STOCHASTIC DIFFERENTIAL EQUATIONS DRIVEN BY G-BROWNIAN MOTION WITH REFLECTING BOUNDARY CONDITIONS

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ABSTRACT. In this paper, we introduce the idea of integral with respect to increasing processes under the framework of G-expectation and give the proof of extended G-Itô's formula. Moreover, we study the existence and uniqueness of solutions to the scalar valued stochastic differential equations driven by G-Brownian motion with reflecting boundary conditions (RGSDEs), and give a comparison theorem.

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