

# Hypergraph Ramsey problem

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The Ramsey number  $r_k(s, n)$  is the minimum  $N$  such that every red-blue coloring of the  $k$ -tuples of an  $N$ -element set contains either a red set of size  $s$  or a blue set of size  $n$ , where a set is called red (blue) if all  $k$ -tuples from this set are red (blue). Determining or estimating Ramsey numbers is one of the central problems in combinatorics. In this talk we discuss recent progress on several old and very basic hypergraph Ramsey problems.

Joint work with D. Conlon and J. Fox.