

1154-11-123

**Jordan Ellenberg, Matthew Satriano\*** (msatrian@uwaterloo.ca) and **David Zureick-Brown**. *New types of heights with connections to the Batyrev-Manin and Malle Conjectures.*

The Batyrev-Manin conjecture gives a prediction for the asymptotic growth rate of rational points on varieties over number fields when we order the points by height. The Malle conjecture predicts the asymptotic growth rate for number fields of degree  $d$  when they are ordered by discriminant. The two conjectures have the same form and it is natural to ask if they are, in fact, one and the same. We develop a theory heights on stacks, and give a conjecture for the growth rate of points on stacks which specializes to the two aforementioned conjectures. (Received August 11, 2019)