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LATERAL OSCILLATIONS OF A BEAM MADE OF MULTI-MODULUS MATERIAL LYING ON INHOMOGENEOUS VISCO-ELASTIC FOUNDATION

Abstract

In the paper we consider a problem of free lateral oscillations of a beam inhomogeneous in length and made of multi-modulus material, subject to external visco-elastic inhomogeneous resistance. By using the separation of variables and Bubnov-Galerkin methods, a formula for determining the values of angular frequency was found. The numerical analysis was carried out, the results were represented in the form of tables and characteristic graphs.