

INVARIANCE PRINCIPLE FOR CANONICAL U - AND V -STATISTICS BASED ON DEPENDENT OBSERVATIONS

I. S. Borisov and V. A. Zhechev

We prove the functional limit theorem, i.e., the invariance principle, for sequences of normalized U - and V -statistics of arbitrary orders with canonical kernels, defined on samples of growing size from a stationary sequence of random variables under the α - or φ -mixing conditions. The corresponding limit stochastic processes are described as polynomial forms of a sequence of dependent Wiener processes with a known covariance.

Key words and phrases: U -statistic, V -statistic, invariance principle, dependent observations, α -mixing, φ -mixing.

Borisov Igor' Semenovich

Sobolev Institute of Mathematics,
Novosibirsk, 630090 Russia;
Novosibirsk State University,
Novosibirsk, 630090 Russia.
E-mail: sibam@math.nsc.ru

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Zhechev Vasilij Alexandrovich

Novosibirsk State University,
Novosibirsk, 630090 Russia.
E-mail: v.zhechev@gmail.ru

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