



FMSP Lectures

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The Geometry of Tempered Characters

January 24 (Sat) 16:30 ~ 17:30, Room 126

Abstract: In this introductory talk, we will briefly recall parts of Harish-Chandra's theory of characters for reductive groups and the geometric formula of Rossmann and Duflo for tempered characters of reductive groups. Examples will be given in the case $G=SL(2,\mathbb{R})$.

The Geometry of Harmonic Analysis

January 25 (Sun) 11:00 ~ 12:00, Room 126

Abstract: In this talk, we will present recent joint work with Tobias Weich. When G is a real, reductive algebraic group and X is a homogeneous space for G with an invariant measure, we will completely describe the regular, semisimple asymptotics of the support of the Plancherel measure for $L^2(X)$. We will give concrete examples of this theorem, describing what can and cannot be deduced from this result.

The Geometry of Nontempered Characters

January 26 (Mon) 9:30 ~ 10:30, Room 122

Abstract: In this talk, we will survey the results of Rossmann and Schmid-Vilonen on geometric formulas for nontempered characters of reductive groups, and we will mention an old result of Barbasch-Vogan on the special case $A_q(\lambda)$. We will discuss what nontempered character formulas would be necessary to generalize the main formula of the second talk, and we will make conjectures