Anti-Ramsey numbers of graphs

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An edge-colored graph is called a *rainbow* graph if the colors on its edges are distinct. The rainbow generalizations of Ramsey theory are very active during last decades and one of them is the anti-Ramsey numbers. The anti-Ramsey number $AR(K_n, H)$ was introduced by Erdős Simonovits and Sós in 1973, which is defined to be the maximum number of colors in an edge coloring of the complete graph K_n without any rainbow H.

It has been shown that the anti-Ramsey number $AR(K_n, H)$ is closely related to Turán number of the family $\{H - e : e \in E(H)\}$ in K_n . Recently, researchers generalized the host graph K_n to other graphs, including complete bipartite graphs, planar graphs, and so on. In this talk, we will present an overview of the anti-Ramsey number of graphs.