

1977

VOLUME 13

NUMBER 1

INTERNATIONAL JOURNAL OF  
**SOLIDS and**  
STRUCTURES

Editor-in-Chief: **GEORGE HERRMANN**

**Pergamon Press** NEW YORK OXFORD LONDON PARIS

# INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES

## *Editor-in-Chief:*

GEORGE HERRMANN *School of Engineering,  
Stanford University, Stanford, California 94305*

## *Board of Editors:*

- J. D. ACHENBACH *Northwestern University*  
B. A. BOLEY *Northwestern University*  
V. V. BOLOTIN *USSR Academy of Sciences*  
L. FINZI *Milan Polytechnic Institute*  
Y. C. FUNG *University of California, San Diego*  
H. J. GREENBERG *University of Denver*  
H. LIEBOWITZ *The George Washington University*  
C. MASSONNET *University of Liège*  
E. W. PARKES *City University*  
K. WASHIZU *University of Tokyo*  
W. ZERNA *Ruhr-Universität Bochum*  
O. C. ZIENKIEWICZ *University College of Swansea*  
H. ZORSKI *Polish Academy of Sciences*

## *Editorial Advisory Board:*

- |                   |                  |                  |                  |
|-------------------|------------------|------------------|------------------|
| J. H. ARGYRIS     | <i>London</i>    | F. K. G. ODQVIST | <i>Stockholm</i> |
| C. BENITO         | <i>Madrid</i>    | H. PARKUS        | <i>Vienna</i>    |
| J. L. ERICKSEN    | <i>Baltimore</i> | W. PRAGER        | <i>Savognin</i>  |
| J. FERRY BORGES   | <i>Lisbon</i>    | I. N. RABOTNOV   | <i>Moscow</i>    |
| N. J. HOFF        | <i>Stanford</i>  | F. S. SHAW       | <i>Sydney</i>    |
| C. F. KOLLBRUNNER | <i>Zurich</i>    | J. SINGER        | <i>Haifa</i>     |
| J. MANDEL         | <i>Paris</i>     | I. N. SNEDDON    | <i>Glasgow</i>   |
| R. D. MINDLIN     | <i>New York</i>  | M. MIKKOLA       | <i>Helsinki</i>  |
| F. NIORDSON       | <i>Lyngby</i>    |                  |                  |

Published monthly. *Annual subscription rates* (1977). For libraries, university departments, government laboratories, industrial and other multiple-reader institutions US \$132.00 per annum (including postage and insurance). *Specially reduced rates to individuals*. In the interests of maximizing the dissemination of the research results published in this important international journal we have established a two-tier price structure. Any individual whose institution takes out a library subscription may purchase a second or additional subscription for personal use at the much reduced rate of US \$30.00. All subscription enquiries should be directed to: The Subscription Fulfillment Manager, Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, England.

### *Microform Subscriptions and Back Issues*

Back issues of all previously published volumes are available in the regular editions and on microfilm and microfiche. Current subscriptions are available on microfiche simultaneously with the paper edition and on microfilm on completion of the annual index at the end of the subscription year.

Copyright © 1977 Pergamon Press Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means: electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the publishers.

### *Publishing Office:*

84-86 Malahide Road, Coolock, Dublin 5, Republic of Ireland

### *Advertising Offices:*

## **PERGAMON PRESS**

Headington Hill Hall, Oxford OX3 0BW, England  
Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A.