1120-13-265 Roberto Barrera* (rbarrera@math.tamu.edu), Jeffrey Madsen and Ashley K. Wheeler. A finiteness result for local cohomology modules of Gorenstein Stanley-Reisner rings. Preliminary report.

Let k be a field, let R be a polynomial ring, and let \mathcal{D} be the ring of k-linear differential operators of R. In 2010, Lyubeznik gave a characteristic free proof that R_f has finite length in the category of \mathcal{D} -modules. Using a similar approach, we show an analogous statement for when R is a Gorenstein Stanley-Reisner ring. (Received February 23, 2016)