

Extremal results in random graphs

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Abstract

We discuss recent developments, which led to the determination of thresholds for extremal and Ramsey-type properties for random discrete structures. In particular, we discuss recent joint work with Rödl and Ruciński, on upper bounds of the Folkman numbers and show that there is a K_{t+1} -free graph on $2^{\text{poly}(t,r)}$ vertices with the property that every r -coloring of its edges yields a monochromatic copy of K_t .