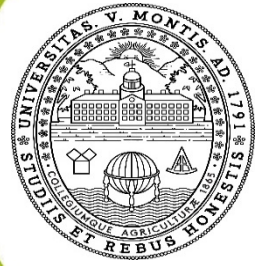


UVM MATHEMATICS COLLOQUIUM



Special Loci on Moduli Spaces of Abelian Varieties with Complex Multiplication

Anton Hilado

UVM

Monday, March 4, 2024, 3:25-4:25

E430 Innovation

Abstract

Moduli spaces of abelian varieties possess very interesting geometry. For instance, they may contain subvarieties which are themselves moduli spaces of what may be viewed as different abelian varieties. The study of the intersections of these special subvarieties with other "special" loci such as the loci where the abelian varieties have certain endomorphism structure is a generalization of the theory of singular moduli studied by Gross and Zagier. The work of Lauter and Yang (and later Lauter and Viray) applies the theory to study certain invariants of cryptographic interest for genus 2 curves. In this talk we will describe ongoing work on a genus 3 version of these pioneering works.

ADA: Individuals requiring accommodations, please contact Doreen Taylor at (802) 656-3166