

## عنوان مقاله:

Impact of Memory-dependent Response of a Thermoelastic Thick Solid Cylinder

## محل انتشار:

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## خلاصه مقاله:

An internal heat source is assumed to act on a cylindrical body with radiation-like boundary conditions to explore the memory-dependent thermoelastic response of a solid object. The top and bottom surfaces of the solid cylinder are subjected to additional heating conditions. To obtain the thermal behaviour of the considered medium, the integral transform method is used, while the inversion solution of the heat transfer equation, the thermoelastic displacement and stress functions are presented in the Laplace domain due to the complexity of the calculation. To understand the numerical calculations, the material properties of aluminium metal are taken into account, and all the obtained results are presented graphically.

## کلمات کلیدی:

Memory-dependent derivatives, solid circular cylinder, Temperature, Displacement, Integral transform

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1756233>

