

SCMS Seminar



MONTHLY NUMBER THEORY WEEK: MAY

DIOPHANTINE EQUATIONS, SELMER GROUPS AND L-FUNCTIONS

Dr. Yifeng Liu

Massachusetts Institute of Technology

Title: Diophantine equations, Selmer groups and L-functions

Abstract: The study of elliptic curves, a special class of Diophantine equations, is a central topic in number theory. For a given elliptic curve, the Birch and Swinnerton-Dyer (B-SD) Conjecture predicts a deep relation between its solution set and an analytic invariant, known as the L-function. The B-SD Conjecture was later vastly generalized to cases of higher dimensional varieties by Beilinson, Bloch, Kato, et al. In this series of two talks, we will discuss this generalized conjecture, together with some new results and methods toward it.

Lecture 1

Time: 3:00-4:00 pm., Wednesday, May 27, 2015

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Lecture 2

Time: 3:00-4:00 pm., Thursday, May 28, 2015

Venue: Room 2201, East Main Guanghua Tower, Handan Campus