Math/Phys seminar, Prof. Baiying Liu, Purdue University, BRNG B238

Thursday, Nov 1 1:30 pm - 2:30 pm

Title: Fourier coefficients attached to small automorphic representations of SLn(A).

Abstract: In this talk, I will discusss Fourier coefficients of automorphic forms attached to minimal or next-to-minimal automorphic representations of SLn(A). I will show that these Fourier coefficients are completely determined by certain highly degenerate Whittaker coefficients. I will also introduce an explicit formula for the Fourier expansion, analogously to the Piatetski-Shapiro–Shalika formula. In addition, I will derive expressions for Fourier coefficients associated to all maximal parabolic subgroups. These results have potential applications for scattering amplitudes in string theory. This is a joint work with Olof Ahlen, Henrik P. A. Gustafsson, Axel Kleinschmidt and Daniel Persson.