Combinatorics Seminar

Friday, April 1, 2005

3:00 pm in Hume 331

Emlee Woodard

Department of Mathematics
The University of Mississippi

Long Cycles Containing k-ordered Vertices in Graphs

ABSTRACT

A graph G is said to be k-ordered if for every ordered set S of k vertices, there is a cycle in G encountering S in the proper order. In this talk, some recent developments related to long cycles containing k-ordered vertices in graphs will be introduced. In particular, the following new result will be presented: If G is $(k+2)$-connected and k-ordered, then for any ordered set S of k vertices there is a cycle in G containing S in the proper order and of length at least $\min\{n, \sigma_2(G)\}$, where n is the number of vertices of G and $\sigma_2(G)$ is the minimum sum of the degrees of two nonadjacent vertices. This generalizes several results known before.