

On the generalized Hartley-Hilbert and Fourier-Hilbert transforms

ABSTRACT

In this paper, we discuss Hartley-Hilbert and Fourier-Hilbert transforms on a certain class of generalized functions. The extended transforms considered in this article are shown to be well-defined, one-to-one, linear and continuous mappings with respect to δ and Δ convergence. Certain theorems are also established.

Keyword: Integral transforms; Hilbert transform; Hartley transform; Fourier transform; Hartley-Hilbert transform; Boehmian space.