1131-13-243 **Lukas Katthän*** (katth001@umn.edu). *Linear maps in the resolutions of Stanley-Reisner rings.*

Let Δ be a simplicial complex. Let further $I \subset S$ be its Stanley-Reisner ideal and let F be the minimal free resolution of the Stanley-Reisner ring S/I. By Hochster's formula, generators of F correspond to cohomology classes on induced subcomplexes of Δ. In this talk, I will present an extension of this correspondence, namely that the linear part of F corresponds to the inclusion maps between the induced subcomplexes of Δ.

As an application, we obtain a characterization of those simplicial complexes whose Stanley-Reisner ideal is componentwise linear. (Received July 16, 2017)