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Archimedean Copula Generators Based on Beta Distribution: Case Study in Property and Casualty (Car) Insurance Sector

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Abstract

The purpose of this study is to obtain new Archimedean copula generators by using Beta distribution function and to investigate dependence characteristics of these generators. In the study, two non-strict generator functions were obtained via the beta distribution function and then strict generators were obtained by applying composite method to these generator functions. The new copula families were applied on the property and casualty insurance data by taking into the consideration of the Beta distribution characteristic and the obtained results have been evaluated .

Keywords: Copulas, Archimedean Copulas, Beta Distribution Copulas, Generating Function, Composite of Functions, Traffic Insurance, Premium and Damage.