

739. Vibration Analysis of Non-Uniform Imperfect Functionally Graded Beams with Porosities in Thermal Environment
F. Ebrahimi, M. Hashemi
759. An Optimal Model on Contour of Up-Shifting Tooth for Derailleur System of Bicycle
Y.-Z. Ma, S.-J. Chiou
769. Investigation of Nano-Mechanical and-Tribological Properties of Hydrogenated Diamond Like Carbon (DLC) Coatings
Y.-R. Jeng, S. Islam, K-T. Wu, A. Erdemir, O. Eryilmaz
777. Modified Johnson-Cook Plasticity Model with Damage Evolution: Application to Turning Simulation of 2XXX Aluminium Alloy
H. Ijaz, M. Zain-ul-abdein, W. Saleem, M. Asad, T. Mabrouki
789. Probability of Debonding and Effective Elastic Properties of Particle-Reinforced Composites
L. C. Bian, W. Liu, J. Pan
797. Vector form Intrinsic Finite Element Based Approach to Simulate Crack Propagation
Y. F. Duan, S. M. Wang, R. Z. Wang, C. Y. Wang, E. C. Ting
813. Boundary Element Calculation of Near-Boundary Solutions in 3D Generally Anisotropic Solids by the Self-Regularization Scheme
Y. C. Shiah, L. D. Chang
821. Three-Dimensional Elastic Analysis of Transversely-Isotropic Composites
Yu. V. Tokovyy, C. C. Ma
831. Aspect Ratio Effect on Laminar Flow Bifurcations in a Curved Rectangular Tube Driven by Pressure Gradients
K. T. Chen, K. F. Yarn, H. Y. Chen, C. C. Tsai, W. J. Luo, C. N. Chen
841. Flow and Dispersion Characteristics of a Stack-Issued Backward Inclined Jet in Crossflow
M. G. Khouyngani, R. F. Huang, C. M. Hsu
853. Numerical Investigation of a N₂O/HTPB Hybrid Rocket Motor with a Dual-Vortical-Flow (DVF) Design
A. Lai, Y. C. Lin, S. S. Wei, T. H. Chou, J. W. Lin, J. S. Wu, Y. S. Chen
863. Lattice Boltzmann Simulations of Cavity Flows on Graphic Processing Unit with Memory Management
P. Y. Hong, L. M. Huang, C. Y. Chang, C. A. Lin
873. The Size-Dependent Electromechanical Coupling Response in Circular Micro-Plate Due to Flexoelectricity
X. Ji, A.-Q. Li

Journal of Mechanics

Aims and Scope:

The objective of the Journal of Mechanics is to provide an international forum to foster exchange of ideas among mechanics communities in different parts of world. The Journal of Mechanics publishes original research in all fields of theoretical and applied mechanics. The Journal especially welcomes papers that are related to recent technological advances, such as micro/nanomechanics, medical and biological systems, and microscale heat transfer. The contributions, which may be analytical, experimental or numerical, should be of significance to the progress of mechanics. Papers which are merely illustrations of established principles and procedures will generally not be accepted. Reports that are of technical interest are published as Short articles. Review articles are published only by invitation.

Editor-in-Chief and Chairman of Editorial Board:

K. N. Chiang, Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan

Associate Editors:

