

STAGE: Seminar on Topics in Arithmetic, Geometry, Etc.

ELLIPTIC CURVES, QUADRATIC TWISTS AND L -VALUES

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The first half of the talk will be an elementary discussion of elliptic curves, their associated L -functions and the structure of the Birch and Swinnerton-Dyer conjecture (BSD) for the behaviour of such L -functions at the central point $s = 1$.

In the second half, I will begin by explaining a theorem of Waldspurger on nonvanishing of central values of quadratic twists, and its applications, most notably to BSD. Finally, I will formulate a conjectural “mod p ” analog of Waldspurger’s theorem and describe some recent results that are related to this problem.

Friday, February 10th
11:00 a.m.
MIT Room 2-143

<http://math.mit.edu/~kedlaya/stage/>