ODTU-Bilkent Algebraic Geometry

Rational points on the Noether-Lefschetz locus of K3 moduli spaces

By

Domenico Valloni
(Hannover)

Abstract: Let L be an even hyperbolic lattice and denote by F_L the moduli space of L-polarized K3 surfaces. This parametrizes K3 surfaces X together with a primitive embedding of lattices L --->NS(X) and, when L = < 2d >, one recovers the classical moduli spaces of 2d-polarized K3 surfaces. In this talk, I will introduce a simple criterion to decide whether a given \bar{Q}-point of F_L has generic Néron-Severi lattice (that is, NS(X) \cong L). The criterion is of arithmetic nature and only uses properties of covering maps between Shimura varieties.

Date: Friday, March 10, 2023
Time: 15:40 (GMT+3)
Place: Zoom

To request the event link, please send a message to sertoz@bilkent.edu.tr