1159-13-106 **Jason McCullough** and **Alexandra Seceleanu*** (aseceleanu@unl.edu). *Three short stories featuring idealization.*

Idealizations (also known as trivial extensions) of modules have been introduced by Nagata to extend results about ideals to modules. This construction also comes up in combinatorics, where it is featured in a famous example due to Stanley of a symmetric h-vector which is not unimodal.

This talk will focus on the homological properties of graded idealizations and their Hilbert functions. Several examples of graded Artinian Gorenstein rings obtained by idealization and exhibiting surprising behaviors will be analyzed in regards to the Koszul property, the subadditivity of Betti numbers, and the unimodality of Hilbert functions. (Received August 02, 2020)