

THE LIMIT LAW OF THE ITERATED LOGARITHM

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KEY WORDS: The limit law of the iterated logarithm, Brownian motion, Ornstein-Uhlenbeck process.

MATHEMATICAL SUBJECT CLASSIFICATION: 60F15, 60G10, 60G15, 60G50.

Abstract:

For the partial sum $\{S_n\}$ of an i.i.d. sequence with zero mean and unit variance, it is pointed out that

$$\lim_{n \rightarrow \infty} (2 \log \log n)^{-1/2} \max_{1 \leq k \leq n} \frac{S_k}{\sqrt{k}} = 1 \quad a.s.$$

References

- [1] Chen, X. The limit law of the iterated logarithm. *J. Theor. Probab.*, **to appear**.