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GENERALIZED T-TRANSFORMATIONS OF PROBABILITY MEASURES AND DEFORMED CONVOLUTIONS

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Abstract: In this paper, the generalized (two-parameterized) t-transformations on probability measures are introduced, in which the t-transformation of Bożejko and Wysoczański can be obtained as the special case, and the associated deformed convolutions are also investigated. We see that the generalized t-deformed free convolution can be realized as the conditionally free convolution of Bożejko, Leinert, and Speicher. We also study another special case of the generalized t-deformed free convolution, which is called the τ-*free convolution*, that gives an interpolation between the free and the Fermi convolutions.

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