
Journal of the
ENGINEERING MECHANICS DIVISION
Proceedings of the American Society of Civil Engineers

ENGINEERING MECHANICS DIVISION
EXECUTIVE COMMITTEE

Ray W. Clough, Chairman; Donald Dean, Vice-Chairman;
John E. Goldberg; Robert M. Haythornthwaite; Daniel Frederick,
Secretary; Ralph B. Peck, Board Contact Member

COMMITTEE ON PUBLICATIONS

Daniel Frederick, Chairman; Melvin L. Baron; Jack G. Bouwkamp;
Charles E. Cutts; J. W. Delleur; Anthony M. DiGioia;
George Herrmann; Ernest F. Masur; A. S. Veletsos

CONTENTS

August, 1965

Papers

	Page
Thermal-Shock Effects on a Space Vehicle by Lewis Li-Tang Au and Donald J. Trent	1
Elastic Plates Subjected to Moving Heat Sources by Ardeshir Jahanshahi	27
Earthquake Response of a Yielding Structure by Paul C. Jennings	41
Free Vibrations of Conical Shells by V. I. Weingarten	69
Stress in Hyperboloids under Edge Loadings by David G. Elms, David P. Billington, and Robert Mark	89

(over)

Copyright 1965 by the American Society of Civil Engineers.

Note.—Part 2 of this Journal is the 1965-39 Newsletter of the Engineering Mechanics Division.

The three preceding issues of this Journal are dated February, 1965, April, 1965, and June, 1965.

	Page
Elastic Stability of Radially Nonhomogeneous Rings by S. Russell Keim	115
Added Mass of a Sphere in a Bounded Viscous Fluid by Kenneth G. McConnell and Donald F. Young	147
Bending of Circular Sandwich Plates by Jao-Shiun Kao	165

DISCUSSION

Axisymmetric Deflections of Shallow Conical Shells, by Gerald A. Wempner. (April, 1964. Prior dis- cussion: October, 1964. Discussion closed.) by Gerald A. Wempner (closure)	179
Resonance Testing of Full-Scale Structures, by Donald E. Hudson. (June, 1964. Prior discussion: October, December, 1964, Feb- ruary, 1965. Discussion closed.) by Donald E. Hudson (closure)	180
Vibrational Transfer from Shear Buildings to Ground, by Lydik S. Jacobsen. (June, 1964. Prior discussion: February, 1965. Discussion closed.) by Lydik S. Jacobsen (closure)	182
Minimum Weight Plastic Design for Continuous Frames, by Donald A. Sawyer and Linton E. Grinter. (June, 1964. Prior discussion: October, 1964, February, 1965. Dis- cussion closed.) by Donald A. Sawyer and Linton E. Grinter (closure)	182
Response of Elastic Cylinders to Plane Shear Waves, by Lawrence J. Mente and Francis W. French. (October, 1964. Prior discussion: None. Discussion closed.) errata	192
Probability of Structural Failure under Random Loading, by Masanobu Shinozuka. (October, 1964. Prior discussion: None. Discussion closed.) by Jorge I. Bustamante and Emilio Rosenblueth	192
Probabilistic Design to Resist Earthquakes, by Emilio Rosenblueth. (October, 1964. Prior discussion: June, 1965. Discussion closed.) by John L. Bogdanoff and John E. Goldberg	194

	Page
Elastic and Inelastic Buckling of Portal Frames, by Kuang-Han Chu and Algis Pabarcus. (October, 1964. Prior discussion: April, 1965. Discussion closed.) by Kuang-Han Chu and Algis Pabarcus (closure)	196
Plastic Analysis of Orthotropic Circular Plates, by Joel Markowitz and Ling-Wen Hu. (October 1964. Prior discussion: None. Discussion closed.) errata	197
Orthotropic Beams Under Polynomial Loads, by Isadore K. Silverman. (October, 1964. Prior discussion: None. Discussion closed.) errata	197
Limit Design of Reinforced Concrete Slabs, by Robert E. Crawford. (October, 1964. Prior discussion: February, 1965. Discussion closed.) by Robert E. Crawford (closure)	198
Circular Plates Loaded into the Plastic Region, by Leslie M. Lackman. (December, 1964. Prior discussion: None. Discussion closed.) errata	199
Inelastic Buckling Gradient, by Bruce G. Johnston. (December, 1964. Prior discussion: None. Dis- cussion closed.) by Giuliano Augusti	199
Complementary Energy Method for Finite Deformations, by Charles Libove. (December, 1964. Prior discussion: None. Discussion closed.) by Alan Jennings	203
by Mark Levinson	206
by Thomas M. Charlton	207
Load Deformation Behavior of Shells of Revolution, by Steven C. Batterman. (December, 1964. Prior discussion: None. Discussion closed.) errata	209
Pressure Generated by Cavitation in a Pipe, by Wen-Hsiung Li and James P. Walsh. (December, 1964. Prior discussion: None. Discussion closed.) errata	209

Calculating Deflections of a Partially Collapsed Frame, by Nicholas Perrone and Michael C. Soteriades. (Feb- ruary, 1965. Prior discussion: None. Discussion closed.) by German Gurfinkel	210
An Inclined Plume, by Garth S. Harris. (February, 1965. Prior discussion: None. Discussion closed.) by V. Kruka	214

INFORMATION RETRIEVAL

The key words, abstract, and reference "cards" for each article in this Journal represent part of the ASCE participation in the EJC information retrieval plan. The retrieval data are placed herein so that each can be cut out, placed on a 3 x 5 card and given an accession number for the user's file. The accession number is then entered on key word cards so that the user can subsequently match key words to choose the articles he wishes. Details of this program were given in an August 1962 article in CIVIL ENGINEERING, reprints of which are available on request to ASCE headquarters.