

1991

VOLUME 26

NUMBER 1

ISSN 0020-7462

INTERNATIONAL JOURNAL OF

# NON-LINEAR MECHANICS

Editor-in-Chief: **WILLIAM A. NASH**



Pergamon Press

OXFORD · NEW YORK · BEIJING · FRANKFURT  
SÃO PAULO · SEOUL · SYDNEY · TOKYO

# INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS

*Editor-in-Chief*

WILLIAM A. NASH

College of Engineering, University of Massachusetts  
Amherst, MA 01002, U.S.A.

VOLUME 26, No. 1

1991

## CONTENTS

- A. Chandra and S. Saigal 1 A boundary element analysis of the axisymmetric extrusion processes
- M. Torrissi and M. V. Lalicata 15 Some similarity solutions for a hyperelastic half space with finite deformations
- T. B. Moodie and D. W. Barclay 25 Padé-extended wavefront expansions and non-linear dissipative waves
- M. Z. Aboelnaga 41 The general problem of regular motion of an axisymmetrical satellite in a central field
- R. Segev and G. de Botton 47 On the consistency conditions for force systems
- F. A. Moslehy and R. M. Evan-Iwanowski 61 The effects of non-stationary processes on chaotic and regular responses of the Duffing oscillator
- H. J. Van Roessel and W. H. Hui 73 Unsteady three-dimensional Newton-Busemann flow using material functions
- T. K. Caughey and A. F. Vakakis 89 A method for examining steady state solutions of forced discrete systems with strong nonlinearities
- Chongqing Cheng 105 Invariant torus bifurcation series and evolution of chaos exhibited by a forced non-linear vibration system
- J. A. Ivanova 117 Variational principle for global stability of elasto-plastic thin shells
- S. H. Chen, Y. K. Cheung and S. L. Lau 125 On perturbation procedure for limit cycle analysis
- Chen-I Hung 135 A note on conjugate natural convection-conduction heat transfer for a vertical plate fin embedded in high-porosity medium

## I Software Survey Section

Indexed/abstracted in: *Appl. Mech. Rev.*, *Curr. Cont. ASCA*, *Cam. Sci. Abstr.*,  
*Curr. Cont./Eng. Tech. & Applied Sci.*, *Eng. Ind.*, *Math. R.*,  
*Mechanics*, *Curr. Cont. SCISEARCH Data*, *SSSA/CISA/ECA/ISMEC*.



ISSN 0020-7462  
IJNMAG 26(1) 1-140 (1991)

PERGAMON PRESS

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