

1147-11-375

Ameya Pitale* (apitale@ou.edu). *Special values of L-functions and congruence primes for Siegel modular forms.*

We present an integral representation of the standard L-function of a cuspidal automorphic representation of $\mathrm{GSp}(2n)$ with holomorphic discrete series at the archimedean places. We use this, in the genus two case, to obtain algebraicity of special values of the standard L-function of Siegel cusp forms twisted by characters. An interesting application is the algebraicity of twisted L-values of the symmetric fourth power L-function of elliptic cusp forms. We also use the algebraicity result, together with a detailed analysis of the arithmetic properties of the Eisenstein series involved, to obtain congruence prime results for Siegel cusp forms. This is joint work with Abhishek Saha and Ralf Schmidt. (Received January 21, 2019)