

Upstate New York Online Number Theory Colloquium

Time and Date: 12:00 EST June 22, 2020

Speaker: Maxim Mornev

Title: Tate conjectures in function field arithmetic

Abstract: Many versions of Tate conjectures were proved for Drinfeld modules and for their higher-dimensional generalizations, the t -modules of Anderson. The underpinning of this success is a technically simple but powerful theory of t -motives pioneered by Anderson. In this talk I shall describe an approach to Tate conjectures for t -modules which implies all the known versions and explains why some variants of the conjectures fail. The approach combines the theory of t -motives with the t -adic counterpart of the theory of overconvergent F -isocrystals.