

1035-05-1232

Maria Axenovich* (axenovic@iastate.edu), 412 Carver Hall, Ames, IA 50011, and **Perry Iverson**. *Edge-colorings avoiding rainbow and monochromatic subgraphs.*

For two graphs G and H , let the mixed Ramsey numbers, $maxR(n; G, H)$, ($minR(n; G, H)$) be the maximum (minimum) number of colors used in an edge-coloring of a complete graph with n vertices having no monochromatic subgraph isomorphic to G **and** no totally multicolored (rainbow) subgraph isomorphic to H . These two numbers generalize the classical anti-Ramsey and Ramsey numbers, respectively. In this talk, I will concentrate on two results:

1. $maxR(n; G, H)$, in most cases, does not depend on the graph G and can be expressed in terms of a vertex-arboricity of H ;
2. $minR(n; K_3, K_3)$ is determined exactly, as well as all extremal colorings. (Received September 19, 2007)