SARAH DIJOLS, University of British Columbia
Parabolically induced representations of p-adic G2 distinguished by SO4

Distinguished representations are representations of a reductive group G on a vector space V such that there exists a H-invariant linear form for a subgroup H of G. They intervene in the Plancherel formula in a relative setting, as well as in the Sakellaridis-Venkatesh conjectures for instance. I will explain how the Geometric Lemma allows us to classify parabolically induced representations of the p-adic group G_2 distinguished by SO_4. In particular, I will describe a new approach, in progress, where we use the structure of the p-adic octonions and their quaternionic subalgebras to describe the double coset space $P \backslash G_2 / SO_4$, where P stands for the maximal parabolic subgroups of G_2.