

CENTRAL L-VALUE OF HECKE CHARACTERS AND CM ABELIAN VARIETIES

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ABSTRACT

In this talk, we will explain some formula for the central L-value of Hecke characters in terms of theta functions (valued at CM points). We further explain how to use the formula and some analytic method to prove non-vanishing result of these L-values, and their arithmetic implications. Some of the work is recent joint work with Riad Masri.