Heikki J. Tikanmäki: Edgeworth expansion for the one dimensional distribution of a Lévy process; Helsinki University of Technology, Institute of Mathematics, Research Reports A533 (2007).

Abstract: The one dimensional distribution of a Lévy process is not known in general even though its characteristic function is given by the famous Lévy-Khinchine theorem. This article gives an exact series representation for the one dimensional distribution of a Lévy process satisfying certain moment conditions. Moreover, this work clarifies an old result by Cramér on Edgeworth expansions for the distribution functions of Lévy processes.

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