On Conformable Double Sumudu Transform

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Abstract

In the current work, we have introduced a new deformation and generalization of the Sumudu transform called the Conformable Double Sumudu Transform (CDST), which can be applied to solve conformable fractional partial differential equations (CF-PDEs). Further, we proposed some fundamental properties of the (CDST). To show the efficiency, applicability, high accuracy, and simplicity of the proposed transform, we apply this new transform to solve a wide class of linear fractional partial differential equations in the sense of Conformable fractional derivative (CFD).

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