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Hypergraph matchings

Matching theory is a large field with many directions of research, both in practical algorithms and combinatorial theory. I will aim to show some of the breadth of the subject, and survey some recent advances in techniques for hypergraphs, such as a geometric theory of matchings in dense hypergraphs (joint work with Richard Mycroft), and the existence of designs (by my method of Randomised Algebraic Constructions and by the Iterative Absorption method as recently applied by Glock, Kuhn, Lo and Osthus).