

abstract

PRINCETON/IAS NUMBER THEORY

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Shimura Curves over \mathbb{Q} parameterize abelian surfaces with quaternionic multiplication. However the universal families exist only when considerable level structure is added. This makes it difficult to write equations for these families, or equivalently to pass from an analytic to an algebraic description. In joint work with A. Besser we show that very little level structure suffices to describe the associated universal Kummer families. We exhibit these families as elliptic surfaces with prescribed singular fibers. This form is particularly adapted to the study of families of Calabi-Yau varieties, and it makes transparent their associated Picard-Fuchs equations.