

**CERTAIN THEOREMS ON TWO DIMENSIONAL  
LAPLACE TRANSFORM AND  
NON-HOMOGENEOUS PARABOLIC PARTIAL  
DIFFERENTIAL EQUATIONS**

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**Abstract.** In this work, we present new theorems on two-dimensional Laplace transformation. We also develop some applications based on these results. The two-dimensional Laplace transformation is useful in the solution of non-homogeneous partial differential equations. In the last section a boundary value problem is solved by using the double Laplace-Carson transform.

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