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Mehdi Razzaghi* (razzaghi@bloomu.edu), Department of Mathematics, Bloomsburg University, Bloomsburg, PA 17815. *Poisson Approximation of the Poisson Lindley Distribution.*

The Poisson-Lindley distribution arises from the Poisson model by compounding it with the Lindley distribution and it is used to model count data. The distribution is known to have some common properties with the negative binomial distribution and to provide good approximation to the negative binomial and the Hermite distributions. In this paper we consider the Poisson approximation to the Poisson-Lindley distribution. Using the w-function along with the Stein identity we derive an upper bound for the total variation distance of this approximation. (Received September 15, 2010)