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*Characterization of the Bias in Spearman's Rho under Mixture Models*. Preliminary report.

Spearman's Rho is a measure of correlation between the rankings of two variables. In this study, we demonstrate that the bias in Spearman's Rho under a mixture model is a cubic function of the mixing proportion, where the coefficients are functions related to the two distributions being mixed. We further provide a characterization of the bias by examining case-by-case conditions on the contaminating component of the mixture model. (Received November 27, 2018)