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**Major, P.**

**Almost sure functional limit theorems. II: The case of independent random variables.** (English) Zbl 0993.60020

Stud. Sci. Math. Hung. 36, No. 1-2, 231-273 (2000).

In the first part of this paper [ibid. 34, No. 1-3, 273-304 (1998; Zbl 0921.60033)] general almost sure functional limit theorems (ASFLT) were proved for self-similar processes. These results are used to obtain almost sure versions of some functional limit theorems in $D([0,1])$. Theorem 1 states that for the step line process constructed from the partial sums of independent random variables satisfying the Lindeberg condition the ASFLT holds with Wiener limit measure. In Theorem 3 such conditions are imposed under which the normalized partial sums of independent identically distributed random variables converge in distribution to a stable law. It is proved that these conditions imply the ASFLT with the distribution of a stable process as the limit measure.

Reviewer: I.Fazekas (Debrecen)

**MSC:**

60F05 Central limit and other weak theorems
28D05 Measure-preserving transformations
60F17 Functional limit theorems; invariance principles

Cited in **2** Documents

**Keywords:**

almost sure invariance principle; central limit theorem; stable laws

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