

ON GENERALIZED LAGUERRE TRANSFORM

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Abstract

The work in this paper consist of an extension of Laguerre transform of functions of two variables [2] to Generalized Laguerre transform of functions of two variables with the use of Zemanian's technique related to the transformation arising from orthonormal series expansions. For this we have defined testing function and generalized function spaces, also defined the differentiation of generalized function in $A_0(I)$. Inversion formula is obtained. Finally discuss use of differential operator for solving certain type of differential equations.

Key Words and Phrases : Generalized integral transform, Laguerre transform of functions of two variables.

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