REPRESENTATION OF LIE ALGEBRA T_3 AND 2-INDEX 3-VARIABLE TRICOMI FUNCTIONS

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Abstract

C. Cesarano [C. Cesarano, Generalizations on Humbert polynomials and functions, Cogent Mathematics 4(1) (2017), 1-10] defined the 2-index Tricomi functions $C_{m,n}(x)$. We define 2-index 3-variable Tricomi functions, and using them, we give a representation of the 3-dimensional Lie algebra T_3 [Willard Miller, Jr., Lie theory and special functions, Mathematics in Science and Engineering, Vol. 43, Academic Press, New York and London, 1968].