Forward Brownian Motion

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Abstract

We introduce the concept of a Forward Brownian motion (FBM), i.e. a realvalued process X indexed by the real numbers for which there exists a sequence of random times $S_n \to -\infty$ such that $X_{S_n+t} - X_{S_n}$, $t \ge 0$ is standard Brownian motion for each n. We investigate a number of properties of such processes. In particular we ask how an FBM behaves as $t \to -\infty$. This is joint work with Krzysztof Burdzy (Seattle).