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: $b \uparrow$, $a \lor$. Spacing of indices and exponents must be specially indicated (A_{mn}^{n}) otherwise they will be set (A_{mn}^{n}) .

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

single underning.	silian 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
	and the capital letter O)

I

The following are frequently confused:

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

 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	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, 2, R, S, T, U, V, W, X, Y, L
	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, x
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
	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	U, B, C, D, E, F, G, H, I, J, R, L, M, N, D, P, Q, R, S, I, U, B, W, X, Y, J
	a, b, c, d, e, f, g, h, i, j, ť, l, m, n, o, p, q, r, s, f, t, u, v, w, x, ŋ, z
Boldface	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
	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
Special Roman	A, B, C, ID, E, F, G, H, I, J, K, IL, M, N, O, IP, Q, R, S, T, U, V, W, X, Y, Z, 1
Greek	$\Gamma, \Delta, \Theta, \Lambda, \Xi, \Pi, \Sigma, \Phi, \Psi, \Omega$
	α , β, γ, δ, ε, ζ, η, θ, θ, ι, κ, λ, μ, ν, ζ, ο, π, ρ, σ, τ, υ, φ , ϕ , χ , ψ , ω

2. Notations

preferred form	instead of	preferred form	instead of
$A^*, \tilde{b}, \gamma', \mathbf{v}$	$ar{A}, ar{b}, ar{\gamma}, ec{v}$	$f: A \to B$	$A \xrightarrow{f} B$
lim sup, lim inf	lim, <u>lim</u>		
ınj lim, proj lim	lim, lim		$\cos \frac{1}{x}$
$\exp\bigl(-(x^2+v^2)/a^2\bigr)$	$e^{-\frac{x^2+y^2}{a^2}}$	$\frac{\cos(1/x)}{(a+b/x)^{1/2}}$	$\frac{x}{\sqrt{a+b}}$
f^{-1}	\int_{f}^{-1}		$\sqrt{a+\frac{1}{x}}$

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 Mechanis Bulletin of Environmental Contamination and Toxicology Carlsberg Research Communications** Chromosoma **Communications in Mathematical** Physics **Contributions to Mineralogy and Petr 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-, Appara und Geräteban 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 Entwicklung 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 Journa 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

Ŵ

 \Box back volumes \Box microform editions \Box 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



Ŵ

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

Contents: Introduction.— Light Scattering Systems.— Quasi-Elastic Scattering from Heavier Target Nuclei.— General Aspects of Nucleon Transfer.— Quasi-Elastic Transfer Reactions.— Deep-Inelastic Scattering and Transfer.— Complete Fusion.— Compound-Nucleus Decay.— Appendices.

P. RING, P. SCHUCK The Nuclear Many-Body Problem 1980. Cloth DM 86,-; approx. US \$50 80 ISBN 3-540-09820-8

Contents: The Liquid Drop Model. – The Shell Model. – Rotation and Single-Particle Motion. – Nuclear Forces. – The Hartree-Fock Method. – Pairing Correlations and Suprafluid Nuclei – The Generalized Single-Particle Model (HFB Theory). – Harmonic Vibrations. – Boson Expansion Methods. – The Generator Coordinate Method. – Restoration of Broken Symmetries. – The Time Dependent Hartree-Fock Method (TDHF). – Semiclassical Methods in Nuclear Physics. – Appendices. – Bibliography. – Author Index – Subject Index.

A. BÒHM 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. 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

Second Edition 1977. Cloth DM 67,70; approx. US \$40.00 ISBN 3-540-07970-X

K. CHADAN, P.C. SABATIER Inverse Problems in Quantum Scattering Theory 1977. Cloth DM 67,70; approx. US \$40 00 ISBN 3-540-08092-9

J.M. JAUCH, F. ROHRLICH The Theory of Photons and Electrons Second Expanded Edition 1976 Cloth DM 45,-; approx. US \$26.60 ISBN 3-540-07295-0

C. TRUESDELL, S. BHARATHA The Concepts and Logic of 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



5529/5/1/a

Communications in Mathematical **Physics**

Chief Editor A. Jaffe, Cambridge, MA

Editorial Board

H. Araki, Kyoto

E. Brézin, Saclay

R. Geroch, Chicago, IL

J. Ginibre, Orsav

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

Advisory Board

M. F. Atiyah, Oxford G. 't Hooft, Utrecht

C. N. Yang, Stony Brook, NY

S. T. Yau, Princeton, NJ

Responsible for advertisements

Springer-Verlag Printers

L. Siegel, Kurfürstendamm 237, D-1000 Berlin 15 Telephone: (030) 8821031, Telex 01-85411 Berlin Heidelberg New York Brühlsche Universitätsdruckerei. Giessen