

ULTRA BOEHMIANS AND THEIR FOURIER TRANSFORMS

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Abstract

In this paper we construct a space of Boehmians which properly contains the tempered Boehmians and we extend the theory of the Fourier transform on this new Boehmian space. Indeed it is shown that by taking the above space as a dual space of a suitable testing function space, it is possible to extend the theory of the Fourier transform on a Boehmian space which is properly larger than the usual Boehmian spaces on which the theory of the Fourier transform has been defined.

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