September 27: David Vogan (MIT), "The Langlands conjecture and covering groups (after Buzzard and Gee)."

Class field theory provides a bijection between "algebraic" characters of the idele class group of a number field F, and "compatible systems" of one-dimensional ℓ-adic representations of the Galois group $\mathrm{Gal}(\overline{F}/F)$. The Langlands conjecture, in a form made precise by Clozel in 1990, suggests a parallel relationship between "algebraic" automorphic forms for $GL(n, F)$, and compatible systems of n-dimensional ℓ-adic representations of $\mathrm{Gal}(\overline{F}/F)$. A recent preprint "The conjectural connection between automorphic representations and Galois representations," by Kevin Buzzard and Toby Gee, discusses the extension of these conjectures to automorphic forms on a general reductive group $G(F)$. A basic question is how properly to define "algebraic." What Buzzard and Gee argue is that there are *two* different interesting answers to this question, differing by a "rho shift." I'll explain their two definitions (called "L-algebraic" (for Langlands) and "C-algebraic" (for cohomological)).