

1154-14-333

Campbell Hewett* (chewett@mit.edu). *Computability of rational points on curves over function fields in characteristic p .*

Let k be a perfect field of characteristic p , and let K be a field finitely generated over k . This talk is concerned with regular nonsmooth curves X over K , also known as genus-changing curves. Assuming k has finite transcendence degree over its prime field, we give an algorithm to compute the set of K -points $X(K)$ that expands on the proofs of finiteness of $X(K)$ given by Voloch and Jeong. This, together with Szpiro's height bound for K -points on smooth nonisotrivial curves of genus at least two, proves the effective Mordell conjecture for regular curves in positive characteristic. (Received August 31, 2019)