November 2: David Vogan (MIT), “The size of infinite-dimensional representations.”

This talk is more or less practice for a general audience lecture I’m giving this weekend; it should be entirely accessible to non-experts, and not terribly interesting to the experts.

Since the 1960s and 70s there have been very nice notions of size for infinite-dimensional representations of Lie groups. These are due originally perhaps to Gelfand and Kirillov, and they were greatly sharpened and extended by Howe. I will talk about some of these definitions, and about some of the large open questions that they leave.