

# On stochastic stability of the integral manifold under permanently acting random perturbations

Marat Tleubergenov <sup>1</sup>, Gulmira Vassilina <sup>2</sup>

<sup>1</sup> *Institute of Mathematics and Mathematical Modeling, Kazakhstan*

*E-mail: marat207@mail.ru*

<sup>2</sup> *Al-Farabi Kazakh National University, Kazakhstan*

*E-mail: v\_gulmira@mail.ru*

**Abstract:** In this paper the stability in probability under an action of permanently acting random perturbations of the analytically given integral manifold is investigated. On the one hand these results generalize the theorems of stability under an action of permanently acting perturbations of the invariant set [1] in the class of ordinary differential equations. On the other hand they extend the theorems of stability under permanently acting perturbations of the unperturbed motion [2] to the case of invariant sets. To proof these theorems on stochastic stability under an action of permanently acting random perturbations of the analytically given invariant set we used the theorems in [3].

**Keywords:** integral manifold, stochastic stability

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## REFERENCES

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