The Erdös-Gyárfás function, a variation of classical Ramsey theory

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Abstract

For fixed integers $p$ and $q$, let $f(n, p, q)$ denote the minimum number of colors needed to color all of the edges of the complete graph on $n$ vertices such that no clique of $p$ vertices contains fewer than $q$ distinct edge colors. In this talk I will give a survey of the known results about this function as well as some interesting open problems in the area.