

Random perturbations of discrete structures—a brief survey

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We review recent results regarding the properties of (hyper)graphs that are randomly perturbed with binomial noise. In particular, we shall discuss the emergence of large complete minors in randomly perturbed graphs, the emergence of large complete topological minors of such graphs, and we plan to at least mention our results pertaining to their diameter, vertex-connectivity, and pancyclicity. If time permits, we shall discuss the Ramsey properties of randomly perturbed hypergraphs.

The talk is based on joint works with Dan Hefetz, Michael Krivelevich, and Mathias Schacht.