# Bivariate Extension of Discrete Cumulative Residual Entropy

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**Abstract**. Recently, a new maesure of uncertainly for continuous distribution has been introduced by Rao et al.(2004) which is called Cumulative residual entropy(CRE) and the discrete version of CRE has been difined by Baratpour and Bami (2012). The present paper addresses the question of extending the defenition of CRE to bivariate setup in discret case and study its propertiese.We show that the proposed measure is invariance under increasig one-to-one transformation and has additive property. Finally, the bivariate version of the hazard rate, mean residual life and cumulative residual entropy are obtained for bivariate geometric distribution.

**Keywords**. Distribution Entropy, Cumulative residual entropy, Bivariate hazard rate, Bivariate mean residual life, Bivariate cumulative residual life, Bivariate geometric distribution.