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A NOTE ON EXISTENCE OF GLOBAL SOLUTIONS AND INVARIANT MEASURES FOR JUMP SDES WITH LOCALLY ONE-SIDED LIPSCHITZ DRIFT

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Abstract. We extend some methods developed by Albeverio, Brzeźniak and Wu and we show how to apply them in order to prove existence of global strong solutions of stochastic differential equations with jumps, under a local one-sided Lipschitz condition on the drift (also known as a monotonicity condition) and a local Lipschitz condition on the diffusion and jump coefficients, while an additional global one-sided linear growth assumption is satisfied. Then we use these methods to prove existence of invariant measures for a broad class of such equations.

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Key words and phrases: stochastic differential equations, invariant measures, jump processes.

THE FULL TEXT IS AVAILABLE HERE

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