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ON FREE INFINITE DIVISIBILITY FOR CLASSICAL MEIXNER DISTRIBUTIONS

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Abstract: We prove that symmetric Meixner distributions, whose probability densities are proportional to $|\Gamma(t+ix)|^2$, are freely infinitely divisible for $0 < t \leq \frac{1}{2}$. The case $t = \frac{1}{2}$ corresponds to the law of Lévy's stochastic area whose probability density is $1/\cosh(\pi x)$. A logistic distribution, whose probability density is proportional to $1/\cosh^2(\pi x)$, is also freely infinitely divisible.

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