

1154-14-1486

Sarah Frei* (sf31@rice.edu). *Derived equivalence and rational points.*

It is natural to ask which properties of a smooth projective variety are recovered by its derived category. In this talk, I will consider the question: is the existence of a rational point preserved under derived equivalence? In recent joint work with Nicolas Addington, Ben Antieau, and Katrina Honigs, we show that over \mathbb{Q} , the answer is no. We give two counterexamples: an abelian variety and a torsor over it, and a pair of hyperkaehler fourfolds. (Received September 15, 2019)