March 2: Jessica Fintzen (Harvard), "On the Moy-Prasad filtration and supercuspidal representations."

Reeder and Yu gave recently a new construction of certain supercuspidal representations of p-adic reductive groups (called epipelagic representations). Their construction relies on the existence of stable vectors in the first Moy-Prasad filtration quotient under the action of a reductive quotient. We will explain these ingredients and present a theorem about the existence of such stable vectors for all primes p. This builds on a result of Reeder and Yu about the existence of stable vectors for large primes and generalizes the paper of the speaker and Romano, which treats the case of an absolutely simple split reductive group. In addition, we will present a general set-up that allows us to compare the Moy-Prasad filtration representations for different primes p. This provides a tool to transfer results about the Moy-Prasad filtration from one prime to arbitrary primes and also yields a new description of the Moy-Prasad filtration representations.