1083-20-152   **Lisa DeMeyer*** (`demey1la@cmich.edu`), Mathematics Department, 214 Pearce Hall, Central Michigan University, Mount Pleasant, MI 48858, and **Peter Vermeire**. *A simplicial complex for the zero divisor graph of a semigroup.* Preliminary report.

The zero divisor graph of a semigroup is the graph whose vertices are the non-zero zero divisors of the semigroup. Two distinct vertices are adjacent in the graph in case their product is zero. In 2005 a simplicial complex associated to the zero divisor graph of a semigroup was introduced by F. DeMeyer and L. DeMeyer. One goal of this talk is describe the simplicial complex, provide nontrivial examples, and discuss new directions of investigation. (Received August 26, 2012)