof. Dr. Andreas Thom

Vor dem Vortrag findet **ab 16:30 Uhr** ein gemeinsames **Kaffee-/ Teetrinken** **vor dem Vortragsraum WIL A 124** statt.

Stand: 11.12.2025