

ALGEBRA  
SEMINAR

*Equations for Hilbert modular surfaces*

Abhinav Kumar  
MIT

**Abstract:** I will describe a method to compute models for Hilbert modular surfaces  $Y_-(D)$ , parametrizing principally polarized abelian surfaces with real multiplication by the full ring of integers in the quadratic field of discriminant  $D$ , through moduli spaces of elliptic K3 surfaces. I will also show a couple of applications of these explicit equations, in number theory and in geometry/dynamics.

Wednesday, April 24, 2013, 3:00 pm  
Mathematics and Science Center: W306

MATHEMATICS AND COMPUTER SCIENCE  
EMORY UNIVERSITY