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ON REFLECTED BSDES WITH JUMPS AND DEFAULT TIME

Communication Info

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Abstract

We introduce a new class of reflected backward stochastic differential equations with default times and irregular obstacles, where the publicly available information is generated by a Brownian motion and an independent integer-valued random measure. Under a stochastic Lipschitz condition on the driver, we establish the well-posedness of the problem and discuss applications to optimal control and mathematical finance. This framework extends existing market models studied in [1–6] by allowing for a richer class of public information that incorporates jump components.

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