ERGODICITY OF STOCHASTIC DIFFERENTIAL EQUATIONS WITH JUMPS AND SINGULAR COEFFICIENTS

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Abstract: We show the strong well-posedness of SDEs driven by general multiplicative Lévy noises with Sobolev diffusion and jump coefficients and integrable drift. Moreover, we also study the strong Feller property, irreducibility as well as the exponential ergodicity of the corresponding semigroup when the coefficients are time-independent and singular dissipative. In particular, the large jump is allowed in the equation. This is a joint work with Xicheng Zhang.