

Eisenstein series and zeros of zeta functions

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Abstract

Recently, Lin Weng introduced zeta functions $\xi_{\mathbb{Q}}^{G/P}(s)$ associated with pairs (G, P) of reductive algebraic groups defined over \mathbb{Q} and their maximal parabolic subgroups. They are related with periods of Langlands-Eisenstein series attached to (G, P) , and it is conjectured that they satisfy a standard functional equation and the corresponding Riemann hypothesis. The conjectural functional equation was proved by Yasushi Komori for general semi-simple G , and corresponding Riemann hypothesis was also established for ten concrete pairs (G, P) by several authors.

In this talk, we will talk about the result that zeta functions associated with (G, P) satisfy a “weak” Riemann hypothesis if G is semi-simple. This is a joint work with Yasushi Komori and Haseo Ki.