

DETERMINATION OF CHARACTERISTIC VIBRATION FREQUENCIES FOR THE RECTANGULAR PLATE WITH A FREE BOUNDARY

Vlasova E. V.

Approximate method for the determination of characteristic vibration frequency spectrum is discussed. The efficacy of assigned approximation functions as applied to rectangular plates is examined. Self-adjoint univariate equations with optimizable parameters are used to establish these functions. Variation of parameters is aimed at matrix reduction to a diagonal type, concerning the basic matrix of a system of linear (algebraic) equations derivable by Ritz's method. Model problem solutions prove a high effectiveness of suggested formulae.