Stochastic order related to multivariate normal distributions

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ABSTRACT
We consider the stochastic order of Gini indexes for multivariate normal risks. Gini index has been extensively studied in fields such as economics and insurance. Brazauskas et al. [Insurance: Mathematics and Econimics 2017] studied a model for Gini indexes for multivariate normal risks and provided a conjecture about the stochastic order of the indexes. In this presentation, a counterexample is provided to show that the conjecture can not be true. Then it is shown that the conjecture holds under a stronger assumption.