A classical approach to the Maass forms on the Jacobi half-space

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Abstract

Let $G = G_2(\mathbf{R})$ be a real reduced Jacobi group of degree 2, i.e G is a semidirect product of $SL(2, \mathbf{R})$ and $\mathbf{R}^2$. We will study generalized Maass forms on the real four dimensional manifold $H_4 = G/SO(2)$ relative to the action of the modular group $G_2(\mathbf{Z})$. In the talk I will explain also the difference between spectral theories of automorphic functions on H_4 and on the four dimensional real hyperbolic space.