Explicit Formulas via Trace Formulas

Abstract: The sum over zeroes of the Riemann zeta function in the explicit formula of A. Weil is a distribution on test functions, whose positivity is equivalent to the Riemann hypothesis. Previous work of Yoshida and Bombieri prove positivity for a functions with small support. In this talk I present directions toward proving positivity for functions with certain conditions, but that are independent of support. This method differs from that of previous work, using inner products of Eisenstein series, related to the spectral side of the Selberg trace formula.