

LETTERS TO THE EDITOR



COMMENTS ON "NATURAL FREQUENCIES OF TRANSVERSE VIBRATIONS OF NON-UNIFORM CIRCULAR AND ANNULAR PLATES"

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The authors are to be congratulated for their extremely thorough and interesting study [1].

It is also the purpose of the present Note to discuss the accuracy of some of the results presented in reference [1] specially when referring to the fundamental eigenvalues of the structural system considered by Bodine [2] since considerable discrepancies are observed between the frequency coefficients determined in reference [1] and those published in reference [2] as can be immediately concluded from the observation of Figure 4 of the excellent study by Selmane and Lakis [1].

An exact solution of the problem under discussion has recently been obtained [3], the eigenvalues being in excellent agreement with those obtained by means of



Figure 1. Fundamental frequency coefficient Ω_1 of a circular plate simply supported along an arbitrary circle: - -, reference [1]; ---, reference [2]; +, exact results [3].

a variational approach. As shown in Figure 1 of the present discussion the values obtained in reference [1] agree admirably well with those determined in reference [3] indicating extremely high accuracy of the approach developed in reference [1].

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AUTHOR'S REPLY

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