

JOHN WILEY & SONS LTD

Announcement

Electronic Submission



In response to numerous requests John Wiley & Sons Ltd now offers authors the opportunity to submit the final accepted version of their manuscript as an electronic file on either 3.5 or 5.25 inch disks.

Potential benefits may include reduction in submission-to-publication time for disks prepared according to our instructions, and absence of errors associated with re-keying.

- ☞ When a paper is in its final form and has been accepted for publication, authors should supply the journal editor with 2 disks, each containing the final version, which **must be accompanied by a hard copy print out identical to the version on the disks.**
- ☞ The preferred medium is a 3.5 or 5.25 inch disk in Macintosh or MS-DOS.
- ☞ Disks should be clearly labelled with the file name, the date, the author's name, and the hardware and software package used. An example of the file name would be JIDMHL - the first 3 letters represent the Wiley journal code (this is listed in the Notes for Contributors at the end of this issue) and the next 3 letters the first named author's initials (if an author only has 2 initials the middle letter should be X).
- ☞ Further guidelines for preparation and submission of disks are published at the back of this issue in the Notes for Contributors, and extra help is also available from the Publisher:

John Wiley & Sons Ltd,
Journals Production Department,
Baffins Lane, Chichester,
West Sussex, PO19 1UD, UK
Fax: (0)243 781806



New in 1995

Volume 1, 6 Issues

A SYNTHESIS OF NEW IDEAS...
COMPLEXITY

Edited by

Harold Morowitz, Editor-in-Chief
George Mason University

John L. Casti, Executive Editor
Santa Fe Institute

Complexity is a new publication providing global coverage of all aspects of the science of complexity in a readable, topical and informative way. The journal will feature concise, up-to-date survey articles, tutorials, commentary, technical communications, book and software reviews, as well as refereed original research. **Complexity** will serve as a medium of communication for professionals and students of complex adaptive systems from the fields of physics, biology, chemistry, economics, anthropology, computer science and linguistics, as well as other traditional areas where complex adaptive behavior occurs.

Complexity will interrelate these fields by focusing on the development and application of common techniques, and promote discussion among scientists and engineers concerned with real world problems.

*We invite submission of papers to **Complexity**.*

Please contact:

John L. Casti
Santa Fe Institute
1399 Hyde Park Road
Santa Fe, NM 87501
e-mail / casti@santafe.edu
phone / (505) 984-8800
fax / (505) 982-0565

Subscription information and sample copy requests may be obtained by contacting:

Subscription Department
John Wiley & Sons, Inc.
605 Third Avenue
New York, NY 10158-0012
e-mail / subinfo@jwiley.com
phone / (212) 850-6645
fax / (212) 850-6021

 **WILEY**
Publishers Since 1807

ASSOCIATE EDITORS:

MARCUS FELDMAN, Stanford University
MICHELE BOLDRIN, Northwestern University
PETER CARRUTHERS, University of Arizona
JOSEPH TRAUB, Columbia University
WOJCIECH ZUREK, Los Alamos National Lab

EDITORIAL BOARD:

Philip W. Anderson
Princeton University

Kenneth J. Arrow
Stanford University

W. Brian Arthur
Stanford University

George Bell
Los Alamos National Lab

Gregory Chaitin
IBM Research Division

George Cowan
Los Alamos, NM

Manfred Eigen
Max Planck Institute
Göttingen

Murray Gell-Mann
Santa Fe Institute

Peter Grassberger
University of Wuppertal

George Gumerman
Santa Fe Institute

Hanoch Gutfreund
The Hebrew University

W. Daniel Hillis
Thinking Machines Corp

John Holland
University of Michigan

C.S. Holling
University of Florida

Atlee Jackson
University of Illinois

Erica Jen
Los Alamos National Lab

Kunihiko Kaneko
University of Tokyo

Stuart Kauffman
Santa Fe Institute

Edward Knapp
Santa Fe Institute

Richard Palmer
Duke University

Alan Perelson
Los Alamos National Lab

David Pines
University of Illinois

Roald Z. Sagdeev
University of Maryland

Peter Schuster
University of Vienna

L.M. Simmons, Jr.
Santa Fe Institute

Miguel Virasoro
University of Rome,
"La Sapienza"

Gérard Weisbuch
Ecole Normale Supérieure

Michael Woodford
University of Chicago

Dedicated to the dissemination of practical information...

