

Meeting: 1001, Evanston, Illinois, SS 5A, Special Session on Codes and Applications

1001-94-373 **Jay A. Wood*** (jay.wood@wmich.edu), Western Michigan University, Office of the Provost, 1903 W. Michigan Ave., Kalamazoo, MI 49008-5204. *Highly symmetric weight functions on matrix rings.*

This talk will discuss weight functions on the matrix rings $M_n(F_q)$ that (1) have maximal symmetry groups $GL_n(F_q)$ and (2) satisfy the extension theorem of MacWilliams. Such weight functions can be described completely by n explicit linear inequalities. (Received August 31, 2004)