

Graph colouring and maximal F -free subgraphs

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Abstract

Given finite graphs F and G and an integer k , an F -avoiding k -colouring of G is a k -colouring of the vertices of G such that no maximal F -free subgraph of G is monochromatic. The F -avoiding chromatic number $ac_F(G)$ is the least integer k such that G is F -avoiding k -colourable. In this talk, we will give a complete answer to the following problem: for which F is $ac_F(G)$ bounded by a constant independent of G ?