

1116-11-1397 **Nathan Salazar***, nathan-salazar@uiowa.edu. *A hybrid bound for sums of Fourier coefficients of cusp forms against $e(\alpha n^\beta)$.*

In this talk we examine the sum $\sum \lambda_f(n)e(\alpha n^\beta)\phi(n/X)$, where λ_f are the coefficients of a Maass cusp form f , ϕ is a smooth function of compact support and $\alpha, \beta \in \mathbb{R}$. The bounds we obtain are interesting in that they are explicitly related to the Laplace eigenvalue $1/4 + k^2$ of f . Moreover, we obtain non-trivial bounds for values of $\beta > 1$, which appears to be new. (Received September 19, 2015)