

Anti-Ramsey numbers for cycles in complete split graphs

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A subgraph of an edge-coloured graph is *rainbow* if all of its edges have different colours. For graphs G and H the *anti-Ramsey number* $ar(G, H)$ is the maximum number of colours in an edge-colouring of G with no rainbow copy of H . The notion was introduced by Erdős, Simonovits and V. Sós and studied in case $G = K_n$. Afterwards results concerning bipartite graphs, cubes or product of cycles as G appeared. They were obtained by, among others, Axenovich, Li, Montellano-Ballesteros, Schiermeyer. In the talk the survey of these results will be given. Apart from that general results concerning complete split graphs as host graphs will be presented and in particular cycles will be considered.