1026-05-175   **Michael J Ferrara*** (`michael.ferrara@cudenver.edu`), **Michael S Jacobson** and **Angela Harris**. *Hamiltonian Cycles That Avoid Sets of Edges in a Graph.*

A spanning cycle in a graph G is called a *hamiltonian cycle* and if such a cycle exists, G is said to be *hamiltonian*. For any fixed H, a graph G is said to be *H-avoiding hamiltonian* if for any subgraph G' of G that is isomorphic to H, there is a hamiltonian cycle C in G such that $E(C) \cap E(G') = \emptyset$.

In this talk, we give several results pertaining to H-avoiding hamiltonian graphs, some of which extend classical theorems of Dirac and Ore. In particular we will consider the case where H is itself a hamiltonian cycle, and relate this case to the problem of extending families of edge-disjoint hamiltonian cycles. (Received February 26, 2007)