INTERNATIONAL JOURNAL OF NETWORK MANAGEMENT

EDITOR-IN-CHIEF

Gilbert Held
4-Degree Consulting
Macon, Georgia
USA

In a relatively short period of time networking options that most managers previously viewed in a dream or listed on a wish list have become a reality. New technology ranging from personal communicators and cellular telephones to high speed fiber-optic based transportation highways is out of the laboratory and available for use. When technological advances are added to recent and pending deregulation legislation we obtain the most dynamic communications environment witnessed by mankind.

EUROPEAN EDITOR

Ray Reardon
RANAR Ltd
Rowlands Castle
UK

Today 'choice' have replaced regulated monopolies in most countries. For persons involved in most aspects of network management, from testing circuits to designing networks, acquiring equipment or installing facilities, a new era is upon us.

ASSOCIATE EDITOR

R. Sarch
Marlin Consultant
Spring Valley
NY
USA

AIMS AND SCOPE

The *International Journal of Network Management* is dedicated to the dissemination of practical information which enables readers to manage, operate and maintain communications networks more effectively.

Articles and columns for the journal are selected with the intent to facilitate the reader's evaluation of equipment and systems, to provide a detailed understanding of performance issues, and to discuss the advantages and disadvantages of a variety of networking approaches that can be used to satisfy an organization's communications requirements.

The journal will:

- * examine a variety of internetworking problems and their solutions
- * investigate LAN connectivity methods, including performance constraints and implementation issues
- * probe the operation and utilization of performance analyzers, monitors and other types of communications test equipment
- * provide in-depth coverage of network management systems that operate on mainframes, minicomputers and microcomputers.

SUBSCRIPTION DETAILS

ISSN: 1055-7148 Volume 4 (1994) Quarterly
Institutional \$185.00 Personal \$80.00



For full subscription details and/or a free sample copy please write to either address:

Journals Subscription Department, John Wiley & Sons Ltd, Baffins Lane,
Chichester, West Sussex, PO19 1UD, England

Subscription Dept. C, John Wiley & Sons Inc, 605 Third Avenue, New York,
NY 10158, USA

ENVIRONMETRICS

Journal of the International
Environmetrics Society

EDITORS

A.H. EI-SHAARAWI
National Water Research Inst
Burlington
Ontario
Canada
L7R 4A6

I.B. MacNEILL
Dept of Statistical and
Actuarial Sciences
University of Western Ontario
Canada
N6A 5B7

P. YOUNG
Research on Environmental
Systems and Statistics Ctr
Institute of Environmental and
Biological Sciences
Lancaster University
LA1 4YQ
UK

AIMS AND SCOPE

Environmetrics is a multidisciplinary journal concerned with the development and application of statistical methodology in the environmental sciences. The scope covers a wide range of methodological topics including sampling design, statistical modelling, methods of data analysis and interpretation, statistical quality control, risk assessment, time series methods, multivariate analysis and other statistical methods with applications to such areas as:

- * water and air quality
- * regulation and control
- * waste management
- * transboundary pollution
- * health aspects of pollution
- * risk analysis
- * monitoring
- * field and laboratory quality control
- * climatic change

In addition to publishing significant research papers, *Environmetrics* publishes review and survey papers in the aforementioned areas and articles on algorithms and computer software relevant to environmetrics.

The International Environmetrics Society

The International Environmetrics Society (TIES) was formed in Cairo in 1989. It's objectives are to foster the development and use of statistical and other quantitative methods in the environmental sciences, environmental engineering and environmental monitoring and protection. To this end, the Society promotes the participation of statisticians, mathematicians, scientists and engineers in the solution of environmental problems and emphasises the need for collaboration and for clear communication between individuals from different disciplines and between researchers and practitioners. The Society further promotes these objectives by conducting meetings and producing publications, and by encouraging a broad membership of statisticians, mathematicians, engineers, scientists and others interested in furthering the role of statistical and mathematical techniques in service to the environment.

SUBSCRIPTION DETAILS

ISSN: 1180-4009 Volume 5 (1994) 4 Issues
Institutional: \$275.00, Personal: \$100.00, TIES Member: \$80.00

(Personal subscriptions must be paid out of personal funds and mailed to a private address.)

For full subscription details and/or a free sample copy please write to:

Journals Subscription Department, John Wiley & Sons Ltd,
Baffins Lane, Chichester, West Sussex, PO19 1UD, England



WILEY



JOHN WILEY & SONS LIMITED

WILEY JOURNAL AUTHOR PUBLISHING AGREEMENT

John Wiley & Sons, Ltd requires a grant of copyright from authors of articles contributed to our journals in order to effectively publish and distribute these journals worldwide. Therefore, we ask you to confirm your acceptance of the following terms by signing and returning this agreement to us:

1. The undersigned (individually or collectively the "Author") hereby assigns to John Wiley & Sons, Ltd (the "Publisher") for the full term of copyright, the sole and exclusive rights in the whole copyright in and to the article entitled _____
 _____ (the "Article")
 for initial publication in the journal entitled _____

_____ (the "Journal"). This grant of rights includes, but is not limited to, the rights to republish and use the Article and the material contained therein, throughout the world, in all languages and in all media of expression now known or later developed, and to license or permit others to do so.

