

1060-11-100

Sheng-Chi Liu* (scliu@math.tamu.edu), Department of Math, Texas A&M University, College Station, TX 77843-3368. *Determination of $GL(3)$ cusp forms by central values of $GL(3) \times GL(2)$ L -functions.*

The converse theorems by Weil, Cogdell and Piatetski-Shapiro assert that the modularity of an L-series can be determined by infinitely many twisted L-series. Assuming the modularity of an L-function, we prove that the corresponding self-dual $GL(3)$ Hecke-Maass form is uniquely determined by the central values of $GL(2)$ twists of its L-function. This generalizes a theorem of Luo and Ramakrishnan to $GL(3)$. (Received March 24, 2010)