

# Minimal Degree and $(k, m)$ -Pancyclic Ordered Graphs

Ron Gould\*

Emory University

Ralph Faudree

University of Memphis

Mike Jacobson

University of Colorado at Denver

Linda Lesniak

Drew University

## Abstract

Given positive integers  $k \leq m \leq n$ , a graph  $G$  of order  $n$  is  $(k, m)$ -*pancyclic ordered* if for any set of  $k$  vertices of  $G$  and any integer  $r$  with  $m \leq r \leq n$ , there is a cycle of length  $r$  encountering the  $k$  vertices in a specified order. Minimum degree conditions that imply a graph of sufficiently large order  $n$  is  $(k, m)$ -pancyclic ordered are proved. Examples showing that these constraints are best possible are also provided.