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Summary statistics for inhomogeneous marked point processes

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Abstract We propose new summary statistics for intensity-reweighted moment stationary marked point processes with particular emphasis on discrete marks. The new statistics are based on the n-point correlation functions and reduce to cross J- and D-functions when stationarity holds. We explore the relationships between the various functions and discuss their explicit forms under specific model assumptions. We derive ratio-unbiased minus sampling estimators for our statistics and illustrate their use on a data set of wildfires.

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