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Eisenstein series and Transfer of Plancherel measures.

Given a p -adic field F and a ramified principal series representation of the two-fold cover of $SL(2, F)$, we are interested in its Plancherel measure which is related to the reducibility of the representation. To find out the measure, we consider $SL(2, \mathbb{A}_k)$ for some global field k that contains F at its p -adic place, we look into its Eisenstein series and deduce a product formula on the measures at all local places using the functional equation. A similar product formula can be deduced on $PGL(2, \mathbb{A}_k)$. The beauty is, one can compare those two product formulas and solve for the Plancherel measure of the ramified representation. Roughly speaking, we transfer the Plancherel measures from a linear group to a related covering group. (Received February 10, 2016)