

Philadelphia Area Number Theory Seminar

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Relative Trace Formula and L -functions for $GL(n+1) \times GL(n)$

Abstract: We will introduce a relative trace formula on $GL(n+1)$ weighted by cusp forms on $GL(n)$ over number fields. The spectral side is an average of Rankin-Selberg L -functions for $GL(n+1) \times GL(n)$ over the full spectrum, and the geometric side consists of Rankin-Selberg L -functions for $GL(n) \times GL(n)$, and certain explicit meromorphic functions. The formula yields new results towards central L -values for $GL(n+1) \times GL(n)$: the second moment evaluation, and simultaneous nonvanishing in the level aspect. Further applications to the subconvexity problem will be discussed if time permits.

Wednesday, February 1, 2023
3:5 PM

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Informal refreshments at 3PM { Talk at 3:30PM