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PROPERTIES OF NONPARAMETRIC ESTIMATION OF MULTIVARIATE SOLVING FUNCTION IN PATTERN RECOGNITION ALGORITHM CORRESPONDING TO THE CRITERION OF MAXIMUM A POSTERIORI PROBABILITY

The asymptotic properties of the nonparametric estimation of the multidimensional separating surface equation in the synthesis of the decision function corresponding to the maximum criterion of a posteriori probability are investigated. The two-alternative problem of pattern recognition is considered. Dependences of the approximation properties of the decision function on the a priori information and classification conditions are determined. The results of computational experiments are presented.

Keywords: nonparametric statistics, pattern recognition, separating surface equation, criterion of maximum a posteriori probability, asymptotic properties, blur coefficient.

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