

# Hamiltonian Cycles in $k$ -Partite Graphs

Louis DeBiasio, Robert Krueger\*, Dan Pritikin, Eli Thompson

*Department of Mathematics, Miami University, Oxford, OH 45056*

kruegera@miamioh.edu

Chen, Faudree, Gould, Jacobson, and Lesniak determined the minimum degree threshold for which a balanced  $k$ -partite graph has a Hamiltonian cycle, extending a result of Moon and Moser about Hamiltonian cycles in balanced bipartite graphs. However, when  $k \geq 3$  a Hamiltonian  $k$ -partite graph is not necessarily balanced. We determine some minimum degree thresholds for Hamiltonian cycles in (not-necessarily-balanced)  $k$ -partite graphs.