

September 28: David Vogan (MIT), “Nilpotent orbits and representation theory.”

The great remaining mystery about the Kirillov-Kostant “philosophy of coadjoint orbits” is the construction of representations of a reductive group G related to a nilpotent orbit of G on the dual of its Lie algebra. I will discuss some ideas of Lusztig concerning this relationship, particularly the Lusztig-Spaltenstein duality between nilpotent orbits for G and for the Langlands dual group.