

# Chatterjee's rank correlation: what is new?

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In this talk, the speaker will provide an overview of the recent progress made in exploring Sourav Chatterjee's newly introduced rank correlation. The objective is to elaborate on its practical utility and present several new findings pertaining to (a) the asymptotic normality and limiting variance of Chatterjee's rank correlation, (b) its statistical efficiency for testing independence, and (c) the issue of its bootstrap inconsistency. Notably, the presentation will reveal that Chatterjee's rank correlation is root-n consistent, asymptotically normal, but bootstrap inconsistent - a rare phenomenon in the literature.