

On the Laplace integral representation of multivariate Mittag-Leffler functions in anomalous relaxation

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Abstract

Copyright © 2016 John Wiley & Sons, Ltd. In the given paper, a special method of representation of the Mittag-Leffler functions and their multivariate generalizations in the form of the Laplace integrals is suggested. The method is based on the usage of the generalized multiplication Efros theorem. The possibilities of a new method are demonstrated on derivation of the integral representations for relaxation functions used in the anomalous dielectric relaxation in time domain. Copyright © 2016 John Wiley & Sons, Ltd.

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Keywords

33F05, anomalous dielectric relaxation, fractional kinetics, generalized multiplication efros theorem, laplace transform, Mittag-Leffler functions, subclass 65Z05