

ON ESTIMATION OF PARAMETERS OF ORNSTEIN-UHLENBECK PROCESS

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The paper deals with the Ornstein-Uhlenbeck process, which is given by the stochastic differential equation

$$dX_t = A(t)X_t dt + \sigma(t)dw_t,$$

in infinite dimensional Hilbert space. The problem of statistical estimation of shift and volatility parameters is studied. We are using an infinite dimensional variant of maximal likelihood estimation and the minimal quadrate method. The property of consistency and asymptotical normality are shown. This investigation is based on the paper [1].

References

1. Babilua P., Nadaraya E., Sokhadze G. On Limit Properties of Maximal Likelihood Estimators in a Hilbert Space. Georgian Mathematical Journal. Vol. 22, Issue 2. 2015.p. 171-178.