

abstract

JOINT IAS/PU NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

We discuss the following question of Nick Katz and Frans Oort: Given an Algebraically closed field K , is there an Abelian variety over K of dimension g which is not isogenous to a Jacobian? For K the complex numbers its easy to see that the answer is yes for $g > 3$ using measure theory, but over a countable field like $\overline{\mathbb{Q}}$ new methods are required. Building on work of Chai-Oort, we show that, as expected, such Abelian varieties exist for $K = \overline{\mathbb{Q}}$ and $g > 3$. We will explain the proof as well as its connection to the Andre Oort conjecture.