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**Alan P. Sprague\*** (sprague@uab.edu). *Multi-threshold Graphs.*

Graph  $G$  is a  $k$ -threshold graph with regard to thresholds  $\theta_1 < \theta_2 < \dots < \theta_k$  provided there exists an assignment of real ranks  $r(v)$  to vertices  $v$  such that two vertices  $v, w$  are adjacent iff the sum  $r(v) + r(w)$  exceeds an even number of thresholds. 1-threshold graphs are the same as the classical threshold graphs of Chvatal and Hammer. We will describe relations between permutation graphs and 2-threshold graphs. We will examine permutation graphs for which 2 thresholds do not suffice, and also describe other classes for which many thresholds are required. (Received January 27, 2019)