Kirsten Eisentraeger* (eisentra@umich.edu), Department of Mathematics, University of Michigan, 2074 East Hall, Ann Arbor, MI 48109. Hilbert’s Tenth Problem for function fields of characteristic zero.

We will discuss how elliptic curves of rank one can be used to prove undecidability of Hilbert’s Tenth problem for function fields of characteristic zero, such as $\mathbb{R}(t)$ and function fields of varieties over $\mathbb{C}$ of dimension at least two. (Received September 22, 2005)