Convergence of Euler-Maruyama Scheme for SDEs with Irregular Coefficients

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KEY WORDS: Convergence rate, Euler-Maruyama scheme, irregular coefficient, Zvonkin transformation

MATHEMATICAL SUBJECT CLASSIFICATION: 60H35, 41A25, 60C30

Abstract: In this talk, we consider the Euler-Maruyama approximation for SDEs with irregular coefficients. This talk contains three parts. More precisely, the first part is concerned with convergence of Euler-Maruyama scheme for SDEs with bounded Dini-Continuous drift, the second part is devoted to convergence of Euler-Maruyama scheme for SDEs with unbounded Dini-Continuous drift, and the last part focuses on the issue for SDEs in Hilbert space with multiplicative noises and Dini continuous drifts.

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