

1157-11-585

**Rongqing Ye\*** (ye271@purdue.edu) and **Elad Zelingher**. *Exterior square gamma factors for cuspidal representations of  $GL_n$ : finite field analogs and level zero representations.*

We follow Jacquet-Shalika, Matringe and Cogdell-Matringe to define exterior square gamma factors for irreducible cuspidal representations of  $GL_n(\mathbb{F}_q)$ . These exterior square gamma factors are expressed in terms of Bessel functions, or in terms of the regular characters associated with the cuspidal representations. We also relate our exterior square gamma factors over finite fields to those over local fields through level zero representations. (Received February 04, 2020)