

# CONTENTS

<b>Dynamic Stiffness Matrices for Viscoelastic Half Planes</b> <i>by Gautam Dasgupta and Anil K. Chopra</i> . . . . .	729
<b>First-Crossing of Second-Moment Random Sequences</b> <i>by Daniele Veneziano</i> . . . . .	747
<b>Meridionally Imperfect Cooling Towers</b> <i>by James G. A. Croll, Fevzi Kaleli and Kenneth O. Kemp</i> . . . . .	761
<b>Plane Turbulent Wall Wakes</b> <i>by Nallamuthu Rajaratnam and Sri P. Rai</i> . . . . .	779
<b>Active Control of Two-Cable-Stayed Bridge</b> <i>by Jann N. Yang and Fanis Giannopoulos</i> . . . . .	795
<b>Beam Equation with Variable Foundation Coefficient</b> <i>by Joel N. Franklin and Ronald F. Scott</i> . . . . .	811
<b>Large Deformation Analysis of Submerged Ring Frames</b> <i>by Howard B. Harrison</i> . . . . .	829
<b>Circular Beam on Elastic Foundation</b> <i>by Dimitrios E. Panayotounakos and Pericles S. Theocaris</i> . . . . .	839
<b>A Fuzzy Safety Measure</b> <i>by Colin B. Brown</i> . . . . .	855
<b>Instability and Spacing of Cooling or Shrinkage Cracks</b> <i>by Zdeněk P. Bažant and Abu Bakr Wahab</i> . . . . .	873

→

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.

---

TECHNICAL NOTES

Proc. Paper 14871

---

<b>Shear Centers</b> <i>by Wan T. Tsai</i> . . . . .	893
<b>Dynamic Buckling of Simple Frames under Step-Load</b> <i>by George J. Simitses, Anthony N. Kounadis, and Jagannath Giri</i> . . . .	896
<b>Axial Vibrations of Fluid Filled Pipe</b> <i>by Ivan Nelson</i> . . . . .	901
<b>Floor Response Spectra for Equipment</b> <i>by Michael J. O'Rourke and George Kountouris</i> . . . . .	907

---

DISCUSSION

Proc. Paper 14866

---

<b>Exact Analysis of Class of Ring Segments</b> , by James Ting-Shun Wang (Aug., 1978). <i>by Jan J. Tuma and Harry R. Lundgren</i> . . . . .	915
<b>Solution for Second-Moment Reliability Index</b> , by David B. Parkinson (Oct., 1978). <i>by R. Rackwitz and B. Fiessler</i> . . . . .	918
<b>Effect of Imperfections on Vertical Track Buckling</b> , by Yehia M. El-Aini (Dec., 1978). <i>errata</i> . . . . .	919
<b>Blunt Crack Band Propagation in Finite Element Analysis</b> , by Zdeněk P. Bažant and Luigi Cedolin (Apr., 1979). <i>errata</i> . . . . .	919