

INSTRUCTIONS TO AUTHORS

A. General

In upper right corner of title page **write by hand** "For CMP".

Manuscripts should be submitted in duplicate. They should preferably be written in English; papers in French or German are also accepted.

Manuscripts must be in their **final form**, typed on one side of each sheet only, with double spacing and wide margins. Formulae should be typewritten whenever possible. Mimeographed copies are not acceptable unless clearly legible.

Please include a "Note for the Printer" explaining markings used. See suggestion overleaf.

To speed up publication, authors will receive **only one set of proofs**: provisionally numbered page proofs. Authors are requested to **correct typographical errors only**; they will be charged for corrections involving changes, additions or deletions to the original manuscript.

Diagrams should be submitted on separate sheets, not included in the text. They should be drawn in Indian ink in clean uniform lines, the whole about twice the size of the finished illustration. Inscriptions should allow for the figure 1, for example, to be about 2 mm high in the final version (i.e. 4 mm for reduction $\times \frac{1}{2}$). The author should mark in the margin of the manuscript where diagrams may be inserted.

Footnotes, other than those which refer to the title heading, should be numbered consecutively and placed at the foot of the page to which they refer (not at the end of the article).

Please give on the first page of the manuscript a **running head** (condensed title), which should not exceed 70 letters including spaces.

References to the literature should be listed at the end of the manuscript. The following information should be provided for **journal articles**: names and initials of all authors, name of the journal, volume, first and last page numbers and year of publication. References to **books** should include name(s) of author(s), full title, edition, place of publication, publisher and year of publication.

Examples

Bombieri, E., Giusti, E.: Inventiones math. **15**, 24–46 (1971)

Tate, J. T.: *p*-Divisible groups. In: Proceedings of a conference on local fields, pp. 158–183. Berlin, Heidelberg, New York: Springer 1967

Authors of this journal can benefit from library and photocopy fees collected by VG WORT if certain conditions are met. If an author lives in the Federal Republic of Germany or in West Berlin, it is recommended that he contact Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestrasse 49, D-8000 München 2, for detailed information.

B. Marking

1. Text

The words “**Theorem**”, “**Lemma**”, “**Corollary**”, “**Proposition**” etc. are normally printed in **boldface**, followed by the formulation in italics (to be underlined in the manuscript).

The words “*Proof*”, “*Remark*”, “*Definition*”, “*Note*” etc. are printed in *italics* with the formulation in ordinary typeface.

Words or sentences to be set in italics should be marked by single underlining.

2. Formulae

Letters in formulae are normally printed in italics, figures in ordinary typeface.

It will help the printer if in doubtful cases the position of indices and exponents is marked thus: $b_{\hat{A}}$, $a^{\hat{V}}$. Spacing of indices and exponents must be specially indicated ($A_m{}^n{}_m$) otherwise they will be set ($A_m{}^{nm}$).

Underlining for special alphabets and typefaces should be done according to the following code:

single underlining:	small letter
double underlining:	capital letter
brown:	boldface headings, boldface letters in formulae
yellow:	upright
	(abbreviations e.g. Re, Im, log, sin, ord, id, lim, sup, etc.)
red:	Greek
blue:	Gothic
green:	Script
violet:	the numeral 1, and zero (to distinguish them from the small letter l and the capital letter O)

The following are frequently confused:

\cup , \mathbf{U} , \bigcup , U ; \circ , o , O , 0 ; \times , x , κ ; \vee , v , v ; θ , Θ , ϕ , φ , Φ , \emptyset ; ψ , Ψ ; ε , \in ;
a' , a^1 ; the symbol a and the indefinite article a ;
also the handwritten Roman letters:
c , C ; e , l ; I , J ; k , K ; o , O ; p , P ; s , S ; u , U ; v , V ; w , W ; x , X ; z , Z ;

Please take care to distinguish them in some way.

