ALMOST SURELY STABILITY OF DELAY HYBRID STOCHASTIC SYSTEM DRIVEN BY LÉVY NOISE

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Abstract. This study is devoted to investigate the almost sure stability of a class of nonlinear delay hybrid stochastic system driven by Lévy noise. We derive that the system has a unique global solution. Then, we discuss the almost sure stability of the stochastic system. A numerical example is provided to verify the results.

Mathematics subject classification (2020): 93D05, 93D20.

Keywords and phrases: Nonlinear stochastic delay system, unique global solution, Markovian switching, Lévy noise, almost surely stability.

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