
WANLIN LI, Washington University in St. Louis
Ordinary Reductions of Abelian Varieties

Given an abelian variety A defined over a number field L , a conjecture attributed to Serre states that the density of primes of L at which A admits ordinary reduction is of positive density. This conjecture had been proved for elliptic curves (Serre, 1977), abelian surfaces (Katz 1982, Sawin 2016) and certain higher dimensional abelian varieties (Pink 1983, Fite 2021, etc). We will discuss some of the ideas behind these results and recent progress for abelian varieties with non-trivial endomorphisms, including the case of those with almost complex multiplication by an abelian CM field. This talk is based on joint work in progress with Victoria Cantoral-Farfan, Elena Mantovan, Rachel Pries, and Yunqing Tang.