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Kevin Tucker* (kftucker@uic.edu) and **Milena Hering**. *F-splitting ratio of monoid algebras.*

The F-splitting ratio and dimension are invariants first defined by I. Aberbach and F. Enescu that govern the asymptotic number of splittings of the iterates of Frobenius for a local ring. In this talk, I will discuss joint work with M. Hering giving a combinatorial formula for the F-splitting ratio and dimension of monoid algebras. Our characterization builds up the work M. Von Korff in the normal setting, and realizes the F-splitting ratio as the (appropriately scaled) lattice volume of particular polytope. In particular, this makes it rather easy to produce many examples of local rings of various F-splitting dimensions. (Received July 29, 2014)