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Some Results of Shifted Sums

Knowledge about shifted convolution sums can be used to bound different aspects of automorphic L-functions and thus make piecemeal progress toward the General Lindelöf Hypothesis. In joint work with Jeffrey Hoffstein, joint work with E. Mehmet Kıral, Chan Ieong Kuan and Li-Mei Lim, and my own thesis work, we investigated the application of a different sort of truncated Poincaré series, proposed by Hoffstein, in our study of particular shifted sums. These sums have in turn been used to obtain non-trivial asymptotics of triple sums of Fourier coefficients of classical holomorphic cusp forms, a Burgess-type bound for twisted automorphic L-functions, and a smoothed count of square discriminants with bounded coefficients.