ON THE RANDOM FUNCTIONAL CENTRAL LIMIT THEOREMS WITH ALMOST SURE CONVERGENCE

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Abstract: In this paper we present functional random-sum central limit theorems with almost sure convergence for independent non-identically distributed random variables. We consider the case where the summation random indices and partial sums are independent. In the past decade several authors have investigated the almost sure functional central limit theorems and related "logarithmic" limit theorems for partial sums of independent random variables. We extend this theory to almost sure versions of the functional random-sum central limit theorems.

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