CCSU

DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, May 2
2:00 – 3:00 PM
Maria Sanford, Room 101

THE DISTINGUISHING CHROMATIC NUMBER

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Joint work with **Ann Trenk**, Wellesley College and
Mark Hovey, Wesleyan University

Abstract: Collins and Trenk introduced the distinguishing chromatic number of a graph G, chi_D(G), as the minimum number of colors needed to color the vertices so that (1) the coloring is a proper graph coloring and (2) the only automorphism of the graph which preserves colors is the identity. Thus chi_D(G) is closely related to both the chromatic number and the distinguishing number of a graph. A naive approach to finding an upper bound for the distinguishing chromatic number of a graph would be to expect that it would be less than the sum of the distinguishing number plus the chromatic number. This talk will provide an introduction to the distinguishing number, the distinguishing chromatic number and describe a tight bound on the distinguishing chromatic number of graphs with abelian automorphism group Gamma that is greater than the sum of the distinguishing number plus the chromatic number.

For further information:
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