Kligene, N.; **Tel'ksnis, L.**

Methods of detecting instants of change of random process properties. (English. Russian original) Zbl 0541.93063

Autom. Remote Control 44, 1241-1283 (1983); translation from Avtom. Telemekh. 1983, No. 10, 5-56 (1983).

Summary: Studies published between 1954 and 1980 concerning the detection of changes in the statistical properties of correlated random processes are surveyed and analyzed. The cases when the random processes are univariate and multivariate, both in continuous and in discrete time, are considered. Procedures for detection of property changes, using process realizations of either fixed or variable length, are described. Methods of estimating the accuracy of the decisions are discussed. The methods of finding the changes in random process properties are compared.

MSC:

93E10	Estimation and detection in stochastic control theory
60G35	Signal detection and filtering (aspects of stochastic processes)
93-02	Research exposition (monographs, survey articles) pertaining to systems and control theory
62H12	Estimation in multivariate analysis
62L12	Sequential estimation
93C55	Discrete-time control/observation systems
93C99	Model systems in control theory

Keywords:

detection of changes; correlated random processes