
MIAO (PAM) GU, University of Michigan
On Triple Product L -functions

The Poisson summation conjecture of Braverman-Kazhdan, Lafforgue, Ngô and Sakellaridis is an ambitious proposal to prove analytic properties of quite general Langlands L -functions using vast generalizations of the Poisson summation formula. In this talk, we present the construction of a generalized Whittaker induction such that the associated L -function is the product of the triple product L -function and L -functions whose analytic properties are understood. We then formulate an extension of the Poisson summation conjecture and prove that it implies the expected analytic properties of triple product L -functions. Finally, we use the fiber bundle method to reduce this extended Poisson summation conjecture to a case of the Poisson summation conjecture in which spectral methods can be employed together with certain local compatibility statements. This is joint work with Jayce Getz, Chun-Hsien Hsu, and Spencer Leslie.