This derivation of Theorem 2 from Theorem 1 was shown to us by C. T. C. Wall.

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ON THE NORM OF STABLE MEASURES[1]

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1. Limits of convolution powers and stable measures. Let $M(R)$ denote the Banach algebra of all complex-valued regular finite measures defined on the Borel sets of the real line R, where multiplication is defined by convolution, and

$$\|\mu\| = \sup \sum |\mu(R_i)|,$$

the supremum being taken over all finite collections of pairwise disjoint sets R_i whose union is R. Let $B(R)$ be the set of all Fourier transforms of measures in $M(R)$.

In [1], we characterized all possible limits

$$\lim_{n\to\infty} (\hat{\nu}(t/B_n))^n \exp(itA_n) = \hat{\mu}(t) \quad \text{for all } t \neq 0,$$

where $A_n \in R$, $B_n > 0$, $\hat{\nu}$, $\hat{\mu} \in B(R)$. This is a generalization of an old problem in probability theory (see e.g. [4]). One can show that a measure μ appears as a limit if and only if it is *stable*, i.e. has the following property: For all $a>0$, $b>0$ there exist $c>0$ and $\gamma \in R$ such that

$$\hat{\mu}(at)\hat{\mu}(bt) = \hat{\mu}(ct) \exp(i\gamma t) \quad \text{for all } t \in R. \tag{1}$$

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