

**Speaker:** Kartik Prasanna

**Title:** Extensions of the Gross-Zagier formula

**Abstract:** In the first half of the talk, I will give an introduction to the general conjectural picture relating algebraic cycles to L-functions and discuss some extensions of the Gross-Zagier formula involving  $p$ -adic L-functions. This leads naturally to the question of constructing algebraic cycles corresponding to the vanishing of Rankin-Selberg L-functions at the center of symmetry. In the second half, I will discuss some new constructions of such cycles, based on work in progress with A. Ichino.