THE MOST CONTINUOUS PART OF THE PLANCHEREL DECOMPOSITION FOR A REAL SPHERICAL SPACE

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Abstract:

Let Z be a homogeneous space of a real reductive group G. The Plancherel decomposition of Z is the decomposition of the space $L^2(Z)$ of square integrable functions into a direct integral of irreducible unitary representations of G. In general this decomposition has a mixed discrete and continuous nature. The closed G-invariant subspace of $L^2(Z)$ that decomposes into the largest continuous families is called the most continuous part. In this talk I will report on joint work with Eitan Sayag in which we determine the Plancherel decomposition of the most continuous part of $L^2(Z)$ for real spherical homogeneous spaces Z.