

**Ching-Li Chai**

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will speak on

**Hecke symmetries on moduli spaces**

ABSTRACT: Let  $A_g$  be the moduli space of  $g$ -dimensional principally polarized abelian varieties. Over the complex numbers,  $A_g$  has a large collection of symmetries, known as Hecke correspondences; these symmetries are systematically studied in the context of automorphic forms. Over a field of positive characteristic  $p$ , the Hecke symmetries are closely connected to a family of algebraic subvarieties of  $A_g$  known as leaves. Each leaf is stable under prime-to- $p$  Hecke correspondences, and  $A_g$  is the disjoint union of these leaves. Oort conjectured that every Hecke orbit is dense in the leaf containing it. This conjecture is now a theorem, and we will explain some of the methods motivated by the Hecke orbit conjecture.

MONDAY, APRIL 10, 2006

LECTURE AT 4:00 PM (#)

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS