Some Theorem On Fractional Integeration Of Multivariable H-Function And Their Applications

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Abstract:

The main object of the present paper is to derive a number of key formulas for the fractional integration of the multivariable Hfunction (which is defined by a multiple contour integral of Mellin-Barnes type). Each of the general Eulerian integral formulas (obtained in this paper) are shown to yield interesting new results for various families of generalized hypergeometric functions of several variables. Some of these applications of the key formulas would provide potentially useful generalizations of known results in the theory of fractional calculus.