

November 5: Roman Bezrukavnikov (MIT), “Character sheaves and the center of categorical (asymptotic) Hecke algebra.”

Character sheaves were defined by Lusztig as a tool to describe characters of finite Chevalley groups. The definition also makes sense in the setting of algebraic D -modules. Character D -modules were studied by Grojnowski, Ginzburg, Mirkovic-Vilonen *et al.* who found simpler geometric proofs for some of Lusztig’s results. We make another step in this direction proving that character D -modules are identified with the categorical center of the categorical (asymptotic) Hecke algebra and rederiving classification of irreducible character sheaves.