

thoroughly the effect of close spacing of natural frequencies. The authors hope that this simulation study provides some insight into the uses and limitations of the "Asher method" not heretofore available in the open literature.

#### References

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<sup>2</sup> Fraeijs de Veubeke, B., "Déphasages caractéristiques et vibrations forcées d'un système amorti," *Académie Royale de Belgique, Bulletin de la Classe des Sciences*, 5e Série-Tome XXXIV, 1948, pp. 626-641.

<sup>3</sup> Fraeijs de Veubeke, B., "A Variational Approach to Pure Mode Excitation Based on Characteristic Phase Lag Theory," *AGARD Report 39*, April 1956.

<sup>4</sup> Asher, G. W., "A Method of Normal Mode Excitation Utilizing Admittance Measurement," *Proceedings of The National Specialists' Meeting on Dynamics and Aeroelasticity*, Institute of Aerospace Sciences, 1958, pp. 69-76.

## Errata

### Dynamic Nonlinear Response of Cylindrical Shells to Asymmetric Pressure Loading

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**T**HE potential energy of the external pressure given by Eq. (5) was formulated assuming a conservative force system. This assumption is incorrect, since that portion of pressure loading

associated with the force vector changing direction and magnitude as the shell deforms represents a nonconservative force system. Therefore, the generalized forces in the governing equations of motion given by Eq. (10) should have been derived through the principle of virtual work instead of from the potential function. Hence, the integrands of the generalized force quantities,  $\tilde{Q}_w$ ,  $\tilde{Q}_v$ , and  $\tilde{Q}_u$ , obtained through the virtual work method replace Eq. (11) in the following form:

$$\begin{aligned} -\tilde{Q}_w &= 2L^2Rp \left( -1 + \bar{W} + W - V_\theta - \frac{1}{L} U_\gamma \right) \frac{\partial W}{\partial W_{mn}} \\ -\tilde{Q}_v &= 2L^2Rp(W_\theta + \bar{W}_\theta + V) \frac{\partial V}{\partial V_{mn}} \\ -\tilde{Q}_u &= 2LRp(W_\gamma + \bar{W}_\gamma) \frac{\partial U}{\partial U_{mn}} \end{aligned}$$

This correction primarily affects large displacement response and results in a reduction of the peak response quantities by about 19, 10, and 6% at load levels of  $p_r = 150$ , 125, and 100 psi, respectively, for shell B in Fig. 3.

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