

# Instructions to Authors

## Communications in Mathematical Physics

The instructions should be read carefully before preparing the manuscript.

### A. General

Papers submitted for publication should preferably be written in **English**.

A **summary** for *Zentralblatt für Mathematik* should be attached. Manuscripts (**in duplicate**) must be in their final form and typed on one side of the paper only in double-line spacing with wide margins. The author should also keep a copy of the manuscript. An **abstract** must be included.

Normally, only printer's errors should be corrected in the proofs. A **charge** is made for **extensive changes** not due to typesetting errors, introduced at the proof stage.

Formulae should be typewritten whenever possible.

**Special markings** should be explained in a "Note to the printer" (see suggestions in section B). Copies produced by matrix printer are not accepted unless clearly legible.

**Illustrations** and diagrams should be submitted on separate sheets and not included in the text. They should either be good-quality glossy prints in the desired final size (inscriptions 2 mm high are recommended) or be drawn about twice the final size in India ink using clean uniform lines. In the latter case, letters and numbers should be about 4 mm high to allow for 50% reduction. The publisher reserves the right to reduce or enlarge illustrations and diagrams. The author should indicate in the margin of the manuscript where illustrations and diagrams are to be inserted.

**Footnotes**, other than those referring to the title of the paper, should be avoided. If absolutely necessary, they should be numbered consecutively and placed at the foot of the page on which they occur (not at the end of the article).

On the first page of the manuscript a **short running title** should be provided (not to exceed 70 typewriter strokes, including spaces).

The **list of references** at the end of the paper should always be in alphabetical order and include the names and initials of all authors (see examples below). Names of journals and book series should be abbreviated in accordance with *Zentralblatt für Mathematik*. Whenever possible, please replace all references to papers accepted for publication, preprints or technical reports by

the exact name of the journal, as well as the volume, first and last page numbers and year, if the article has already been published or accepted for publication.

When styling the references, the following examples should be observed:

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1. or [B–G] Tomboulis, E., Yaffe, L.: Finite temperature  $SU(2)$  lattice gauge theory. *Commun. Math. Phys.* **100**, 313–341 (1985)

#### *Complete book:*

2. or [M] Bratelli, O., Robinson, D.W.: Operator algebras and quantum statistical mechanics, Vol II. Berlin, Heidelberg, New York: Springer 1981

#### *Single contribution in a book:*

3. or [G] Gromov, M.: Large Riemannian manifolds. In: Shiohama, K., Sakai, T., Sunada, T. (eds.) *Curvature and topology of Riemannian manifolds. Proceedings, Katata 1985. Lecture Notes Mathematics, Vol. 1201*, pp. 108–121. Berlin, Heidelberg, New York: Springer 1986

**Citations in the text** should be either **(a)** by numbers in square brackets, e. g., [1], or Bombieri and Giusti [1], referring to an alphabetically ordered and numbered list, or **(b)** by the author's initials in square brackets, e. g., [B–G], or **(c)** by author and year in parentheses, e. g., Bombieri and Giusti (1971). Any one of these styles is acceptable if used *consistently* throughout the paper. In the third system, if there are two authors, both should be named, e. g., Agar and Douglas (1955); if a work with more than two authors is cited, only the first author's name plus "et al." need be given; e. g., Komor et al. (1979); if there is more than one reference by the same author or team of authors in the same year, then a, b, c, etc. should be added after the year both in the text and in the list of references.

One hundred (100) **offprints** of each paper will be supplied free of charge. Additional offprints are available in lots of 100, provided the order form is received with the corrected proof.

## B. Color coding

Manuscripts must be marked according to the following rules unless produced on a golfball/daisy typewriter or on a good-quality printer and the desired fonts (Greek, script, special roman, boldface, etc.) are clearly recognizable. Special letters or symbols should be explained in a "Note to the printer". Unmarked manuscripts may have to be returned to the authors, which may cause a delay in publication.

### 1. Text

Manuscripts produced by computer typesetting with a daisy wheel or laser printer, or by manual typing with special fonts require marking only of special symbols, and distinguishing between 0 and O, 0 and o, and 1 and l. Special letters or symbols should be explained in a "Note to the Printer." In other cases the following instructions should be followed.

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 end of which should be clearly indicated. The words "Proof", "Remark", "Example", "Note" etc. are printed in *italics* with the formulation in ordinary (roman) typeface, and **Definition** in boldface. The text of the definition itself should be in roman except for the concept defined, which should be in *italics*. Words or sentences to be set in italics should be marked by single underlining. If the material underlined in the manuscript is to be typeset with underlining (and not set in italics), this must be explained to the printer.

### 2. Formulae

*Letters in formulae* are printed in *italics* and figures in roman, if not marked otherwise. It will help the printer if in doubtful cases the position of indices and exponents is marked thus:  $h_{\beta} a^{\forall}$ . Spacing of indices and exponents must be specially indicated ( $A_m^n$ ) otherwise they will be set ( $A_{mn}$ ).

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

- Violet: Letters in formulae (l, O, o) to be distinguished from numerals (1, 0)
- Brown: boldface (headings, boldface letters in formulae)
- Yellow: roman (abbreviations e. g. Re, Im, log, sin, ord, id, lim, sup, etc.)
- Red: Greek
- Green: script
- Orange: special roman
- Blue: Gothic
- Encircled: sanserif

The following are frequently confused and should be made unambiguous:

U, U, U, U; o, o, O, 0; x, x, X, x, κ; v, v, v; θ, Θ, φ, φ, Φ, Ø, Ø; ψ, Ψ; ε, ε; a', a<sup>1</sup>; the symbol a and the indefinite article a; also the handwritten letters:

c, C; e, I; 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 these capital letters by double underlining.

