A Conference in Arithmetic Algebraic Geometry in Memory of Jan Nekovář

ID de Contribution: 14

Conjectures on L-functions for Varieties Over Function Fields and Their Relations

jeudi 12 octobre 2023 11:15 (1 heure)

(Joint work with T. Keller, Groningen, and Y. Qin, Berkeley)

We consider versions for smooth varieties X over finitely generated fields K in positive characteristic p of several conjectures that can be traced back to Tate, and study their interdependence. In particular, let A/K be an abelian variety. Assuming resolutions of singularities in positive characteristic, I will explain how to relate the BSD-rank conjecture for A to the finiteness of the p-primary part of the Tate-Shafarevich group of A using rigid cohomology. Furthermore, I will discuss what is needed for a generalisation.

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