

BARRIER CROSSING INDUCED BY FRACTIONAL GAUSSIAN NOISE

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S u m m a r y

A problem of the rate of escape of a particle under the influence of the external fractional Gaussian noise is studied by using the method of numerical integration of an overdamped Langevin equation. Considering a truncated harmonic potential, the dependences of the mean escape time on the noise intensity and Hurst index are evaluated, together with the probability density functions for the escape times. It is found that, like the corresponding classical problem with white Gaussian noise, they both obey an exponential law.