TING-HAN HUANG, Concordia University
Special values of triple product p-adic L-functions and p-adic Abel-Jacobi maps

In 2013, H. Darmon and V. Rotger proved a so-called p-adic Gross-Zagier formula, which relates the value of the triple product p-adic L-function attached to Hida families at a balanced classical triple, to the image of the generalized diagonal cycle under the p-adic Abel-Jacobi map, evaluated at a certain differential. In this talk, I will present a generalization of their result to finite slope families. We first introduce the construction of the triple product p-adic L-function by F. Andreatta and A. Iovita. Then we explain the Abel-Jacobi map, the explicit computation of which involves A. Besser's finite polynomial cohomology theory. In the end, we will show how to relate the two objects, and hence prove the p-adic Gross-Zagier formula. If time permits, we will also mention how the formula contributes to the equivariant BSD conjecture.