

BERNOULLIS TAFELRUNDE

MATH STUDENT AND PHD SEMINAR

Thursday, 31 October 2024, 16:15 - 17:00
Seminar Room 00.003, Spiegelgasse 1

SHENGHAO HUA

EPFL (Lausanne)

Extreme Central L-values of Almost Prime Quadratic Twists of Elliptic Curves

ABSTRACT

The Birch and Swinnerton-Dyer conjecture predicts a connection between the value of L-function at the central point of an elliptic curve and the order of its Tate-Shafarevich group. In this talk, we present a result concerning the extreme central L-values for almost prime quadratic twists of an elliptic curve. As an application, we derive the extreme values for the Tate-Shafarevich groups within the quadratic twist family of an elliptic curve, assuming the Birch and Swinnerton-Dyer conjecture holds.