INSTRUCTIONS TO AUTHORS

A. General

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

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: $b_{\uparrow}$, $a^{\downarrow}$. Spacing of indices and exponents must be specially indicated ($A_m{}^n{}_n{}^m$) otherwise they will be set (A_{mn}^{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, X, κ; $\vee$, v, ν; $\theta, \Theta, \phi, \varphi, \Phi, \emptyset$; ψ, Ψ; $\varepsilon, \in$;

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	$\mathscr{A}, \mathscr{B}, \mathscr{C}, \mathscr{D}, \mathscr{E}, \mathscr{F}, \mathscr{G}, \mathscr{H}, \mathscr{I}, \mathscr{J}, \mathscr{K}, \mathscr{L}, \mathscr{M}, \mathscr{N}, \mathscr{O}, \mathscr{P}, \mathscr{Q}, \mathscr{R}, \mathscr{S}, \mathscr{T}, \mathscr{U}, \mathscr{V}, \mathscr{W}, \mathscr{X}, \mathscr{Y}, \mathscr{Z}$ $a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$
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	$\mathfrak{A}, \mathfrak{B}, \mathfrak{C}, \mathfrak{D}, \mathfrak{E}, \mathfrak{F}, \mathfrak{G}, \mathfrak{H}, \mathfrak{I}, \mathfrak{J}, \mathfrak{K}, \mathfrak{L}, \mathfrak{M}, \mathfrak{N}, \mathfrak{O}, \mathfrak{P}, \mathfrak{Q}, \mathfrak{R}, \mathfrak{S}, \mathfrak{T}, \mathfrak{U}, \mathfrak{V}, \mathfrak{W}, \mathfrak{X}, \mathfrak{Y}, \mathfrak{Z}$ $\mathfrak{a}, \mathfrak{b}, \mathfrak{c}, \mathfrak{d}, \mathfrak{e}, \mathfrak{f}, \mathfrak{g}, \mathfrak{h}, \mathfrak{i}, \mathfrak{j}, \mathfrak{k}, \mathfrak{l}, \mathfrak{m}, \mathfrak{n}, \mathfrak{o}, \mathfrak{p}, \mathfrak{q}, \mathfrak{r}, \mathfrak{s}, \mathfrak{t}, \mathfrak{u}, \mathfrak{v}, \mathfrak{w}, \mathfrak{x}, \mathfrak{y}, \mathfrak{z}$
Boldface	**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	$\mathbb{A}, \mathbb{B}, \mathbb{C}, \mathbb{D}, \mathbb{E}, \mathbb{F}, \mathbb{G}, \mathbb{H}, \mathbb{I}, \mathbb{J}, \mathbb{K}, \mathbb{L}, \mathbb{M}, \mathbb{N}, \mathbb{O}, \mathbb{P}, \mathbb{Q}, \mathbb{R}, \mathbb{S}, \mathbb{T}, \mathbb{U}, \mathbb{V}, \mathbb{W}, \mathbb{X}, \mathbb{Y}, \mathbb{Z}, \mathbb{1}$
Greek	$\Gamma, \Delta, \Theta, \Lambda, \Xi, \Pi, \Sigma, \Phi, \Psi, \Omega$ $\alpha, \beta, \gamma, \delta, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \mu, \nu, \xi, o, \pi, \rho, \sigma, \tau, \upsilon, \varphi, \phi, \chi, \psi, \omega$

2. Notations

preferred form	instead of
$A^*, \tilde{b}, \gamma', \mathfrak{v}, \mathbf{v}$	$\bar{A}, \hat{b}, \dot{\gamma}, \vec{v}$
lim sup, lim inf	$\overline{\lim}, \underline{\lim}$
inj lim, proj lim	$\varinjlim, \varprojlim$
$\exp(-(x^2+y^2)/a^2)$	$e^{-\frac{x^2+y^2}{a^2}}$
f^{-1}	$\overset{-1}{f}$

preferred form	instead of
$f\colon A \to B$	$A \xrightarrow{f} B$
$\dfrac{\cos(1/x)}{(a+b/x)^{1/2}}$	$\dfrac{\cos\dfrac{1}{x}}{\sqrt{a+\dfrac{b}{x}}}$

New Volumes

Ergebnisse der Mathematik

The typical Ergebnisbericht should present to people working in the field as well as to colleagues who are working in closely related areas, all the up-to-date facts in a small but well defined area of mathematics. The definitions are there, the logical interrelations among different approaches are clarified, principle results and their most striking corollaries are stated, but the proofs may be omitted. A short indication of the nature of the proof is often given and an outline of the proof may occur where the technical details are replaced by reference to the literature. Such a report, with usuable up-to-date bibliography and detailed author and subject indexes can be an extremely valuable research instrument. With the encouragement and help from our editorial board, a substantial list of reports has already been published, some of them classic in their fields.

Springer-Verlag Berlin Heidelberg New York

München Johannesburg
London Madrid New Delhi
Paris Rio de Janeiro Sydney
Tokyo Utrecht Wien

Band

67 Dellacherie, C.:
Capacités et processus stochastiques
1972. IX, 155 pages
Relié DM 44,–
ISBN 3-540-05676-9

68 Raghunathan, M. S.:
Discrete Subgroups of Lie Groups
1972. IX, 227 pages
Cloth DM 56,–
ISBN 3-540-05749-8

69 Rourke, C. P.; Sanderson, B. J.:
Introduction to Piecewise-Linear Topology
1972. 58 figures
VIII, 123 pages. Cloth DM 42,–
ISBN 3-540-05800-1

70 Kobayashi, S.:
Transformation Groups in Differential Geometry
1972. VIII, 182 pages
Cloth DM 52,–
ISBN 3-540-05848-6

71 Tougeron, J. C.:
Idéaux de fonctions différentiables
1972. VII, 219 pages
Relié DM 69,–
ISBN 3-540-05906-7

72 Gihman, I. I.; Skorohod, A. V.:
Stochastic Differential Equations
Translator from the Russian: Wickwire, K. 1972
VIII, 354 pages. Cloth DM 88,–
ISBN 3-540-05946-6

73 Milnor, J.; Husemoller, D.:
Symmetric Bilinear Forms
1973. 6 figures. VIII, 147 pages
Cloth DM 42,–
ISBN 3-540-06009-X

74 Fossum, R. M.
The Divisor Class Group of a Krull Domain
1973. 2 figures. VIII, 148 pages
Cloth DM 48,–
ISBN 3-540-06104-5

75 Springer, T. A.:
Jordan Algebras and Algebraic Groups
1973. VII, 169 pages
Cloth DM 48,–
ISBN 3-540-06104-5

76 Wehrfritz, B. A. F.:
Infinite Linear Groups
An Account of the Group-theoretic Properties of Infinite Groups of Matrices
1973. XIV, 229 pages
Cloth DM 59,–
ISBN 3-540-06132-0

77 Radjavi, H.; Rosenthal, P.:
Invariant Subspaces
1973. 3 figures. XI, 219 pages
Cloth DM 50,–
ISBN 3-540-06217-3

78 Bognár, J.:
Indefinite Inner Product Spaces
1974. IX, 224 pages.
Cloth DM 48,–
ISBN 3-540-06202-5

79 Skorohod, A. V.:
Integration in Hilbert Spaces
Translator from the Russian: Wickwire, K. 1974
XII, 177 pages. Cloth DM 48,–
ISBN 3-540-06322-6

80 Bonsall, F. F.; Duncan, J.:
Complete Normed Algebras
1973. X, 301 pages
Cloth DM 68,–
ISBN 3-540-06386-2

81 Crossley, J. N.; Nerode, A.:
Combinatorial Functors
1974. 1 figure. VIII, 146 pages
Cloth DM 36,–
ISBN 3-540-06428-1

82 Petrov, V. V.:
Sums of Independent Random Variables
1974. Approx. 400 pages
In preparation
ISBN 3-540-06635-76

Distribution rights for Socialist Countries: Akademie-Verlag Berlin

83 Walker, R. C.:
The Stone-Čech Compactification
1974. Approx. 380 pages
Cloth DM 74,–
ISBN 3-540-06699-3

Prices are subject to change without notice

Communications in
Mathematical Physics

Volume 40 Number 2 1975

Contents

C. Gruber, A. Hintermann, D. Merlini — Analyticity and Uniqueness of the Invariant Equilibrium States for General Spin $\frac{1}{2}$ Classical Lattice Systems 83

O. Brander — On the Number of Solutions to a Crossing Symmetric Neutral π-π Model 97

D. B. Pearson — An Example in Potential Scattering Illustrating the Breakdown of Asymptotic Completeness 125

G. Lindblad — Completely Positive Maps and Entropy Inequalities 147

F. A. Berezin — General Concept of Quantization 153

C. Marchioro, A. Pellegrinotti, E. Presutti — Existence of Time Evolution for ν-dimensional Statistical Mechanics 175

A. Messager, S. Miracle-Sole — Equilibrium States of Two-dimensional Ising Model in the Two-Phase Region 187

Indexed in Current Contents

Responsible for advertisements: L. Siegel, D-1000 Berlin 15, Kurfürstendamm 237
Telephone: (0 30) 8 82 10 31, Telex 01-85 411
Springer-Verlag: Berlin Heidelberg New York
Printers: Brühlsche Universitätsdruckerei, Gießen
Printed in Germany
© by Springer-Verlag Berlin Heidelberg 1975