# Supersaturation for Disjoint Pairs


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The typical extremal problem asks how large a system can be if it avoids certain forbidden subconfigurations. The supersaturation problem is then a refinement, asking how many such subconfigurations must appear in larger systems. In this talk we will discuss the supersaturation extension of the Erdős–Ko–Rado Theorem, seeking to minimise the number of disjoint pairs in set families of a given size. We will present some recent results, including a potential counterexample to the Bollobás–Leader conjecture.

The new results are joint work with József Balogh, Hong Liu, Maryam Sharifzadeh and Tuan Tran.