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Jordan Ellenberg* (ellenber@math.wisc.edu), **Matthew Satriano** and **David Zureick-Brown**. *Heights of rational points on stacks*.

The theory of rational points on stacks over global fields is just as interesting as the theory of rational points on varieties, and handles many examples the classical theory does not; for instance, a finite extension of \mathbb{Q} can be seen as a rational point on the classifying stack of a finite group. But one crucial element is missing – a notion of height. We define such a notion, explain how it recovers many classical notions of "complexity" in arithmetic, and speculate about the asymptotics of counting points on stacks of bounded height. (Received September 16, 2019)