Instructions to Authors

Communications in Mathematical Physics

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.
Equations should be typewritten whenever possible. Even if you use a sophisticated typewriter, some parts of your manuscript will have to be marked to avoid misunderstandings and mistakes. If there is no difference in size, special attention should be given to the placing of subscripts and superscripts so that they are recognizable as such. Please avoid multilevel formulas, subscripts, or superscripts, whenever possible (see overleaf).
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 consequently 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. It is suggested that authors give complete titles of articles referred to. References to **books** should include name(s) of author(s), full title, edition, place of publication, publisher and year of publication.

Examples

Haag, R., Swieca, J.A.: When does a quantum field theory describe particles? Commun. Math. Phys. **1**, 308–320 (1965)

Glimm, J., Jaffe, A.: Quantum physics. A functional integral point of view. Berlin, Heidelberg, New York: Springer 1981

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 by the author 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. Formulas

Letters in formulas 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: $b_{\hat{j}}$, $a^{\hat{i}}_{\vee}$.
Spacing of indices and exponents must be specially indicated ($A_m{}^n{}_n{}^m$) otherwise they will be set (A^{nm}_{mn}).
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 formulas
yellow:	upright (abbreviations e.g. Rc, 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*)**
orange:	Special Roman

The following are frequently confused:

$\cup, \mathsf{u}, \bigcup, U$; $\circ, o, O, 0$; $\times, x, X, \kappa$; $\vee, v, \nu$; $\theta, \Theta, \phi, \varphi, \Phi, \emptyset$; 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
$A^*, \tilde{b}, \gamma', \mathbf{v}$	$\bar{A}, \hat{b}, \dot{\gamma}, \vec{v}$
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
$f.\ A \to B$	$A \xrightarrow{f} B$
$\dfrac{\cos(1/x)}{(a+b/x)^{1/2}}$	$\dfrac{\cos\frac{1}{x}}{\sqrt{a+\frac{b}{x}}}$

E. Cartan

Œuvres Complètes

1984. 3 portraits. Environ 4750 pages.
(En quatre volumes, non livrable séparément)
Relié DM 295,–
Paris: Éditions du Centre National de la Recherche Scientifique
ISBN 3-540-13629-0

The Complete Works of Elie Cartan, originally published in 1952, were out of print for several years but have now been reissued as a 4-volume set.

Elie Cartan's work is, by virtue of its depth, its variety and its great originality, increasingly being recognised as a turning point in the evolutionary history of geometry, and its far-reaching consequences are not yet completely explored. Many contemporary geometers still draw their inspiration from reading Cartan's work.

Many of the concepts Elie Cartan introduced have spread their impact to other areas of mathematics. The geometry of bundles, for instance, has established itself as a classical topic, especially since the development of Gauge Theory in theoretical physics has made it the framework for the study of particle interactions. The role played by transformation groups in the understanding of geometric problems has been confirmed. Many aspects of Riemannian geometry have also penetrated areas such as topology and group theory. The current interest in non-linear pde's is drawing attention back to Cartan's development of the subject.

The three parts of the Complete Works correspond to three different subject areas: I. Lie groups, II. algebra, differential systems and the equivalence problem, III. geometry and other topics. They collect together all his research articles, but not monographs or correspondence. However they do also include a report on his work written by Elie Cartan himself in relation with his candidacy to the French Academy of Sciences. This new edition also features the Obituaries for Elie Cartan written by S. S. Chern and C. Chevalley for the American Mathematical Society, and by H. Whitehead for the Royal Society.

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