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**Kwangho Choi\*** (kchoiy@gmail.com), 1245 Lincoln Drive, Mail Code 4408, Carbondale, IL 62901. *On Multiplicity in Restriction for  $SL(m, D)$ .*

The multiplicity of an irreducible representation, when restricted to a closed subgroup containing the derived group, extracts arithmetic properties from the given representation. In this talk, we shall focus on the case of discrete series representations of  $GL(m, D)$  when restricted to  $SL(m, D)$ , where  $D$  is a central division algebra of dimension  $d^2$  over a  $p$ -adic field  $F$  of characteristic 0. We will formulate the multiplicity by means of the quotient of the sizes of  $L$ -packets of  $SL(md, F)$  and  $SL(m, D)$ . Its bounds and various numerical aspects will be discussed. We will further talk about the multiplicity for other groups. (Received August 06, 2015)