Speaker: Wei Zhang

Title: Heegner points and a B-SD conjecture

Abstract: We prove a B-SD conjecture for elliptic curves (for the p^∞ Selmer groups with arbitrary rank) a la Mazur-Tate and Darmon in the anti-cyclotomic setting, for certain primes p. This is done, among other things, by proving a conjecture of Kolyvagin in 1991 on p-indivisibility of (derived) Heegner points over ring class fields. Some applications follow, for example, the p-part of the refined B-SD conjecture in the rank one case.