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Convergence of random step lines to Ornstein-Uhlenbeck-type processes

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Abstract

The paper deals with random step-line processes defined by sums of independent identically distributed random variables multiplied by independent indicators. These processes describe some models in which random variables are replaced with other ones. We prove the convergence in distribution of such processes to the weighted Ornstein-Uhlenbeck process. ©1998 Plenum Publishing Corporation.