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The Sufficient Conditions of Local Controllability for Linear Systems with Random Parameters

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Abstract: This paper is concerned with the problem of local controllability for linear nonstationary systems with random parameters. In differ of well-known problem of controllability for the determinated systems, for systems with random parameters we must construct a non-predicting control when we use the information about system only before the current moment. We obtain the sufficient conditions of non-predicting controllability and estimation of the probability that the given system is a locally controllable on the fixed time segment. The algorithm of construction of the non-predicting control is developed.

Keywords: *Local controllability; non-predicting control; controllability set; stationary stochastic process.*

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