1035-05-858   **Karen L. Collins**, **Mark Hovey** and **Ann N. Trenk*** (`atrenk@wellesley.edu`), Mathematics Department, Wellesley College, Wellesley, MA 02481. *The Distinguishing Chromatic Number.*

Albertson and Collins introduced the distinguishing number of a graph as the minimum number of colors needed to color the vertices so that the only automorphism of the graph which preserves colors is the identity. The *chromatic distinguishing number*, $\chi_D(G)$, is defined similarly, except that the coloring must also be proper, that is, adjacent vertices must get different colors. In this talk we discuss results about $\chi_D(G)$ including characterizations of $\chi_D(G)$ for various families of graphs, analogues of Brooks' Theorem, and results that relate $\chi_D(G)$ to the automorphism group of G. (Received September 17, 2007)