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Generalized fractional Hankel type transform

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Abstract

In this paper the fractional generalization of generalized Hankel type transform is studied which is the generalization of generalized Hankel type transform given by Zemanian [6]. Fractional Hankel type transform in the generalized sense is introduced. Some properties of the kernel are discussed and inversion formula for fractional Hankel type transform is proved. Generalized operational relations are derived that can be used to solve certain classes of ordinary and partial differential equations. Finally the values of fractional Hankel type transform are obtained for some special functions.

KEY WORDS:

Fractional transform, Fractional Hankel type transform, Inversion formula, Generalized operational relations.

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