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An Edgeworth expansion for U-statistics with weakly dependent observations. (English)

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Stat. Sin. 6, No. 1, 171-186 (1996).

Summary: Under mild conditions, an Edgeworth expansion with remainder $o(N^{-1/2})$ is established for a U-statistic with a kernel h of degree two using weakly dependent observations. The case of verifying these conditions is discussed in the context of three rather natural examples.

MSC:

62E20 Asymptotic distribution theory in statistics
60G15 Gaussian processes
62M99 Inference from stochastic processes
60G10 Stationary stochastic processes

Keywords:

weak dependence; homogeneous Markov chains; stationary Gaussian processes; U-statistic; Edgeworth expansion; weakly dependent observations

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