

abstract

Joint IAS/PU Number Theory Seminar
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

For $GL(2)$ over \mathbb{Q}_p , the p -adic Langlands correspondence is available in its full glory, and has had astounding applications to Fontaine-Mazur, for instance. In higher rank, not much is known. Breuil and Schneider put forward a conjecture, which is a somewhat coarse version of p -adic Langlands for $GL(n)$. It roughly says that an admissible filtration exists if and only if an invariant norm exists. One direction (producing a filtration) was completely proved by Hu in his Orsay thesis. In my talk, I will report on progress in the opposite direction (producing a norm). I will first sketch the proof in the "indecomposable" case, where one can pass to a global setting by a standard trace formula argument, and construct a norm from p -adic modular forms. I will then explain how these ideas adapt to the "decomposable" case, and point out how an eigenvariety for $U(n)$ parametrizes a global analogue of the p -adic Langlands correspondence. The last part makes heavy use of local-global compatibility at $p \neq l$ (due to Barnet-Lamb, Gee, Geraghty, Taylor & Caraiani).