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FIXING SETS OF GRAPHS AND GROUPS

Courtney R Gibbons *Colorado College*

Abstract of Talk: A graph automorphism of a graph G is an isomorphism from G to itself, often thought of as a symmetry or an edge-preserving permutation of its vertices. A set of vertices S in G is called a fixing set of G if no automorphisms of G fix each of the vertices in S . The fixing number of G is the minimum size of a fixing set in G . Fixing the vertices in a fixing set can be thought of as removing all symmetry from the graph. The fixing set of a group Γ is the set of all fixing numbers of graphs with Γ as their automorphism groups.

In this talk, we investigate fixing sets of groups. In particular, we prove that 1 is in the fixing set of every group, and we determine fixing sets of some families of groups.