

COLLOQUIUM

Minimum Degree and Disjoint Cycles in Generalized Claw-free Graphs

Ralph Faudree
The University of Memphis

Abstract: For $s \geq 3$ a graph is $K_{1,s}$ -free, if it does not contain an induced subgraph isomorphic to $K_{1,s}$. For $s = 3$, such graphs are called claw-free graphs. Results on disjoint cycles in claw-free graphs satisfying certain minimum degree conditions will be discussed, such as if G is claw-free of sufficiently large order $n = 3k$ with $\delta(G) \geq n/2$, then G contains k disjoint triangles. Also, the extension of results on disjoint cycles in claw-free graphs satisfying certain minimum degree conditions to $K_{1,s}$ -free graphs for $s > 3$ will be presented. These results will be used to prove the existence of minimum degree conditions that imply the existence of powers Hamiltonian cycle in generalized claw-free graphs.

Friday, September 14, 2012, 4:00 pm
Mathematics and Science Center: W303

MATHEMATICS AND COMPUTER SCIENCE
EMORY UNIVERSITY