MIT Lie Groups Seminar

Wednesday 4:30–5:30, room 2-142

February 13: David Vogan (MIT), "Hodge filtrations on Harish-Chandra modules (after Schmid-Vilonen and Adams) II."

Last week I stated that Schmid and Vilonen have defined natural good filtrations on standard and irreducible Harish-Chandra modules, using Saito's theory of mixed Hodge modules. I also said that Jeff Adams has written code in the `atlas` software to "compute" these filtrations (more precisely, to compute the multipicity of each irreducible of K in each level of the filtration).

This week I will explain the idea of Adam's calculation; present some evidence that the calculations are correct; and try to state what facts about Hodge filtrations might be needed to *prove* that the calculations are correct.