1176-11-273      **Lea Beneish*** (`leabeneish@math.berkeley.edu`) and **Andrew Granville**. *Degree d points on plane curves.*

Given a plane curve $C$ defined over $\mathbb{Q}$, when the genus of the curve is greater than one, Faltings' theorem tells us that the set of rational points on the curve is finite. It is then natural to consider higher degree points, that is, points on this curve defined over fields of degree $d$ over $\mathbb{Q}$. We ask for which natural numbers $d$ are there points on the curve in a field of degree $d$. There is a lot of structure in the set of values $d$, some of which we will explain in this talk. This talk is based on joint work with Andrew Granville. (Received January 24, 2022)