

March 11: Loren Spice (University of Michigan), “Supercuspidal characters and applications.” FOLLOWED BY DINNER.

In 2000, J.-K. Yu described a construction of supercuspidal characters of general reductive p -adic groups that generalizes the classical construction of Howe and Moy (and is often exhaustive, by J.-L. Kim). Together with J. Adler, we computed the characters of many of these representations using Harish-Chandra’s integral formula.

By analogy with the case of real groups, character formulae for p -adic groups are expected to have many applications in harmonic analysis. One important application arises in the study of the local Langlands correspondence, where one wants to be able to prove that certain combinations of characters are (loosely speaking) invariant under geometric conjugacy. We discuss joint results in this direction with S. DeBacker.