ON DIFFERENTIAL EQUATIONS AND INCLUSIONS WITH MEAN DERIVATIVES ON A COMPACT MANIFOLD

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Abstract

We introduce and investigate a new sort of stochastic differential inclusions on manifolds, given in terms of mean derivatives of a stochastic process, introduced by Nelson for the needs of the so called stochastic mechanics. This class of stochastic inclusions is ideologically the closest one to ordinary differential inclusions. For inclusions with forward mean derivatives on manifolds we prove some results on the existence of solutions.

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References


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