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Càdlàg rough differential equations with reflecting barrier

Stochastic differential equations with reflecting barriers or boundary conditions have a long history and appear in many applications. In this talk, we contribute to the recently emerged pathwise approaches to this class of differential equations. More precisely, we investigate rough differential equations with a time-dependent reflecting lower barrier, where both the driving (rough) path and the barrier itself may have jumps. Assuming the driving signals allow for Young integration, we provide existence, uniqueness and stability results. When the driving signal is a càdlàg rough path, we establish existence to general reflected rough differential equations, as well as uniqueness in the one-dimensional case.
