

JOURNAL OF COMPUTATIONAL PHYSICS

Editor

Gretar Tryggvason

Worcester Polytechnic Institute, Worcester, Massachusetts

Associate Editors

Rémi Abgrall
*Université Bordeaux 1
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*

Haecheon Choi
*Seoul National University
Seoul, S. Korea*

Ron Fedkiw
*Stanford University Stanford,
California*

Alex Friedman
*Lawrence Livermore
National Laboratory
Livermore, 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 or (800) 6542452 [toll free numbers for US customers]; (+1) (407) 3454020 or (+1) (407) 3454000 [customers outside US]; fax: (+1) (407) 3631354 or (+1) (407) 3639661; e-mail: usjcs@elsevier.com or elspsc@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 Habor 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 provide.

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