

A new generalization of Geometric Distribution - its properties and applications

Abstract

A new two parameter $q(0 < q < 1)$ and $\alpha(> 0)$ generalization of the geometric distribution with is proposed by employing the quadratic transmutation techniques of Shaw and Buckley (2007). Various distributional, reliability and stochastic ordering properties, methods for parameter estimation investigated. Relative performance of the estimation is evaluated through simulation. Statistical power analysis is carried out employing simulation. Applications of the proposed distribution in modeling different count data form real life is explored with some data fitting experiments and count regression model.

Brief CV:

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