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Daniel Smolkin* (smolkin@ou.edu), **Marcus Robinson** and **Dylan Johnson**. *Conic modules of Hibi rings*. Preliminary report.

Given a ring R and a divisor D on $\text{Spec}R$, one associates an R -module $R(D)$. If R is a toric ring, then one associates to a R a distinguished subset of the modules called the conic modules of R . These conic modules played an important role in Faber-Muller-Smith's work on non-commutative resolutions. They are also useful in the study of F -singularities since these conic modules are exactly the irreducible R -module summands of $R^{1/q}$, up to isomorphism.

In this talk, we will describe one can use the theory of chip-firing games to achieve a novel classification of the conic modules of Hibi rings. (Received February 04, 2020)