

Santiago Molina. **Triple product p-adic L-functions over totally real number fields**

During the nineties Kato obtained deep results on the Birch and Swinnerton-Dyer conjecture in rank 0 for twists of elliptic curves over \mathbb{Q} by Dirichlet characters. More recently, Bertolini-Darmon-Rotger and Darmon-Rotger developed analogous methods to treat twists by certain Artin representations of dimension 2 and 4. The main tool of these methods is the construction of triple product p-adic L-functions attached to modular forms over \mathbb{Q} .

The aim of this talk is to explain how to construct triple product p-adic L-functions attached to automorphic forms over totally real fields by exploiting the techniques of Andreatta and Iovita. Moreover, we will introduce the main ideas of joint ongoing work with Barrera and Rotger which aims to generalize the results used of Kato, BDR and DR to totally real number fields.