

HANKEL TYPE TRANSFORMABLE DISTRIBUTION SPACES AND ITS CHARACTERIZATION

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ABSTRACT

In this paper, we have established new properties of distribution spaces of slow growth and of exponential growth that are Hankel transformable. We have also obtained representations of those generalized functions as initial values of solutions of the Kepinski type equation. Further we have analyzed Hankel positive definite functions and generalized functions. Finally characterizations of Hankel transformable distributions having bounded above or bounded below support on $(0, \infty)$ are obtained.

Keywords: Hankel type transformation, Kepinski type equation, distributions, positive definite, Hankel approximate identity.

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