

Speaker: David Helm

Title: A categorical Deligne-Langlands correspondence for split]
reductive groups

Abstract: Let G be a split reductive group over a p -adic field F . We construct a natural coherent sheaf on the moduli stack of unipotent Langlands parameters for G , called the coherent Springer sheaf, whose self-Ext algebra is naturally isomorphic to the Iwahori Hecke algebra for G . As a consequence we deduce the existence of a fully faithful embedding of the Iwahori block of the category of smooth representations of G into the derived category of ind-coherent sheaves on the moduli stack of Langlands parameters. For $G = GL_n$ we can go further and construct a fully faithful embedding of the category of all smooth representations of G into this derived category.