Unique Group Coloring of Graphs

Lucian Mazza, Oakland University

Group Coloring is a "non-homogeneous" generalization of vertex coloring, where vertices are colored with group elements in such a way that adjacent vertices do not differ by a value assigned to the edge they share. This talk will discuss what it means for a group coloring to be unique, as an extension of the previously well-studied unique vertex coloring problem, and present some properties of graphs that can be uniquely colored under some group assignment.

Keywords: Graph Theory, Vertex Coloring, Unique Coloring, Group Coloring