



Algebra and Number Theory Seminar

Title: PhD Defence: Classification of Isogeny classes of Supersingular Abelian Varieties over Finite Fields

Speaker: Vijaykumar Singh

Date: Thu 9th June 2011 at 2:30PM

Location: Mathematical Sciences Seminar Room

Abstract: We study the intersection of two particular Fermat hyper-surfaces in P^3 over a finite field. Using Rosen decomposition we study arithmetic properties of this curve in terms of its quotients. Explicit computation of rank, zeta function, and number of rational points, of the moduloproduction of the curve. We show that the curve splits. We also give a complete classification of the isogeny classes of supersingular abelian varieties for Tate Theory.