Title: Weighted U–statistics for absolutely regular processes with applications to time series and other dependent sequences

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U-statistics is a classical tool in nonparametric inference, commonly used to establish large sample properties of various estimators. We focus on weighted U-statistics for absolutely regular processes and discuss different aspects of this type of estimator, such as data dependency level, type of weights, and kernel degeneracy. We prove a central limit theorem for weighted U-statistics with non-degenerate kernels, and discuss connections of this problem with V-statistics and the case where kernels are degenerate. An application illustrates how the proposed methods can be used in related problems in the literature.