Speaker: Stephen Miller

Title: Exceptional and larger groups in analytic number theory

Abstract: I will discuss some recent work about topics related to analytic questions in the theory of automorphic forms on exceptional groups. In particular I will describe a construction of small automorphic representations motivated by joint work with Michael Green and Pierre Vanhove, in which their intuition from string theory gives new results on the unitary dual of split groups.

In addition to other applications to Fourier coefficients and dense packings of equal-sized spheres, I will then turn to the setting of infinite-dimensional Kac-Moody groups and describe some new convergence results for Eisenstein series there (joint work with Howard Garland and Manish Patnaik).