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Prediction of random sequences and universal coding. (English. Russian original)

Zbl 0666.94009

Probl. Inf. Transm. 24, No. 2, 87-96 (1988); translation from Probl. Peredachi Inf. 24, No. 2, 3-14 (1988).

The prediction is represented as a set of probability estimates of possible continuations of the stochastic process. The prediction problem is solved in two settings: 1) given that the sequence is computable or 2) given that the sequence is stationary. In mathematical terms, the problem is related to coding theory and its solution accordingly relies on known information-theoretical results.

MSC:

94A99	Communication, information
94A17	Measures of information, entropy
60G25	Prediction theory (aspects of stochastic processes)
60G35	Signal detection and filtering (aspects of stochastic processes)
62M20	Inference from stochastic processes and prediction

Keywords:

prediction problem; coding theory