PHILADELPHIA AREA NUMBER THEORY SEMINAR

An Orthogonality Relation for $\text{GL}(4)$

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November 6, 2019 at 2:40 pm
Bryn Mawr College, Park 328
Tea and cookies in Park 361 at 2:20 pm

Abstract: An important component of the prime number theorem is the fact from elementary group theory that the characters of a finite group are orthogonal to each other. This fact can be interpreted as an orthogonality relation for $\text{GL}(1)$ automorphic forms, and in the case of $\text{GL}(2)$ and $\text{GL}(3)$ has a distinguished history and many applications including results about the distribution of Fourier coefficients of modular forms, and low lying zeros of $L$-functions. I will report on joint work with Dorian Goldfeld and Eric Stade in which we generalize these methods to $\text{GL}(4)$. 