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Mathias Schulze, Oklahoma State University, Dept Of Mathematics, Stillwater, OK , and **Uli Walther*** (walther@math.purdue.edu), Purdue University, Dept of Math, West Lafayette, IN 47906. *The Newton filtration on a semigroup ring.*

A set of generators of a semigroup S inside a lattice induces a Newton filtration on the semigroup and on the associated semigroup ring. The associated graded objects are of interest in various parts of algebraic geometry. We discuss how to compute the graded objects with a system such as Macaulay2. The point is that the Newton filtration is not (usually) a weight filtration. (Received January 07, 2008)