C. Examples

1. Special alphabets or typefaces

Script	$\mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{J}, \mathcal{K}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{S}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}$
Sanserif	$a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$
Gothic	$\mathfrak{A}, \mathfrak{B}, \mathfrak{C}, \mathfrak{D}, \mathfrak{E}, \mathfrak{F}, \mathfrak{G}, \mathfrak{H}, \mathfrak{I}, \mathfrak{J}, \mathfrak{K}, \mathfrak{L}, \mathfrak{M}, \mathfrak{N}, \mathfrak{O}, \mathfrak{P}, \mathfrak{Q}, \mathfrak{R}, \mathfrak{S}, \mathfrak{T}, \mathfrak{U}, \mathfrak{V}, \mathfrak{W}, \mathfrak{X}, \mathfrak{Y}, \mathfrak{Z}$
Boldface	$\mathbf{A}, \mathbf{B}, \mathbf{C}, \mathbf{D}, \mathbf{E}, \mathbf{F}, \mathbf{G}, \mathbf{H}, \mathbf{I}, \mathbf{J}, \mathbf{K}, \mathbf{L}, \mathbf{M}, \mathbf{N}, \mathbf{O}, \mathbf{P}, \mathbf{Q}, \mathbf{R}, \mathbf{S}, \mathbf{T}, \mathbf{U}, \mathbf{V}, \mathbf{W}, \mathbf{X}, \mathbf{Y}, \mathbf{Z}$
Special Roman	$\mathbb{A}, \mathbb{B}, \mathbb{C}, \mathbb{D}, \mathbb{E}, \mathbb{F}, \mathbb{G}, \mathbb{H}, \mathbb{I}, \mathbb{J}, \mathbb{K}, \mathbb{L}, \mathbb{M}, \mathbb{N}, \mathbb{O}, \mathbb{P}, \mathbb{Q}, \mathbb{R}, \mathbb{S}, \mathbb{T}, \mathbb{U}, \mathbb{V}, \mathbb{W}, \mathbb{X}, \mathbb{Y}, \mathbb{Z}, \mathbb{I}$
Greek	$\Gamma, \Delta, \Theta, \Lambda, \Xi, \Pi, \Sigma, \Phi, \Psi, \Omega$

2. Notations

preferred form	instead of	preferred form	instead of
$A^*, \tilde{b}, \gamma', \mathbf{v}$	$\bar{A}, \hat{b}, \check{\gamma}, \vec{v}$	$f: A \rightarrow B$	$A \xrightarrow{f} B$
lim sup, lim inf	$\overline{\lim}, \underline{\lim}$		
inj lim, proj lim	$\overrightarrow{\lim}, \overleftarrow{\lim}$	$\cos(1/x)$	$\cos \frac{1}{x}$
$\exp(-(x^2 + y^2)/a^2)$	$e^{-\frac{x^2+y^2}{a^2}}$	$\frac{(a+b/x)^{1/2}}{\sqrt{a+\frac{b}{x}}}$	
f^{-1}	$\overset{-1}{f}$		

Applied Mathematics and Optimization
Applied Physics
A: Solids and Surfaces
B: Photophysics and Laser Chemistry
Archiv für Elektrotechnik
Archive of Electrical Engineering
Archive for History of Exact Sciences
Archive for Rational Mechanics and Analysis
Archives of Environmental Contamination and Toxicology
Archives of Microbiology
Astronomy and Astrophysics
Bauingenieur
Zeitschrift für das gesamte Bauwesen
Behavioral Ecology and Sociobiology
Biological Cybernetics
Communication and Control in Organisms and Automata
Biophysics of Structure and Mechanism
Bulletin of Environmental Contamination and Toxicology
Carlsberg Research Communications
Chromosoma
Communications in Mathematical Physics
Contributions to Mineralogy and Petrology
Coral Reefs
Journal of the International Society for Reef Studies
Current Genetics
Eukaryotes with Emphasis on Yeasts · Fungi · Mitochondria · Plastids
Current Microbiology
Differentiation
Environmental Geology
Environmental Management
An International Journal for Decision-Makers and Scientists
European Journal of Applied Microbiology and Biotechnology
European Journal of Biochemistry
Fresenius' Zeitschrift für Analytische Chemie
Geochimica
Holz als Roh- und Werkstoff
Informatik-Spektrum
Ingenieur-Archiv
Archive of Applied Mechanics
Inventiones mathematicae
Irrigation Science
Journal of Comparative Physiology
A: Sensory, Neural, and Behavioral Physiology
B: Biochemical, Systemic, and Environmental Physiology
Journal of Geophysics/
Zeitschrift für Geophysik
Journal of Mathematical Biology
Journal of Molecular Evolution
Journal of Plant Growth Regulation
Konstruktion
Zeitschrift für Konstruktion und Entwicklung im Maschinen-, Apparate- und Gerätebau
manuscripta mathematica
Marine Biology
International Journal on Life in Oceans and Coastal Waters
The Mathematical Intelligencer
Mathematical Systems Theory
Mathematische Annalen
Mathematische Zeitschrift
Metrologia
International Journal of Scientific Metrology
Microbial Ecology
Mineralium Deposita
International Journal of Geology, Mineralogy, and Geochemistry of Mineral Deposits
MGG Molecular & General Genetics
Die Naturwissenschaften
Numerische Mathematik
Oceanologica et Limnologia Sinica
Oecologia
OR-Spektrum
Operations Research-Spektrum

