



Announcing

**A Colloquium Presentation
October 3, 2008 at 2:00 pm
Walker Science Building 244**

at The University of Southern Mississippi

Speaker: Jeremy Lyle

Department of Mathematics
The University of Southern Mississippi

Title: Role Assignments of Graphs

Abstract:

Role assignments of social networks were developed as a way to map individuals to societal roles, such that the interactions between individuals behaved according to the interaction between societal roles. Role assignments also follow naturally as refinements of graph homomorphisms. A dominating set of a graph is a subset of the vertices such that every vertex has a neighbor in the set. Role assignments also allow a clear treatment of the process of partitioning the vertices of the graph into sets which are one of two variations on dominating sets.

In this talk, I will define role assignments of a graph, and then discuss the complexity of finding role assignments of graphs, for general graphs as well as for particular classes of graphs. I will also examine more closely the link between role assignments and partitions of the vertex set into variations of dominating sets.

Further Information

Further details and information about this and other departmental activities is available online at http://www.math.usm.edu/bulletin_board/.