November 5, 2014: Francisco Munoz (Yale), *Nilpotents orbits for some classical groups and classification problems.*

In this talk, I'll recall the theory of blocks and cells of Harish-Chandra modules for a real reductive group in the case of regular integral infinitesimal character and discuss the role nilpotent orbits play in their classification. I'll describe the combinatorics of those orbits for the group $Sp(p,q)$, and explain how this allows us to give a classification of associated varieties of certain generalized Harish-Chandra modules, as part of a program of Penkov and Zuckerman. If time permits, I'll end with a similar classification for $U(p,q)$ and discuss the differences between the two cases.