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Abstracts of Short Communications and Posters

Section:

13. Combinatorics

1991 MS Classification: 05C
Thomason, Andrew, University of Cambridge
Hereditary hypergraph properties
A hypergraph property $\mathcal{P}$ is *hereditary* if it is preserved under the taking of *induced* subgraphs. An inequality concerning projections of Euclidean bodies implies a monotonicity condition for the probability that a randomly generated hypergraph has $\mathcal{P}$; the size of $\mathcal{P}$ is similarly monotonic. The probability can be approximated by that of regular properties, so determining the $\mathcal{P}$-chromatic number of almost all graphs. The material is joint with Béla Bollobás and is related to the subject of his invited lecture.
Reference: B. Bollobás and A. Thomason, Projections of bodies and hereditary properties of hypergraphs, *J. London Math. Soc.* **27** (1995) 417–424.