

**SLOW CONVERGENCE TO NORMALITY:
AN EDGEWORTH EXPANSION WITHOUT THIRD MOMENT**

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Abstract: Let F be a non-lattice distribution function which lies in the domain of attraction of a normal distribution. Exact uniform convergence rates are obtained for the convergence of the normalized partial sums of i.i.d. random variables with distribution F . The assumptions are

$$1 - F(x) + F(-x) \in RV_{\varrho-2} \quad (-1 \leq \varrho \leq 0)$$

and

$$(1 - F(x))/(1 - F(x) + F(-x)) \rightarrow p \in [0, 1] \quad (\text{as } x \rightarrow \infty).$$

For $\varrho = -1$ somewhat weaker conditions are sufficient.

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