

ALMOST SURE LIMIT THEOREMS FOR SEMI-SELSIMILAR
PROCESSES

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Abstract: An integral analogue of the almost sure limit theorem is presented for semi-selfsimilar processes. In the theorem, instead of a sequence of random elements, a continuous time random process is involved; moreover, instead of the logarithmical average, the integral of delta-measures is considered. Then the theorem is applied to obtain almost sure limit theorems for semistable processes. Discrete versions of the above theorems are proved. In particular, the almost sure functional limit theorem is obtained for semistable random variables.

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