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**Christopher Park Mooney\*** ([christopher.mooney@westminster-mo.edu](mailto:christopher.mooney@westminster-mo.edu)), Westminster College, 501 Westminster Avenue, Fulton, MO 65251. *On Labelings of Zero-Divisor Graphs*. Preliminary report.

We study graphs associated with a commutative ring with zero-divisors,  $R$ , called the zero-divisor graph,  $\Gamma(R)$ . This is the simple, undirected graph whose vertices are the non-zero, zero-divisors and has an edge between distinct vertices  $x$  and  $y$  if  $xy = 0$ . Much of the initial research surrounding these graphs revolved around coloring the zero-divisor graph, which can be viewed as a particular type of vertex labeling. In this talk, we focus on other important labelings that have received significant attention in graph theory. We present several results about infinite classes of rings whose zero-divisor graphs either do or do not satisfy these various labeling properties. We also discuss current and future related research. (Received November 21, 2016)