2. The Publisher will not withhold permission for any reasonable request from the Author to use material from the Article in connection with any other work by the Author, except for inclusion of all or a substantial part of the Article in a competing publication, provided the material appears with an appropriate credit to the Publisher and to the Journal and with copyright notice as set forth in the Journal. Such permission must be obtained from the Publisher in writing and in advance.
3. If the Article was written by the Author in the course of employment, the employer shall sign this agreement in the space provided below.
4. Any proprietary rights other than copyright (e.g. patent rights) are retained by the Author or the employer, as applicable.
5. If the Author is a U.S. government employee *and* this Article was prepared as part of his/her official duties, the Article will constitute a "U.S. Government Work" not protected by copyright in the U.S., but protectable outside the U.S. In such case, this assignment applies only outside the U.S. (If applicable, please mark the appropriate box provided below.) *Note:* If at least one co-Author is *not* a government employee, it is not a U.S. Government Work and said co-Author should sign this agreement.
6. In case of work prepared under U.S. Government contract, if the contract so requires the U.S. Government may reproduce, royalty free, all or portions of the Article and may authorise others to do so, for official U.S. Government purposes only. (If applicable, please mark the appropriate box provided below and attach a copy of the relevant contract.)
7. The Author warrants that the Article is the Author's original work and has not been published before. If excerpts from copyrighted works or illustrations provided by others are included, the Author will obtain written permission from the copyright owners and show credit to the sources in the manuscript. The Author also warrants that he or she has the right to enter into this Agreement, the Article contains no libelous or unlawful statements, contains no instructions that may cause harm or injury, and does not violate the copyright or trademark, or infringe on the rights or the privacy of others; and that all statements in the Article asserted as fact are either true or are based upon reasonable research.
8. If the article was prepared jointly by more than one Author, the Author warrants that he or she has been authorised by all co-Authors to sign on their behalf.
9. If the Article is accepted, publication in the Journal is deemed to constitute consideration. In addition, the Publisher will furnish the Author with a number of free copies of the Article, in accordance with its current applicable policies. If the Article is rejected, this assignment is null and void.

AGREED:

(Author)

Date _____

(Employer (if applicable))

Date _____

U.S. Government Employee

U.S. Government Contract attached



EUROPEAN REVIEW

EDITOR-IN-CHIEF

Arnold Burgen
Department of Pharmacology
Tennis Court Road
University of Cambridge
Cambridge, CB2 1QJ
UK

ASSOCIATE EDITORS

Robert Cahn

Cambridge University, Department of Material Sciences and Metallurgy, Pembroke Street,
Cambridge, CB2 1QZ, UK

Kjell Härnqvist

Sveagatan 9, S413 14 Gothenburg, Sweden

Alexis Jacquemin

16, Avenue Ptolémée, 1180 Brussels, Belgium

Henri Korn

Institut Pasteur, Laboratoire de Neurobiologie Cellulaire, Inserm U.261, 25 rue du Dr Roux,
75015 Paris, France

Ernst Mestmäcker

Max-Planck-Institute für Ausländisches und Internationales Privatrecht, Mittelweg 187,
2000 Hamburg 13, Germany

Henk Wesseling

Institute for the History of European Expansion, PO Box No 9515, 2300 RA Leiden,
The Netherlands

Barbara Wright

Trinity College, Department of French, Arts Building, Dublin, Ireland

AIMS AND SCOPE

The *European Review* is an *Interdisciplinary Review Journal* of the *Academia Europaea*. The contents reflect the broad range of disciplines included within the *Academia*, as well as its comprehensive European membership. The review will thus include articles covering a wide range of topics written so as to make them accessible to readers from other disciplines. Each issue will include a special section focused on a particular topic. The articles will be by authors mostly located in Europe and some will relate to specifically European questions.

Authorship is in no way restricted to members of the *Academia Europaea* and the Editors welcome submissions.

