Combinatorics Seminar

Counting Substructures

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Abstract: For various (hyper)graphs F, we give sharp lower bounds on the number of copies of F in a (hyper)graph with a prescribed number of vertices and edges. Our results extend those of Rademacher, Erdos and Lovasz-Simonovits for graphs and of Bollobas, Frankl, Furedi, Keevash, Pikhurko, Simonovits and Sudakov for hypergraphs. The proofs use the hypergraph removal lemma and stability results for the corresponding Turan problem proved by the above authors.

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