On Stratification and Domination in Graphs

Ralucca Gera* and Ping Zhang
Western Michigan University

Abstract

A graph $G$ is 2-stratified if its vertex set is partitioned into two classes, the red vertices and the blue vertices. Let $F$ be a 2-stratified graph rooted at some blue vertex $v$. The $F$-domination number of a graph $G$ is the minimum number of red vertices of $G$ in a red-blue coloring of the vertices of $G$ such that every blue vertex $v$ of $G$ belongs to a copy of $F$ rooted at $v$. Some results concerning $F$-domination are presented.

Key Words: stratified graphs, $F$-domination.