Springer Journals keeping you in pace with science.

Springer journals are known and respected internationally for keeping professionals in science and in medicine, in research and in industry well-informed about the rapid progress in their fields. Decide for yourself by sending in one of the order coupons.

To: **The Head Librarian/The Library Committee**

From: _____

Department: _____

- I/we have studied the Springer Journal(s)

- and recommend that the journal(s) be purchased for the Main/Department Library
- I/we would like to see the Springer Journals Catalog with information on subscriptions/back volumes/microform
- Please obtain sample copies on other related Springer Journals and/or latest index/sample copy including volume-index

SUBSCRIPTION ORDER FORM

SPRINGER-VERLAG BERLIN HEIDELBERG NEW YORK

Please order through your bookseller:

or Springer-Verlag, P.O. Box 105 280, D-6900 Heidelberg,
(All countries except North America)
or (North America) Springer-Verlag New York Inc.,
175 Fifth Avenue, New York, NY 10010, USA
North America subscriptions are entered with prepayment only.

- Please enter my/our subscription to (please give title or ISSN)

Full subscription information is given on inside front or back cover page

Name: _____

Address: _____

Date/Signature: _____

- This is a new order This is a renewal order

Please send a sample copy of

Please send information concerning

- back volumes microform editions journals catalog



To the bookseller

To: The Head Librarian/The Library Committee

Physics and Chemistry of Minerals
Plant Cell Reports
Planta
Polar Biology
Polymer Bulletin
Public International Law
Radiation and Environmental
Biophysics
Roux's Archives of Developmental Biology
Semigroup Forum
Sicherheit in Chemie und Umwelt
Zeitschrift zum Handbuch der
gefährlichen Güter
Siemens Forschungs- und Entwicklungs-
berichte/Research and Development
Reports
Theoretica Chimica Acta
An International Journal of
Theoretical Chemistry
TAG Theoretical and Applied Genetics
International Journal of Breeding
Research and Cell Genetics
Wärme- und Stoffübertragung/
Thermo- and Fluid Dynamics
Werkstatttechnik-wt
Zeitschrift für industrielle Fertigung
Wood Science and Technology
Zeitschrift für Lärmbekämpfung
Zeitschrift für Lebensmittel-Untersuchung
und -Forschung
Zeitschrift für Physik A
Atoms and Nuclei
Zeitschrift für Physik B
Condensed Matter
Zeitschrift für Physik C
Particles and Fields
Zeitschrift für Wahrscheinlichkeitstheorie
und verwandte Gebiete
Probability Theory and Stochastics
Zentralblatt für Mathematik und ihre
Grenzgebiete/Mathematics Abstracts
Abstracts and Reviews from Zentralblatt
für Mathematic/Mathematics Abstracts:
Number Theory
Partial Differential Equations
Probability and Stochastic Processes
Geometry
Topology
Real Analysis
Numerical Analysis
Zoomorphology



Springer-Verlag
Berlin
Heidelberg
New York

OR Spektrum

Operations Research-Spektrum

Organ der Deutschen Gesellschaft für
Operations Research

Hauptherausgeber/Managing Editor: Prof. Dr. Helmut Späth, Universität Oldenburg, Fachbereich Mathematik, Postfach 2503, D-2900 Oldenburg, F.R.G.

