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Existence and uniqueness theorem for uncertain differential equations. (English)

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Summary: Canonical process is a Lipschitz continuous uncertain process with stationary and independent increments, and uncertain differential equation is a type of differential equations driven by canonical process. This paper presents some methods to solve linear uncertain differential equations, and proves an existence and uniqueness theorem of solution for uncertain differential equation under Lipschitz condition and linear growth condition.

MSC:

34A07 Fuzzy ordinary differential equations

Cited in 140 Documents

Keywords:

uncertain process; differential equation; existence and uniqueness theorem

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