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APPROXIMATION BY PENULTIMATE STABLE LAWS

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Abstract: In certain cases partial sums of i.i.d. random variables with finite variance are better approximated by a sequence of stable distributions with indices $\alpha_n \rightarrow 2$ than by a normal distribution. We discuss when this happens and how much the convergence rate can be improved by using penultimate approximations. Similar results are valid for other stable distributions.

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