

JOURNAL OF COMPUTATIONAL PHYSICS

Editor

Gretar Tryggvason

Worcester Polytechnic Institute, Worcester, Massachusetts

Associate Editors

Rémi Abgrall

Université Bordeaux I
Talence, France

Alvin Bayliss

Northwestern University
Evanston, Illinois

John P. Boyd

University of Michigan
Ann Arbor, Michigan

Shiyi Chen

The Johns Hopkins University
Baltimore, Maryland

Haechon Choi

Seoul National University
Seoul, S. Korea

Ron Fedkiw

Stanford University
Stanford, California

George Karniadakis

Brown University
Providence, Rhode Island

Dana A. Knoll

Los Alamos National
Laboratory
Los Alamos, New Mexico

Barry Koren

Centre for Mathematics and
Computer Science
Amsterdam, The Netherlands

Petros Koumoutsakos

Swiss Federal Institute
of Technology
Zürich, Switzerland

William R. Martin

University of Michigan
Ann Arbor, Michigan

Parviz Moin

Stanford University
Stanford, California

Stanley J. Osher

University of California
Los Angeles, California

Annick Pouquet

National Center for
Atmospheric Research
Boulder, Colorado

Jianxian Qiu

Nanjing University
Nanjing, P.R. China

Tamar Schlick

New York University
New York, New York

John Shadid

Sandia National Laboratories
Albuquerque, USA

Piotr K. Smolarkiewicz

National Center for
Atmospheric Research
Boulder, Colorado

John Strain

University of California
Berkeley, California

Huazhong Tang

Peking University
Peking, P. R. China

Tao Tang

The Hong Kong Baptist University
Kowloon Tong,
Hong Kong

Eli Turkel

Tel Aviv University
Tel Aviv, Israel

Evgenii V. Vorozhtsov

Institute of Theoretical and
Applied Mechanics
Novosibirsk, Russia

Takashi Yabe

Tokyo Institute of
Technology,
Tokyo, Japan

Stéphane Zaleski

Université Pierre et Marie
Curie
Paris, France

Editors Emeriti: Jeremiah U. Brackbill

John Killeen

Phil L. Roe

Aims and scope of the journal: The mission of the *Journal of Computational Physics* is to publish material that will assist in the reliable and accurate solution of scientific problems by numerical computation.

Publication information: *Journal of Computational Physics* (ISSN 0021-9991). For 2008, volume 227 is scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from the journal's website (<http://www.elsevier.com/locate/jcp>). Further information is available on this journal and other Elsevier products through Elsevier's website (<http://www.elsevier.com>). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Orders, claims, and journal enquiries: please contact the Customer Service Department at the Regional Sales Office nearest you:

Orlando: Elsevier, Customer Service Department, 6277 Sea Harbor Drive, Orlando, FL 32887-4800, USA; phone: (877) 8397126 [toll free within the USA]; (+1) (407) 5636022 [outside the USA]; fax: (+1) (407) 3631354; e-mail: JournalCustomerService-usa@elsevier.com

Amsterdam: Elsevier, Customer Service Department, PO Box 211, 1000 AE Amsterdam, The Netherlands; phone: (+31) 20 4853757; fax: (+31) 20 4853432; e-mail: nlinfo-f@elsevier.com

Tokyo: Elsevier, Customer Service Department, 4F Higashi-Azabu, 1-Chome Bldg, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5037; fax: (+81) (3) 5561 5047; e-mail: jp.info@elsevier.com

Singapore: Elsevier, Customer Service Department, 3 Killiney Road, #08-01 Winsland House I, Singapore 239519; phone: (+65) 6349 0222; fax: (+65) 6733 1510; e-mail: asiainfo@elsevier.com

Advertising information: Advertising orders and enquiries can be sent to: **South America:** Mr Tino DeCarlo, The Advertising Department, Elsevier Inc., 360 Park Avenue South, New York, NY 10010-1710, USA; phone: (+1) (212) 633 3815; fax: (+1) (212) 633 3820; e-mail: t.decarlo@elsevier.com. **Europe, USA, Canada and ROW:** Advertising orders and enquiries can be sent to: e-mail: commercialsales@elsevier.com. Miss Katrina Barton, phone: (+44) (0) 20 7611 4117; fax: (+44) (0) 20 7611 4463.

US mailing notice: *Journal of Computational Physics* (ISSN 0021-9991) is published semimonthly in January, March, May, July, September, November and monthly in February, April, June, August, October and December by Elsevier Inc. (P.O. Box 211, 1000 AE Amsterdam, The Netherlands). Annual subscription price in the USA US\$ 5,434 (valid in North, Central and South America), including air speed delivery. Periodical postage rate paid at Rahway, NJ and additional mailing offices.

USA POSTMASTER: Send change of address to *Journal of Computational Physics*, Elsevier, 6277 Sea Harbor Drive, Orlando, FL 32887-4800.

AIRFREIGHT AND MAILING in the USA by Mercury International Limited, 365, Blair Road, Avenel, NJ 07001.

Language services: Authors who require information about language editing and copyediting services pre- and post-submission please visit <http://www.elsevier.com/locate/languagepolishing> or contact authorsupport@elsevier.com for more information. Please note Elsevier neither endorses nor takes responsibility for any products, goods or services offered by outside vendors through our services or in any advertising. For more information please refer to our Terms & Conditions <http://www.elsevier.com/termsandconditions>

Upon acceptance of an article. Authors will be asked to transfer copyright (for more information on copyright see www.elsevier.com/permissions). This transfer will ensure the widest possible dissemination of information. A letter will be sent to the corresponding Author confirming receipt of the manuscript. A form facilitating transfer of copyright will be provided.

© The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper)