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ON ONE APPROXIMATE METHOD OF SOLUTION  
OF BUCKLING PROBLEM NONLINEAR ELASTIC  
RING OF NONUNIFORM BY WIDTH

Abstract

Thin-walled rings having the nonuniformity property in combination with nonlinear elasticity property, are widely used as a bearing member in various constructions. The given paper is devoted to the theoretical investigation of buckling problem of such rings. The posed problem is solved by variational method of mixed type, and this problem is reduced to solving Cauchy problem for the first order nonlinear differential equation. It was brought to light that characterizing parameters of system exert on the value of buckling load.