

Mean First Passage Time for System with Fluctuating Potential Barrier and Coupled Noise

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Abstract: In this paper we study the mean first passage time (MFPT) over a fluctuation potential barrier driven by a coupled noise. It is shown that the MFPT over the fluctuation potential barrier displays resonant activations as the function of the flipping rate of the fluctuation potential barrier, and as the function of the dichotomous noise transition rate.

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Key words: mean first passage time, resonant activation, coupled noise

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