

**November 7:** Jessica Fintzen (Trinity College/University of Michigan), “Representations of  $p$ -adic groups.”

In the 1990s Moy and Prasad revolutionized  $p$ -adic representation theory by showing how to use Bruhat-Tits theory to assign invariants to  $p$ -adic representations. The tools they introduced resulted in rapid advancements in both representation theory and harmonic analysis—areas of central importance in the Langlands program. A crucial ingredient for many results is an explicit construction of (types for) representations of  $p$ -adic groups. In this talk I will indicate why, survey what constructions are known (no knowledge about  $p$ -adic groups assumed) and present recent developments based on a refinement of Moy and Prasad’s invariants.