

# **Abstract**

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## **State Space Approach to Generalized Thermoelastic Problem with Thermomechanical Shock**

In this work the state space formulation for one-dimensional problem of generalized thermoelasticity with one relaxation time is introduced. The resulting formulation together with the Laplace transform technique is applied to a thermomechanical shock half-space problem. The solution in the transformed domain is obtained. The inverse Laplace transforms is evaluated numerically. The results are obtained and represented graphically.