

CONTENTS

Oscillator Response to Modulated Random Excitation <i>by Ross B. Corotis and Thomas A. Marshall</i>	501
Response of Mortar and Concrete to Biaxial Compression <i>by Einar Andenaes, Kurt Gerstle, and Hon-Yim Ko</i>	515
A Failure Criterion for Concrete <i>by Niels Saabye Ottosen</i>	527
Design Sensitivity Analysis with Substructuring <i>by Jasbir S. Arora and Ashok K. Govil</i>	537
Explicit Solutions for Plate Buckling Analysis <i>by Donald G. Williams and Alastair C. Walker</i>	549
Semianalytic Hyperelement for Layered Strata <i>by Eduardo Kausel and José M. Roësset</i>	569
Beam-Plate System on Winkler Foundation <i>by Colin B. Brown, Jacques M. Laurent, and James R. Tilton</i>	589
Wave Diffraction by a Crack: Finite Element Simulations <i>by Wilton W. King and John F. Malluck</i>	601
Constitutive Relations for Generalized Loadings <i>by Hans Petersson and Egor P. Popov</i>	611
Nonlinear Model/Solution Process: Energy Approach <i>by Siegfried M. Holzer and Arnold E. Somers</i>	629

→

This Journal is published bimonthly by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, N.Y. 10017. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, N.Y. 10017. Allow six weeks for change of address to become effective. Subscription price to members is \$10.00. Nonmember subscriptions available; prices obtainable on request. Second-class postage paid at New York, N.Y. and at additional mailing offices. EE, EM, TE.

The Society is not responsible for any statement made or opinion expressed in its publications.

Thermoelastic Optimal Design of Plates <i>by Fuat Erbatur and Yalçın Mengi</i>	649
Model Study of Dynamic Response of Landing Mat <i>by Fred W. Kiefer, Vance T. Christiansen, and P. Thomas Blotter</i>	659
Stationary Random Vibration of Hysteretic Systems <i>by Hirokazu Takemiya and Loren D. Lutes</i>	673
Digital Generation of Alongwind Velocity Field <i>by Masanobu Shinozuka and Roy Levy</i>	689
Model Experiments for Span-Vehicle Dynamics <i>by James F. Wilson</i>	701
Extremes of Autocorrelated Load Model <i>by Luis Valadares Tavares</i>	717
Deformations of Plastic Frames Considering Axial Forces <i>by M. Z. Cohn and Tariq Rafay</i>	725

TECHNICAL NOTES

Proc. Paper 13099

Nonlinear Analysis of Laminated Cross-Ply Plates <i>by Madanapalli K. Prabhakara and Chuen-Yuan Chia</i>	749
Vibration of Structure with Interior Hinges <i>by Selvadurai Mahalingam</i>	753
Skew Plates in Bending <i>by Madhujit Mukhopadhyay</i>	758
Analysis of Undercarriage Frames of Railway Wagons <i>by Suresh S. Kulkarni and Madhukar M. Basole</i>	762
Torsional Stiffness of Twisted Wire Cables <i>by George A. Costello and Sunil K. Sinha</i>	766

DISCUSSION

Proc. Paper 13093

Constitutive Equations and Punch-Indentation of Concrete, by Andrie C. T. Chen and Wai-Fah Chen (Dec., 1975. Prior Discussion: Dec., 1976).
closure 773

Instability, Ductility, and Size Effect in Strain-Softening Concrete,^a by Zdeněk P. Bažant (Apr., 1976. Prior Discussion: Apr., 1977. Prior Errata: Feb., 1977).
by Lorenzo Jurina and Giulio Maier 775

Buckling of Axially Loaded Open Shells, by Tung H. Yang and Sidney A. Guralnick (Apr., 1976. Prior Discussion: Dec., 1976).
closure 777

A Numerical Solution for Viscoelastic Half Planes, by Gautam Dasgupta (Aug., 1976).
errata 778

Thermal Stress as a Narrow-Band Random Load, by Robert A. Heller (Oct., 1976).
errata 778

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 × 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.

^aDiscussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.