

Ramsey games with giants

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Abstract

One of the most classical results in the theory of random graphs, proved by Erdős and Rényi in 1961, concerns the threshold for the giant component in the random graph process. We consider a new variant of the problem, with a Ramsey flavor. Now, each random edge that arrives in the sequence of rounds must be colored with one of r colors. The goal can be either to create a giant component in every color class, or alternatively to avoid it in every color. One can also consider the off-line or on-line setting for this problem. In this talk, we will discuss several recent results in this area, and mention some open problems. This is joint work with T. Bohman, A. Frieze, M. Krivelevich, and B. Sudakov.