

Dr. C. Lakshmikantham

Selected Publications:

Milligan R., Gerard, G., Lakshmikantham, C., and Becker, H., "General Instability of Orthotropic Stiffened Cylinders under Axial Compression", AIAA Journal, Vol. 4, No. 11, pp. 1906-1913, November 1966, Also Report AFFDL-TR-65-161, Air Force Flight Dynamics Laboratory, USAF, Wright Patterson Air Force Base, Ohio, July 1965.

Milligan, R., Gerard, G. and Lakshmikantham, C., "General instability of orthotropically stiffened cylinders under axial compression", AIAA J., Vol. 4, No. 11, November 1966.

C. Lakshmikantham and H. Becker. Minimum weight aspects of stiffened cylinders under compression. Technical Report TR-CR-81693, NASA, 1967.

George Gerard and C. Lakshmikantham (Allied Research Associates, Inc., Concord, Massachusetts, USA), "Structural Design Synthesis Approach to Filamentary Composites", NASA CR-964, November 1967, DTIC Accession Number: ADA307897, Handle / proxy Url : <http://handle.dtic.mil/100.2/ADA307897>
ABSTRACT: The first part of this paper is in the nature of a progress report on recent developments of analysis methods for filamentary composites. Theoretical predictions of the stiffness and strength properties of a unidirectional composite based on a knowledge of the constituent properties are correlated with experiments for both tensile and compressive loadings. The analysis of multilayer or laminated composites based upon the unidirectional composite properties then requires the rather straight forward use of classical anisotropic shell theory. Some structural aspects of filamentary composites designed for biaxial loads are considered in the second part. In particular, certain design restrictions inherent in the use of such composites become evident when compared to the more familiar isotropic sheet. Some of these restrictions can be overcome by a close matching of filament orientations and stress field. These factors serve to emphasize the overwhelming importance of creative structural concepts in the design of successful filamentary composites.

Lakshmikantham, C. , Tsui, TY., "Dynamic Stability of Axially-Stiffened Imperfect Cylindrical Shells Under Axial Step Loading," AIAA Journal, Vol. 12, February 1974, pp. 163-169.