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10996. *Numerical methods for stochastic differential equations.*

Stochastic differential equations (SDEs) are used in a variety of applications including population dynamics and finance. With the advances in computing technology over the last several decades, there has been a growing interest in the study of numerical methods for SDEs. In this talk we look at Itô-Taylor schemes, and how they can be applied to stochastic differential equations where the driving stochastic process has jumps. (Received September 22, 2011)