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ON STABILITY AND COMPARISON THEOREMS FOR SYSTEMS OF STOCHASTIC DIFFERENTIAL EQUATIONS

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We prove comparison theorems for stochastic differential equations (briefly, SDE) with respect to a standard multidimensional Wiener process as well as for components of systems of SDE with respect to a multidimensional Wiener process. The obtained results are applied to the study of the stability with probability 1 of the perturbed solutions to the SDE.

Key words and phrases: stability with probability 1, stochastic differential equation, comparison theorem, multidimensional Wiener process, Itô integral, Stratonovich integral.

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