

# A THIN ROUND VISCOELASTIC DISK IN THE FIELD OF NONSTATIONARY AND NON-HOMOGENOUS TEMPERATURE

## Abstract

*The components of the displacements vectors of deformations and stress tensors, which arise in a thin viscoelastic continuous disk and disk with central hole under the action of the field of non stationary and non homogenous temperature are defined. The essential influence of non stationary and non homogenous filed of temperature on mechanical properties of disks material has been taken into account. The given problem of thermoviscoelasticity for disk with essentially temperature dependent material properties has been reduced to the problem of thermoviscoelasticity for the disk, the material properties of which don't depend on temperature. An exact analytical solution of the last problem, which is of separate autonomus interest has been obtained.*