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Benjamin J Braun* (benjamin.braun@uky.edu), 715 Patterson Office Tower, Department of Mathematics, University of Kentucky, Lexington, KY 40506. *s-Lecture Hall Partitions, Self-Reciprocal Polynomials, and Gorenstein Algebras*. Preliminary report.

In 1997, Bousquet-Melou and Eriksson initiated the study of lecture hall partitions, a fascinating family of partitions that yield a finite version of Euler's celebrated odd/distinct theorem. In subsequent work on s-lecture hall partitions, they considered the self-reciprocal property for various associated generating functions. We continue this line of investigation, connecting their work to the more general context of Gorenstein semigroup algebras. We focus on the Gorenstein condition for s-lecture hall cones when s is a sequence generated by a two-term recurrence with initial values 0 and 1.

This is joint work with Matthias Beck, Matthias Koeppel, Carla Savage, and Zafeirakis Zafeirakopoulos. (Received August 22, 2012)