

## 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:  $b_{\delta}$ ,  $a^{\check{V}}$ . Spacing of indices and exponents must be specially indicated ( $A_m^n$ ) otherwise they will be set ( $A_{mn}^m$ ).

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:	<b>the numeral 1, and zero (to distinguish them from the small letter <i>l</i> and the capital letter <i>O</i>)</b>

The following are frequently confused:

$\cup, \mathbf{u}, \bigcup, U; \circ, o, O, 0; \times, x, X, \kappa; \vee, v, \nu; \theta, \Theta, \phi, \varphi, \Phi, \emptyset; \psi, \Psi; \varepsilon, \epsilon;$

$a', a^1;$  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	<i>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</i> <i>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</i>
Sanserif	<b>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</b> <b>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</b>
Gothic	<b>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</b> <b>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</b>
Boldface	<b>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</b> <b>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</b>
Special Roman	<b>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, 1</b>
Greek	$\Gamma, \Delta, \Theta, \Lambda, \Xi, \Pi, \Sigma, \Phi, \Psi, \Omega$ $\alpha, \beta, \gamma, \delta, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \varphi, \phi, \chi, \psi, \omega$

### 2. Notations

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

Acta Informatica  
 Applied Mathematics and Optimization  
 Applied Physics  
 Archiv für Elektrotechnik  
 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  
 Behavioral Ecology and Sociobiology  
 Biological Cybernetics  
 Biophysics of Structure and Mechanism  
 Bulletin of Environmental Contamination and Toxicology  
 Carlsberg Research Communications  
 Chromosoma  
 Communications in Mathematical Physics  
 Contributions to Mineralogy and Petrology  
 Current Genetics  
 Current Microbiology  
 Differentiation  
 Environmental Geology  
 Environmental Management  
 European Journal of Applied Microbiology and Biotechnology  
 European Journal of Biochemistry  
 Fresenius' Zeitschrift für Analytische Chemie  
 Holz als Roh- und Werkstoff  
 Informatik-Spektrum  
 Ingenieur-Archiv  
 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  
 The Journal of Membrane Biology  
 Journal of Molecular Evolution  
 Konstruktion im Maschinen-, Apparate- und Gerätebau  
 manuscripta mathematica  
 Marine Biology  
 The Mathematical Intelligencer  
 Mathematical Systems Theory  
 Mathematische Annalen  
 Mathematische Zeitschrift  
 Metrologia  
 Microbial Ecology  
 Mineralium Deposita  
 MGG Molecular & General Genetics  
 Die Naturwissenschaften  
 Numerische Mathematik  
 Oecologia  
 OR-Spektrum  
 Operations Research-Spektrum  
 Physics and Chemistry of Minerals  
 Planta  
 Polymer Bulletin  
 Public International Law  
 Radiation and Environmental Biophysics  
 Roux's Archives  
 of Developmental Biology  
 Semigroup Forum  
 Siemens Forschungs- und Entwicklungs-berichte/Research and Development Reports  
 Theoretica Chimica Acta  
 TAG Theoretical and Applied Genetics

## 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 Journal 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 and/or latest index/sample copy including volume-index (supply is limited):

Please send information concerning

back volumes     microform editions     journals catalog



To: The Head Librarian/The Library Committee

Postcard - Airmail

To the bookseller

Wärme- und Stoffübertragung/  
Thermo- and Fluid Dynamics  
Werkstattstechnik  
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  
Zoomorphology



Springer-Verlag  
Berlin  
Heidelberg  
New York

---

# Texts and Monographs in Physics

Editors: W. Beiglböck, M. Goldhaber, E.H. Lieb,  
W. Thirring

R. BASS

## Nuclear Reactions with Heavy Ions

1980. Cloth DM 88,-; approx. US \$52.00  
ISBN 3-540-09611-6

P. RING, P. SCHUCK

## The Nuclear Many-Body Problem

1980. Cloth DM 86,- approx. US \$50.80  
ISBN 3-540-09820-8

A. BÖHM

## Quantum Mechanics

1979. Cloth DM 58,-; approx. US \$34.30  
ISBN 3-540-08862-8

O. BRATELLI, D.W. ROBINSON

## Operator Algebras and Quantum Statistical Mechanics

Volume 1:  $C^*$  and  $W^*$ -Algebras. Symmetry  
Groups. Decomposition of States.  
1979. Cloth DM 68,-; approx. US \$40.20  
ISBN 3-540-09187-4

H.M. PILKUHN

## Relativistic Particle Physics

1979. Cloth DM 84,-; approx. US \$49.60  
ISBN 3-540-09348-6

M.D. SCADRON

## Advanced Quantum Theory and Its Applications through Feynman Diagrams

1979. Cloth DM 79,-; approx. US \$46.70  
ISBN 3-540-09045-2

R.D. RICHTMYER

## Principles of Advanced Mathematical Physics I

1978. Cloth DM 44,-; approx. US \$26.00  
ISBN 3-540-08873-3

R.M. SANTILLI

## Foundations of Theoretical Mechanics I: The Inverse Problem in Newtonian Mechanics

1978. Cloth DM 65,-; approx. US \$38.40  
ISBN 3-540-08874-1

J. KESSLER

## Polarized Electrons

1976. Cloth DM 65,-; approx. US \$38.40  
ISBN 3-540-07678-6

W. RINDLER

## Essential Relativity

*now in paperback*

Rev. print. of the 2nd ed. 1980.  
DM 38,-; approx. US \$22.50  
ISBN 3-540-10090-3

K. CHADAN, P.C. SABATIER

## Inverse Problems in Quantum Scattering Theory

1977. Cloth DM 67,60; approx. US \$40.00  
ISBN 3-540-08092-9

J.M. JAUCH, F. ROHRLICH

## The Theory of Photons and Electrons

2nd corrected printing of the  
2nd expanded ed. 1980.  
Cloth DM 45,-; approx. US \$26.60  
ISBN 3-540-07295-0

C. TRUESDELL, S. BHARATHA

## The Concepts and Logic Classical Thermodynamics as a Theory of Heat Engines

Rigorously Constructed upon the Foundation  
Laid by S. Carnot and F. Reech  
1977. Cloth DM 56,30; approx. US \$33.30  
ISBN 3-540-07971-8



Springer-Verlag  
Berlin Heidelberg New York

Communications in  
**Mathematical  
Physics**

Chief Editor A. Jaffe, Cambridge, MA

Editorial Board H. Araki, Kyoto  
Brézin, Saclay  
J. Ginibre, Orsay  
J. Glimm, New York, NY  
R. Haag, Hamburg  
J. L. Lebowitz, New Brunswick, NJ  
E. Lieb, Princeton, NJ  
J. Moser, Zürich  
K. Osterwalder, Zürich  
D. Ruelle, Bures-sur-Yvette  
B. Simon, Pasadena, CA  
Ya. G. Sinai, Moscow  
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  
C. N. Yang, Stony Brook, NY

Responsible for advertisements

Springer-Verlag  
Printers  
Printed in Germany

L. Siegel, Kurfürstendamm 237, D-1000 Berlin 15  
Telephone: (030) 8821031, Telex 01-85411  
Berlin Heidelberg New York  
Brühlsche Universitätsdruckerei, Giessen  
© Springer-Verlag Berlin Heidelberg 1981  
Das Heft enthält eine Beilage des Springer-Verlages  
Berlin Heidelberg New York