

Abstract

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A Two-Dimensional Generalized Thermoelasticity Problem for a Half-Space under The Action of a Body Force

In this work, we consider a two-dimensional problem of distribution of thermal stresses and temperature in a generalized thermoelastic half-space under the action of a body force and subjected to a thermal shock on the bounding plane. Laplace and exponential Fourier transform techniques are used. The solution in the transformed domain is obtained by a direct approach. The inverse double transform is evaluated numerically. Numerical results are obtained and represented graphically.