

Department of Mathematics, BGU

Algebraic Geometry and Number Theory

On Wednesday, April ,15 2015

At 15:00 – 16:30

In Math 101-

Avner Segal (BGU)

will talk about

A Family of New-way Integrals for the Standard L-function of Cuspidal Representations of the Exceptional Group of Type G2

Abstract: In a joint work with N. Gurevich we have constructed a family of Rankin-Selberg integrals representing the standard twisted L-function of a cuspidal representation of the exceptional group of type G2. This integral representations use a degenerate Eisenstein series on the family of quasi-split forms of Spin8 associated to an induction from a character on the Heisenberg parabolic subgroup. This integral representations are unusual in the sense that they unfold with a non-unique model. A priori this integral is not factorizable but using remarkable machinery proposed by I. Piatetski-Shapiro and S. Rallis we prove that in fact the integral does factor. As the local generating function of the local L-factor was unknown to us, we used the theory of C^* -algebras in order to

approximate it and perform the unramified computation. If time permits, I will discuss the poles of the relevant Eisenstein series and some applications to the theory of CAP representations of G_2 .

Please Note the Unusual Time!