Herausgeber/Editors: Prof. Dr. A. Bachem, Erlangen-Nürnberg; Prof. Dr. W. Bühler, Dortmund; Prof. Dr. U. Eckhardt, Hamburg; Prof. Dr. B. Fleischmann, Hamburg; Prof. Dr. D.B. Pressmar, Hamburg; Prof. Dr. H. Schellhaas, Darmstadt; Prof. Dr. Ch. Schneeweiß, Mannheim; Prof. Dr. J. Schwarze, Braunschweig.

Als Organ der Deutschen Gesellschaft für Operations Research (DGOR) soll das OR-Spektrum von der Vielfalt der Richtungen profitieren, die in der DGOR vertreten sind. Die Zeitschrift wendet sich an alle im Bereich des Operations Research tätigen Personen. Ihr Orientierungspunkt liegt in dem Ziel, einen Beitrag zur Bewältigung realer Planungsaufgaben zu leisten. Das OR-Spektrum veröffentlicht Forschungsbeiträge in deutscher und englischer Sprache, die sich auf den gesamten Modellbildungs-, Lösungs- und Implementierungsprozeß beziehen.

Neben entsprechenden Originalarbeiten prägen Übersichtsartikel, Fallstudien und Berichte über OR-Software das Gesicht der Zeitschrift. Mit diesem Konzept wird ein breiter Kreis der am OR interessierten Personen ange- sprochen; ebenso bietet sich dem in der internationalen Forschung stehenden Wissenschaftler ein geeignetes Forum.

As the official publication of the German Society for Operations Research (DGOR), OR-Spektrum benefits from the diversity of interests represented within the society. The journal is addressed to all persons working in operations research and its overall aim is to contribute to the effective handling of real planning tasks.

OR-Spektrum publishes, in German or in English, research papers relating to the whole process of model building, problem solving, and implementation. In addition to original research papers, survey papers, case studies, and reports on OR software distinguish the journal. The concept has wide appeal among those interested in operations research. The international community of scientists researching in this field also finds the journal a suitable forum.

Bezugsbedingungen/Subscription Information:

1982. Volume 4 (4 issues).

DM 106,- (zuzügl. Porto und Versandgebühren).

Postage and handling not included.

Prices are valid for all countries except North America.

Sample copies available.



Springer-Verlag
Berlin
Heidelberg
New York

Communications in **Mathematical Physics**

Chief Editor A. Jaffe, Cambridge, MA

Editorial Board H. Araki, Kyoto
 J. Glimm, New York, NY
 R. Haag, Hamburg
 O. Lanford, Berkeley, CA
 J. L. Lebowitz, New Brunswick, NJ
 E. Lieb, Princeton, NJ
 J. Moser, Zürich
 K. Osterwalder, Zürich
 B. Simon, Pasadena, CA
 Ya. G. Sinai, Moscow
 T. Spencer, New York, NY
 R. Stora, Geneva
 S.-T. Yau, Princeton, NJ

Advisory Board M. F. Atiyah, Oxford
 A. Connes, Bures-sur-Yvette
 S. Hawking, Cambridge
 G. 't Hooft, Utrecht
 I. Singer, Berkeley, CA
 C. N. Yang, Stony Brook, NY

Responsible for advertisements

Springer-Verlag
Printers
Printed in Germany

E. Lückermann, G. Sternberg, Kurfürstendamm 237, D-1000 Berlin 15
Telephone: (030) 8821031, Telex 01-85411
Berlin Heidelberg New York
Brühlsche Universitätsdruckerei, Giessen
© Springer-Verlag GmbH & Co. KG Berlin Heidelberg 1981
Das Heft enthält eine Beilage des Springer-Verlages
Berlin Heidelberg New York