

Speaker: Karol Koziol

Title: Poincare duality for modular representations of p -adic groups
and Hecke algebras

Abstract: The mod- p representations theory of p -adic reductive groups (such as $\mathrm{GL}_2(\mathbb{Q}_p)$) is one of the foundations of the rapidly developing mod- p local Langlands program. However, many constructions from the case of complex coefficients are quite poorly behaved in the mod- p setting, and it becomes necessary to use derived functors. In this talk, I'll describe how this situation looks for the functor of smooth duality on mod- p representations, and discuss the construction of a Poincare duality spectral sequence relating Kohlhaase's functors of higher smooth duals with modules over the (pro- p) Iwahori-Hecke algebra.