ACADEMIA EUROPAEA

The *Academia Europaea* was established in 1988 to bring together scholars from across Europe, East and West, of all academic disciplines. It has already proved to be an admirable medium for tackling problems on a Europe wide basis and especially on an interdisciplinary basis—bringing together scholars from disciplines that would be unlikely to meet otherwise. It organizes symposia at annual meetings which move around Europe and which have covered subjects like the Rights of Minority Groups, the Image of Science, the Study of the Human Genome, Population Migration, and the Search for Meaning in Contemporary Life. It has also established study groups, the first of which has published its findings in a book on 'Schooling in Contemporary European Society'. Other studies are in progress on Problems of Youth in a Changing Europe, Energy Forecasting, Higher Education, Teaching Science in Schools, Social Aspects of Science Policy, and the Idea of Progress.

It can be seen that the *Academia Europaea* has a wide perspective and this is reflected in this Review.

The *Academia* is an independent organization based in London.



WILEY

Chichester, New York, Brisbane, Toronto, Singapore

EURREK 2 1-312 (1994)

Copyright © 1994 John Wiley & Sons, Ltd.

COPYING OF ARTICLES

The code and the copyright notice appearing at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients, on the condition that the copier pay for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The per-copy fee is to be paid through the Copyright Clearance Center Inc. and details of their authorization schemes can be obtained from them at 27 Congress Street, Salem, MA 01970, U.S.A. Tel: (508) 744-3350, Fax: (508) 745-9379. The consent does not extend to other kinds of copying such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Such permission requests, or other inquiries should be addressed to the publisher.

Typeset in the U.K. by KEYWORD Publishing Services Ltd, London
Printed and bound in Great Britain by BPC Wheatons Ltd, Exeter

Contents of volume 2

VOLUME 2 NUMBER 1

JANUARY 1994

Can There be a European Law? E.-J. MESTMÄCKER.....	1
How Organisms Are Put Together A. GARCÍA-BELLIDO	15
Parallels in Nerve and Muscle Research A. F. HUXLEY.....	23
Universities and Industry S. STRÖMHÖLM	31
The Origins of Pergamon Press: Rosbaud and Maxwell R. W. CAHN.....	37
FOCUS—Issues for Science and Society	
Introduction—Issues for Science and Society A. JACQUEMIN.....	45
The Policy Agenda: Challenges for the New Europe M. SHARP	47
Co-operation in R&D, Efficiency and European Policy A. JACQUEMIN AND L. SOETE.....	65
Europe's Unemployment Problem J. DRÈZE	73
What Is Scientific Literacy? J. DURANT	83

Indexed or abstracted by 'GEOBASE', 'Geographical Abstracts: Human Geography'

VOLUME 2 NUMBER 2

APRIL 1994

New Perspectives on Ancient Science G. LLOYD	91
The Awareness of Global Climatic and Environmental Change H. OESCHGER	99
Book Review: A Vision of the Brain	117

FOCUS—Structure of the Universe

Introduction A. BURGEN	123
Scientific Accounts of the Universe from Antiquity to Kepler O. PEDERSEN	125
The Explosion of the Horizons J.-C. PECKER	141
The Emergence of Complex Structure in Astronomy B. GUSTAFSSON	149
Cosmology: Evidence for a 'Big Bang' M. J. REES	155
Observations which Contradict the Hypothesis of a Big Bang Universe H. ARP	165
Discussion	173

VOLUME 2 NUMBER 3

JULY 1994

Poetics Now? M. DAVIES-MITCHELL	177
Scandinavian Realism S. STRÖMHÖLM	193
The Return of the Jews to Spain J. L. LACAVE	201
Book Review: The European Challenges Post-1992: Shaping Factors, Shaping Actors	207

FOCUS—Two *Fin de Siècles*

Two <i>Fin de Siècles</i> H. L. WESSELING	213
--	-----

The <i>Fin de Siècles</i> in Literature J. NEUBAUER	221
Salome: A <i>Fin de Siècle</i> Legend B. WRIGHT	233
Nationalism in the <i>Fin de Siècle</i> Habsburg Monarchy A. SKED	239

VOLUME 2 NUMBER 4

OCTOBER 1994

Violence Against Parents in Swedish Peasant Society B. ODÉN	247
Precious Metals and Mining in the New World, 1500–1800 K. N. CHAUDHURI	261
Biological Evidence of Past Environments and Climatic Changes J. R. PILCHER	271
Book Review: A Critique of German Intelligentsia K. VON BEYME	279

FOCUS—The Classical Heritage

Classical Antiquity in Contemporary Europe W. LUDWIG	283
The Tradition of Roman Law in Europe P. STEIN	289
Material Values Past and Present M. VICKERS	295
Latin in Poland and East-central Europe: Continuity and Discontinuity J. AXER	305

