

ALGEBRA
SEMINAR

Overconvergent differential operators acting on Hilbert modular forms

Jon Aycock
University of California, San Diego

Abstract: In 1978, Katz gave a construction of the p -adic L -function of a CM field by using a p -adic analog of the Maass–Shimura operators acting on p -adic Hilbert modular forms. However, this p -adic Maass–Shimura operator is only defined over the ordinary locus, which restricted Katz’s choice of p to one that splits in the CM field. In 2021, Andreatta and Iovita extended Katz’s construction to all p for quadratic imaginary fields using overconvergent differential operators constructed by Harron–Xiao and Urban, which act on elliptic modular forms. Here we give a construction of such overconvergent differential operators which act on Hilbert modular forms.

Tuesday, October 25, 2022, 4:00 pm
Mathematics and Science Center: MSC N304

MATHEMATICS
EMORY UNIVERSITY