

# Applications of Laplace Transformation

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**Abstract:** *Mathematics holds a significant role in our daily lives, and the Laplace transform stands out as a vital mathematical tool extensively utilized by researchers to derive solutions for a wide range of real-world problems that are modeled as differential equations, simultaneous differential equations, or integral equations. This paper delves into an in-depth examination of the Laplace transform, its fundamental properties, and its "Applications of Laplace Transform in Various Fields." It spotlights several instances where the Laplace transform finds practical use in research problems. Furthermore, the paper offers detailed insights into specific applications of the Laplace transform..*

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