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Irina Georgeana Iliaea* (iiliaoea1@gsu.edu) and **Florian Enescu** (fenescu@gsu.edu).

Strong test ideals associated to Cartier algebras. Preliminary report.

In this talk, Cartier algebras are used to produce a large class of strong test ideals for a local F -finite reduced ring of positive characteristic. Results of Vraciu and Takagi are recovered under this new framework.

The main result of the talk states that the number of generators of the test ideal associated to pairs of Stanley-Reisner rings and linear maps is actually the number of facets of the simplicial complex associated to the Stanley-Reisner ideal.

Moreover, we will show how our results motivated us to introduce a new class of rings, called *n-tight* rings. (Received February 03, 2018)