

On uniformity conjectures for abelian varieties and K3 surfaces over number fields

Yuri Zarhin, Pennsylvania State University

We discuss logical links among uniformity conjectures concerning K3 surfaces and abelian varieties of bounded dimension defined over number fields of bounded degree. The conjectures concern the endomorphism algebra of an abelian variety, the Picard lattice of a K3 surface, and the Galois invariant subgroup of the geometric Brauer-Grothendieck group. (This talk is based on a joint work with Martin Orr and Alexei Skorobogatov.)