Technical Comments

Comment on "Lateral Vibration and Stability Relationship of Elastically Restrained Circular Plates"

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LURIE[2] observed that for a two-dimensional structural element, if the buckling mode and the fundamental free vibration mode differ very little, the curve between square of frequency and buckling load is not "exactly" linear but "nearly" linear. This statement is substantiated with particular reference to an elastically restrained circular plate. The Fig. 1 of Ref. 1 plotted between the square root of the frequency and buckling load does not clearly expose Lurie's observation. Hence, Fig. 1 of present comment should replace that of Ref. 1. For definition of symbols, reference may be made to Ref. 1. It may be concluded that frequency square vs buckling load is "nearly" linear within the accuracies of the present analysis even for elastically restrained circular plates and for the limiting cases of restraints.

Received January 23, 1973. Some statements of our earlier Technical Note (Ref. 1) need clarification and are liable to be misinterpreted unless this comment is included.
Index category: Structural Stability Analysis, Structural Dynamic Analysis.

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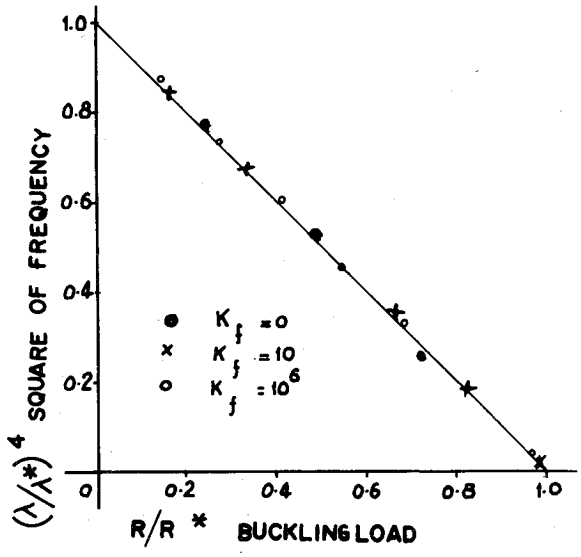

Fig. 1 Variation of frequencies with end loads.

References

[1] Singa Rao, K. and Amba Rao, C. L., "Lateral Vibration and Stability Relationship of Elastically Restrained Circular Plates," *AIAA Journal*, Vol. 10, No. 12, Dec. 1972, pp. 1689–1690.
[2] Lurie, H., "Lateral Vibrations as related to Structural Stability," *Journal of Applied Mechanics*, Vol. 19, 1952, pp. 195–204.

Errata

Role of the Anelastic Behavior of the Ablation Material on Cross-Hatching

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[AIAA J. **10**, 1528–1529 (1972)]

THE figure captions in this Note were inadvertently placed under the wrong figures. The figure captions should read as follows.

Fig. 1 "Amplification factor vs Mach number" should show the diagram of Fig. 3 in the Note.
Fig. 2 "Amplification rate vs frequency (from Ref. 1)" should show the diagram of Fig. 1 in the Note.
Fig. 3 "Amplification rate vs frequency (present calculation)" should show the diagram of Fig. 2 in the Note.
Fig. 4 "Amplification rate vs Mach number" should show the diagram of Fig. 5 in the Note.

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Index categories: Material Ablation; Supersonic and Hypersonic Flow.

Fig. 5 "Range of the proportionality factor $\bar{K}$ (for $\tau\omega > 0$) vs Mach number" should show the diagram of Fig. 4 in the Note.

Comment on "A Method of Earth-Pointing Attitude Control for Elliptic Orbits"

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THE second line of text following Eq. (4) should be corrected to read as follows.

Therefore, the pitch stability chart, Fig. 2 of Ref. 1, obtained for $g = 0$ is obviously incorrect for small eccentricities. Furthermore, even in the case of arbitrary eccentricities, this pitch stability chart is only qualitatively correct. For comparison, the pitch stability chart for $g = 0$, found in a prior investigation,[3] is shown in Fig. 1 of this Comment.

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Index category: Spacecraft Attitude Dynamics and Control.