

Lifting of Cusp forms from \widetilde{SL}_2 to $GSpin(1, 4)$

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Abstract

We construct liftings of cuspidal automorphic forms from the metaplectic group \widetilde{SL}_2 to $GSpin(1, 4)$ using the Maaß Converse Theorem. In order to prove the non-vanishing of the lift we derive Waldspurger's formula for Fourier coefficients of half integer weight Maaß forms. We analyze the automorphic representation of the adelic spin group obtained from the lift and show that it is CAP to the Saito-Kurokawa lift from \widetilde{SL}_2 to $GSU_4(\mathbb{A})$.