ENERGY OF TAUT STRINGS ACCOMPANYING RANDOM WALK

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Abstract. We consider the kinetic energy of the taut strings accompanying trajectories of a Wiener process and a random walk. Under certain assumptions on the band width, it is shown that the energy of a taut string accompanying a random walk within a band satisfies the same strong law of large numbers as proved earlier for a Wiener process and a fixed band width. New results for Wiener processes are also obtained.

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