

This thesis focuses on Kendall's tau as a method for measuring association between two discrete random variables. The first part motivates and defines Kendall's tau, introduces the concepts of concordance, discordance, and copula, and demonstrates computation for continuous distributions. The second part investigates simplifying computations for discrete distributions through continuous extension and proves that the measure of association remains preserved after this extension. In the final chapter, unbiased estimates of Kendall's tau are presented and used to compare estimation results between discrete random variables and their continuous extensions.