

## Number theory Seminar

Speaker: Kartik Prasanna, UCLA

Time and place: Monday, Nov. 14, MS 5137

Title: **Elliptic curves, quadratic twists and  $p$ -(in)divisibility of  $L$ -values**

Abstract:

Let  $E$  be an elliptic curve over the rationals and  $p$  a fixed prime. A (very hard) question of Kolyvagin asks if there exists a quadratic discriminant  $d$  such that the Tate-Shafarevich group of the quadratic twist  $E_d$  has order prime to  $p$ . I will explain some recent results related to this question that are obtained by studying the  $p$ -adic properties of the Shimura correspondence.