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**Juliette Bruce\*** ([juliette.bruce@berkeley.edu](mailto:juliette.bruce@berkeley.edu)), **Lauren Cranton Heller** and **Mahrud Sayrafi**. *Multigraded Castelnuovo-Mumford regularity and Powers*. Preliminary report.

A classical result of Cutkosky, Herzog and Trung and Kodiyalam states that if  $I$  is a homogenous ideal in a standard graded polynomial ring then the Castelnuovo-Mumford regularity of  $I^n$  is a linear function in  $n$ . I will discuss generalizations of this result describing the multigraded Castelnuovo-Mumford of powers of ideals for multigraded polynomial rings. (Received August 09, 2021)