عنوان مقاله:

Strong approximation for It^o stochastic di erential equations

محل انتشار:

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نویسنده:

m namjoo - *Department of Mathematics, School of Mathematical Sciences, Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran.*

خلاصه مقاله:

In this paper, a class of semi-implicit two-stage stochastic Runge-Kutta methods (SRKs) of strong global order one, with minimum principal error constants are given. These methods are applied to solve Itô stochastic differential equations (SDEs) with a Wiener process. The efficiency of this method with respect to explicit two-stage Itô Runge-Kutta methods (IRKs), It method, Milstien method, semi-implicit and implicit two-stage Stratonovich Runge-Kutta methods are demonstrated by presenting some numerical results.

کلمات کلیدی:

Stochastic di erential equations; Strong approximation; Runge-Kutta methods

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