KIYASBEYLI E.T.

BUCKLING OF MULTILAYER NON-LINEARLY- ELASTIC RODS

Abstract

Results of theoretical investigation of the problem on loss of load-carrying capacity of multilayer non-linearly-elastic roads for different forms of attaching are given in the paper. Stated problem is solved by modified variational method of mixed type in combination with Rayleigh -Ritz method. Theoretically definition of critical force is reduced to solving Cauchy problem. As example we can consider two-layer rod. Influence of physico-mechanical, geometrical parameters of system and boundary conditions on the value of warping critical force is obtained. Particularly, for zero eccentricity Shenly critical forces are obtained for received attachings.