

April 23, 2014: David Vogan (MIT), *Twisting representations and Hecke modules II*.

(This talk will be a continuation of last week's, making a bit more explicit the representations of $SO(p, q)$ and how to extend them to $O(p, q)$.)

Suppose $p + q = 2n$ is even, so that $G = SO(p, q) \subset O(p, q) = G'$ is a subgroup of index 2. Then $G'/G = \mathbb{Z}/2\mathbb{Z}$ acts on the set \widehat{G} of irreducible representations. I'll talk about some explicit combinatorial parameters given by Barbasch for representations of G ; how G'/G acts on those parameters; and then how the fixed point representations extend to G' . I'll connect these parameters to the BC_{n-1} Hecke algebra module defined in my paper with Lusztig (*Quasisplit Hecke algebras and symmetric spaces*, Duke Math. J. **163**, no. 5, 983–1034).