NORMS ON HARISH-CHANDRA MODULES

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Abstract:

I will report on work in progress with Bernstein, Ganguly, Kuit and Sayag. It is about to compare G-continuous norms on a Harish Chandra module with a fixed growth rate. We show that there is a maximal and minimal equivalence class of such norms and measure their Sobolev distance. This yields a new invariant which we call Sobolev gap. We provide upper and lower bounds for the Sobolev gap of a Harish Chandra module for $Sl(2, \mathbb{R})$.