DIGITAL COMPUTATION OF THE FRACTIONAL MELLIN TRANSFORM (WedAmOR10)

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✱ Abstract :

In this paper, we develop an algorithm to compute the fractional Mellin transform (FrMT) digitally. The connection between the FrMT and the fractional Fourier transform (FrFT) is formed by the logarithmic warping operator. Following this connection, we first develop an algorithm to perform the logarithmic warping operation which is combined together with a discrete FrFT algorithm to compute the FrMT. Performance of the developed algorithm is demonstrated through simulations.

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