

1126-13-231      **Darrin Weber\*** (dweber3@vols.utk.edu). *Cut-Sets in the Ideal-Divisor Graph*. Preliminary report.

Cut-sets were introduced in the study of zero-divisor graphs in 2010 where they were classified for all nonlocal finite commutative rings. A cut-set is a minimal set of vertices that when removed from the graph increase the number of connected components in the graph. In this talk we study cut-sets further and examine them in the ideal-divisor graph. The ideal-divisor graph of a ring  $R$  and ideal  $I$  is a graph with vertices  $\{x \in R \setminus I \mid xy \in I \text{ for some } y \in R \setminus I\}$ , and two vertices  $x$  and  $y$  are connected by an edge if and only if  $xy \in I$ . (Received January 14, 2017)