

Speaker: Jeremy Booher

Title: Geometric Iwasawa theory

Abstract. For a prime p , let K_n form a \mathbb{Z}_p -tower of function fields corresponding to smooth projective curves C_n over a finite field of characteristic p . The genus is a well-understood invariant of algebraic curves, and the genus of C_n depends on n in a simple fashion. In characteristic p , there are additional curve invariants like the a -number which are poorly understood. They describe the group-scheme structure of the p -torsion of the Jacobian of C_n , a geometric generalization of the class group of K_n . I will describe work with Bryden Cais, Joe Kramer-Müller, and James Upton which shows that the a -number and more generally p -part of the "motivic class group" of C_n depends regularly on n .