## C. Examples

### 1. Special alphabets or typefaces

**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

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α, β, γ, δ, ε, ζ, η, θ, ϑ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, τ, υ, φ, φ, χ, ψ, ω

**Script** 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, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, 1

**Gothic** 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

**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

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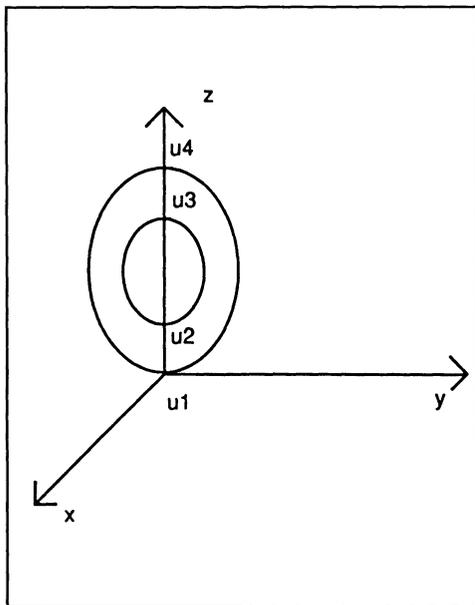
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# Fundamental Texts on Mechanics

J. Mawhin, M. Willem, Institut de Mathématique  
Pure et Appliquée, Louvain-la-Neuve, Belgium

## **Critical Point Theory and Hamiltonian Systems**

1989. XIV, 277 pp. 1 fig. (Applied Mathematical  
Sciences, Volume 74) Hardcover DM 108,-  
ISBN 3-540-96908-X



**Contents:** Preface. - The Direct Method of the  
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Duality. - Minimization of the Dual Action. - Minimax  
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Solutions with Fixed Period. - Morse Theory. - Appli-  
cations of Morse Theory to Second Order Systems. -  
Nondegenerate Critical Manifolds. - Bibliography. -  
Index.

I. Ekeland, Université Paris-Dauphine, France

## **Convexity Methods in Hamiltonian Mechanics**

1989. 4 figs. (Ergebnisse der Mathematik, 3. Folge,  
Band 19) Hardcover, in preparation.  
ISBN 3-540-50613-6

This book describes a global variational approach in  
nonlinear Hamiltonian systems, including second order  
systems.

It has been written with the non-expert in mind. The  
material is arranged progressively, and the nonstan-  
dard tools - index theory and convex analysis - are  
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who are interested in *Hamiltonian systems*, it describes  
the powerful results on the existence and multiplicity of  
periodic solutions in the large which have been obtain-  
ed by the variational approach. For those who would  
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shows the *interplay* between topology, geometry and  
functional analysis which is so prevalent in mathema-  
tics nowadays, and the fundamental role of symme-  
tries.

Besides being an excellent source for graduate  
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introduction for the non-expert.

P. Lochak, Paris; C. Meunier, Palaiseau, France

## **Multiphase Averaging for Classical Systems**

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1988. XI, 360 pp. 60 figs. (Applied Mathematical  
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B. Dacorogna, Lausanne, Switzerland

## **Direct Methods in the Calculus of Variations**

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# WAVES

L. Lam, H. C. Morris, San Jose State University, San Jose, CA, USA (Eds.)

## Wave Phenomena

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Proceedings of the First Woodward Conference, San Jose State University, June 2-3, 1988

1989. 97 figures. XII, 275 pages.  
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These are the proceedings of the first Woodward conference, which brought together experts from a number of different disciplines to discuss problems involving wave phenomena. Research papers and review papers contain results of interest both to workers and graduate students in electromagnetics, fluid mechanics, atmospheric science, and the theory of anisotropic media. Topics discussed include:

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A. V. Gaponov-Grekhov, M. I. Rabinovich,  
Institute of Applied Physics, Gorky;  
J. Engelbrecht, Institute of Cybernetics,  
Tallinn, USSR (Eds.)

## Nonlinear Waves 1

*Dynamics and Evolution*

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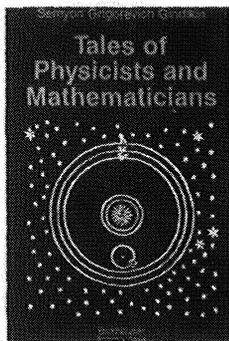
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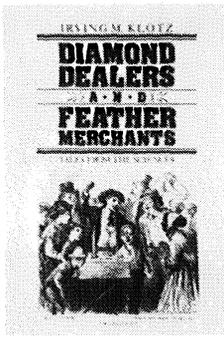


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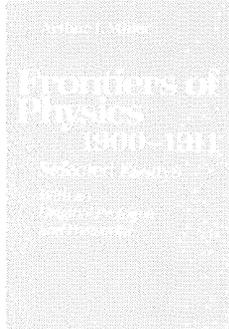
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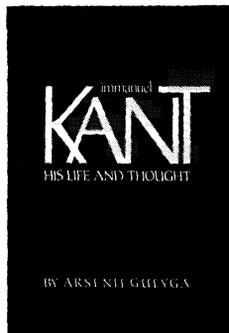
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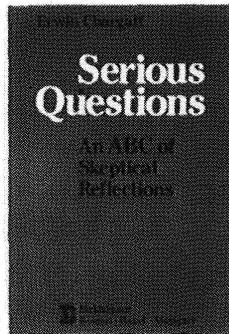


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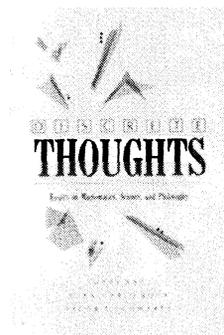


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