C. Bailey, Mathematical Sciences Department, University of Greenwich, U.K.
A. Bejan, Department of Mechanical Engineering and Materials Science, Duke University, U.S.A.
Y. Benveniste, Faculty of Engineering, Tel-Aviv University, Israel
W. S. Chan, Mechanical and Aerospace Engineering, University of Texas at Arlington, U.S.A.
C. K. Chao, Department of Mechanical Engineering, National Taiwan University of Science and Technology, Taiwan
J. C. Chen, Department of Mechanical Engineering, National Central University, Taiwan
J. T. Chen, Department of Harbor and River Engineering / Department of Mechanical and Mechatronic Engineering, Taiwan Ocean University, Taiwan
T. Y. Chen, Department of Civil Engineering, National Cheng Kung University, Taiwan
Y. B. Chen, Department of Power Mechanical Engineering, National Tsing Hua University, Taiwan
H. C. Cheng, Department of Aerospace and Systems Engineering, Feng Chia University, Taiwan
H. D. Cheng, Department of Civil Engineering, University of Mississippi, U.S.A.
M. Daniel, Department of Mechanics, Biomechanics and Mechatronics, Czech Technical University in Prague, Czech Republic
V. M. Fomin, Russian Academy of Sciences, Novosibirsk, Russia
H. Gao, School of Engineering, Brown University, U.S.A.
H. Ghassemi, Department of Maritime Engineering, Amirkabir University of Technology, Iran
S. S. Hsieh, Department of Mechanical and Electro-Mechanical Engineering, National Sun Yat-sen University, Taiwan
C. Y. Huang, Department of Power Mechanical Engineering, National Tsing Hua University, Taiwan
M. Iguchi, Division of Materials Science and Engineering, Graduate School of Engineering, Hokkaido University, Japan
A. M. Korsunsky, Department of Engineering Science, Oxford University, U.K.
C. C. Lee, Department of Power Mechanical Engineering, National Tsing Hua University, Taiwan
M. T. Lee, Department of Mechanical Engineering, National Chung Hsing University, Taiwan
C. A. Lin, Department of Power Mechanical Engineering, National Tsing Hua University, Taiwan
D. S. Liu, Department of Mechanical Engineering, National Chung Cheng University, Taiwan
C. C. Ma, Department of Mechanical Engineering, National Taiwan University, Taiwan
Y. L. Shen, Department of Mechanical Engineering, University of New Mexico, U.S.A.
Y. C. Shiah, Department of Aeronautics and Astronautics, National Cheng Kung University, Taiwan
T. E. Tezduyar, Department of Mechanical Engineering, Rice University, U.S.A.
T. C. T. Ting, Division of Mechanics and Computation, Stanford University, U.S.A.
J. L. Tsai, Department of Mechanical Engineering, National Chiao Tung University, Taiwan
M. Y. Tsai, Department of Mechanical Engineering, Chang Gung University, Taiwan
T. Wang, Department of Mechanical Engineering, University of New Orleans, U.S.A.
W. F. Wu, Department of Mechanical Engineering, National Taiwan University, Taiwan
R. J. Yang, Department of Engineering Science, National Cheng Kung University, Taiwan
G. Q. Zhang, Delft Institute of Microsystems and Nanoelectronics, Delft University of Technology, The Netherlands

Executive Editor:

H. Y. Tsai, Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan

Abstracted/indexed in:

SCI Expanded; Engineering Index (EI Compendex); Current Content; Research Alert; International Aerospace Abstract; Cambridge Scientific Abstracts; Chemical Abstracts Service; Advanced Polymers Abstract; Aluminum Industry Abstracts; Composites Industry Abstracts; Computer and Information Systems Abstracts Journal; Corrosion Abstracts; Earthquake Engineering Abstracts; Electronics and Communications Abstracts Journal; Engineered Materials Abstracts; Environmental Engineering Abstracts (Online Edition); Materials Business File; METADEX; World Ceramics Abstracts (Online); Environmental Science and Pollution Management; Solid State and Superconductivity Abstracts.

Publication Office:

The Society of Theoretical and Applied Mechanics, R.O.C.
Eng. Building #1, National Tsing Hua University, No. 101, Sec. 2, Kuangfu Rd., Hsinchu 300, Taiwan

Subscription Information:

For general price and subscription enquiries, please contact Cambridge University Press:

For United Kingdom, Europe and Rest of the World:	For the United States, Canada and Mexico:
Cambridge University Press	Cambridge University Press
The Edinburgh Building	100 Brook Hill Drive
Shaftesbury Road	West Nyack, NY 10994-2133, USA
Cambridge CB2 8RU, United Kingdom	Phone: 1-845-353-7500
Phone: 44-(0)-1223-326070	Toll free: 1-800-872-7423
Fax: 44-(0)-1223-325150	Fax: 1-845-353-4141
Email: journals@cambridge.org	Email: subscriptions_newyork@cambridge.org

Visit the *Journal of Mechanics* online at: <http://journals.cambridge.org/jom>

Copyright © 2017 The Society of Theoretical and Applied Mechanics

Printed by Enjoy Enterprise Co., Ltd. Tel: 886-2-2732-1234, Fax: 886-2-2732-9531, website: www.enjoying.com.tw