

On Double Sumudu Transform and Double Laplace Transform

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ABSTRACT

In this study, first of all, we consider wave equations with constant coefficients. By using convolution we then produce a new equation with variable coefficients. Finally, we apply two techniques: double Laplace transform and double Sumudu transform to solve the new wave equation with non-constant coefficients and establish a relationship between double Sumudu transform and double Laplace transform.

Keywords: Double Laplace transform, single Laplace transform, double Sumudu transform and convolution theorem.