NOTES FOR CONTRIBUTORS

1. The original and two copies of a manuscript submitted for publication should be sent to the Editor, Sir Arnold Burgen, Department of Pharmacology, Tennis Court Road, Cambridge, CB2 1QJ, UK. The Author's full postal address, as well as telephone, telex and fax numbers where available, should appear on the manuscript.
2. The language of the Review is English and only original papers, not published elsewhere, will be accepted. The copyright must be assigned to the Publisher by filling in the Publishing Agreement form which will be sent to the prospective author.
3. Manuscripts are to be typed double-spaced, with wide top and side margins, on one side of the paper only. Authors are advised to keep one copy of their manuscript for reference. A summary of 100–150 words should be provided.
4. Accepted papers should be provided on disk if possible. Two identical disk copies of the final version of the paper should be accompanied by a hard copy. If the disk and the hard copy differ, the hard copy will be used as the definitive version. The disks must be labelled with a six letter acronym representing the journal title (3) and the author's name (3), for example, EURWAC. The label should also include the date, author's name, hardware and software used. Most software is acceptable but WordPerfect, Word or Tex are best.

If there is artwork provided on the disk, please include the source file as well as the encapsulated PostScript file. Name each file carefully using the same code as for the text, for example, EURWACF01. If you have any questions, please ring the Journal Production department of John Wiley & Sons, Ltd.
5. The title should be brief. It should appear on a separate sheet, with the Author's name typed on the line below the title.
6. The papers should be subdivided into sections and, if necessary, subsections. Authors should submit a brief autobiography of 75–100 words along with the paper.
7. Mathematical symbols may be hand-written or typed: Greek letters and unusual signs should be identified separately in the margin. Distinction should be made between letter O and zero; between letter I and number 1 and prime. All abbreviations should be preceded the first time they appear by the full name. Boldface, spacing, and italics for emphasis are to be avoided; the latter are to be used, though, for words taken over from other languages and not integrated in the language of the text.
8. Half-tone illustrations are to be restricted in number to the minimum necessary. Good glossy bromide prints should accompany the manuscript and should not be attached to manuscript pages.
9. Figures and tables are to be numbered consecutively and placed on separate sheets, with their place in the running text indicated therein. Original outline drawings (not photocopies) should be provided. Drawings should be of about twice the final size; the lettering must be clear and large enough for proportionate reduction. Figure legends should be typed on a separate sheet and placed at the end of the manuscript.
10. Footnotes are to be held to a minimum; parentheses in the text are to be preferred. Footnotes are not to be used for bibliographical references.
11. References to published literature should be quoted in the text by superior numbers and grouped together at the end of the paper in numerical order. Journal references should be arranged thus:
 1. F. Fukuyama, 'The End of History', *The National Interest*, **16**, 3–19 (1989).Book references should be as follows:
 2. J. Cadwell, *Theory of Fertility Decline*, Academic Press, London, 1982.For many articles submitted to the publication, it may be more useful to provide a short bibliography under the heading 'Further Reading'.
12. No manuscript or illustration will be returned following publication unless a request for return is made at the time when the manuscript is submitted.
13. Page proofs are sent to authors for the correction of printers' errors; alterations of the text will not be accepted. Corrected proofs should be returned to the Publisher within 48 hours of receipt.
14. Twenty-five offprints of the paper and one copy of the Journal issue in which it appears will be provided to the Author free of charge. Additional copies of the article and the Journal may be purchased from the Publisher on an offprint order form supplied with the proofs.
15. It is the Author's responsibility to obtain written permission to quote material which has appeared in another publication.

COPYING OF ARTICLES

The code and the copyright notice appearing at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients, on the condition that the copier pay for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The per-copy fee is to be paid through the Copyright Clearance Center Inc. and details of their authorization schemes can be obtained from them at 27 Congress Street, Salem, MA 01970, U.S.A. Tel: (508) 744-3350, Fax: (508) 745-9379. The consent does not extend to other kinds of copying such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Such permission requests, or other inquiries should be addressed to the publisher.

Contents

VOLUME 2 NUMBER 4

OCTOBER 1994

Violence Against Parents in Swedish Peasant Society B. ODÉN	247
Precious Metals and Mining in the New World, 1500–1800 K. N. CHAUDHURI.....	261
Biological Evidence of Past Environments and Climatic Changes J. R. PILCHER	271
Book Review: A Critique of German Intelligentsia K. VON BEYME.....	279
 FOCUS—The Classical Heritage	
Classical Antiquity in Contemporary Europe W. LUDWIG.....	283
The Tradition of Roman Law in Europe P. STEIN	289
Material Values Past and Present M. VICKERS	295
Latin in Poland and East-central Europe: Continuity and Discontinuity J. AXER	305



1062-7987(199410)2:4;1-P