1171-13-159 Lauren Cranton Heller* (lch@math.berkeley.edu), Mahrud Sayrafi and Juliette Bruce.

Characterizing multigraded regularity on products of projective spaces. Preliminary report.

The Castelnuovo-Mumford regularity of a sheaf on projective space can be described in terms of the minimal free resolutions of the corresponding graded module and its truncations. This characterization does not hold for the multigraded generalization of regularity defined by Maclagan and Smith. I will present an analogous criterion for regularity on products of projective spaces, relating resolutions of truncations to a type of virtual resolution constructed by Berkesch, Erman, and Smith. (Received August 10, 2021)