

Properties of New Generalized R-Norm Information Measure and Its Bounds

Safeena Peerzada¹, Saima Manzoor Sofi² and M.A.K. Baig³

^{1,2,3}*P.G Department of Statistics University of Kashmir, Srinagar-190006*

E-mail: sapezad@gmail.com¹, saimam.stsc@gmail.com², baigmak@gmail.com³

Abstract—In this paper, we consider a new R-Norm information measure and also discuss its important properties. Some of the particular cases are also studied and numerically solved by using R-Software. Also, average code-word length is given and related bounds are derived for the given information measure. We prove the validity of the coding theorems for discrete data by using Shanon-Fano and Huffman coding schemes. Furthermore, the nature of the new generalized R-norm information measure and its respective code-word length is observed at changing values of parameters α , β and R .