

Information for Authors

SCIENCE CHINA Physics, Mechanics & Astronomy (*Sci. China-Phys. Mech. Astron.*) is a monthly peer-reviewed academic journal supervised by the Chinese Academy of Sciences, and cosponsored by the Chinese Academy of Sciences and the National Natural Science Foundation of China. Its primary mission is to encourage communication of basic and innovative research results of high quality and broad interest in the fields of physics, mechanics and astronomy.

The subject areas featured include but not limited to condensed matter physics, optical physics, quantum physics, particle accelerator, high-energy physics, nuclear physics, solid mechanics, fluid mechanics, astrophysics, and interdisciplinary areas, etc.

Contributions are invited from researchers all over the world.

Papers published in *Sci. China-Phys. Mech. Astron.* include:

Reviews: summarize representative results and achievements in a particular topic or an area, comment on the current situation, and advise on the research directions, which should be based on or closely related with the author's own research work.

Articles: report on important original results in all areas of physics, mechanics and astronomy.

Letters: present short reports in a timely manner of the latest important results.

Research Highlights: are succinct summaries and comments on a recent research achievement published in *Sci. China-Phys. Mech. Astron.* and other journals.

How to submit

To submit a manuscript, please visit the website of Science China Press at <http://phys.scichina.com>, click the button "submission", and use ScholarOne Manuscripts. For a new user, please register an "Author Account", and then submit a manuscript following the guidance.

Please introduce the research background, innovation and scientific value of your work, as well as your latest publications in a cover letter when submitting. The detailed contact information of the first author and corresponding author is required (please promptly inform the editorial office of any change of contacting addresses). The authors may recommend 3-8 qualified reviewers and/or request the exclusion of specific reviewers. An informative cover letter is considered helpful for editors and reviewers to make evaluation of your paper.

Duplicate submission is forbidden. In this case, we will inform the author's institution and the relevant journal.

Poor English expression of a submitted manuscript may lead to the final rejection.

File format: single columned, A4 size, 10 pt, single spaced, word, Tex or pdf file.

Electronic supplementary material: We accept electronic multimedia files (animations, movies, audios, etc.) and other supplementary files to be published online along with an article. This feature can add dimension to the author's article, as certain information cannot be printed or is more convenient in electronic form.

Language

Manuscripts that are accepted for publication will be checked by our copyeditors for spelling and formal style. This may not be sufficient if English is not your native language and substantial editing would be required. In that case, you may want to ask a native speaker to help you or arrange for your manuscript to be checked by a professional language editor prior to submission. A clear and concise language will help editors and reviewers concentrate on the scientific content of your paper and thus smooth the peer review process. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication.

Reviewing policy

All submissions will be reviewed by referees selected by the editorial board. The decision of acceptance or rejection of a manuscript is made by the editorial board based on the referees' reports. The entire review process may take 30 to 60 days, and the editorial office will inform the author of the decision as soon as the process is completed. If the editorial board fails to make a decision within 60 days, it is up to the authors to decide whether they would withdraw their paper or submit it elsewhere.

Ethical responsibilities of authors

This journal is committed to upholding the integrity of the scientific record. As a member of the Committee on Publication Ethics (COPE) the journal will follow the COPE guidelines on how to deal with potential acts of misconduct.

Authors should refrain from misrepresenting research results which could damage the trust in the journal and ultimately the entire scientific endeavour. Maintaining integrity of the research and its presentation can be achieved by following the rules of good scientific practice, which includes:

The manuscript has not been submitted to more than one journal for simultaneous consideration.

The manuscript has not been published previously (partly or in full), unless the new work concerns an expansion of previous work (please provide transparency on the re-use of material to avoid the hint of text-recycling ("self-plagiarism")).

A single study is not split up into several parts to increase the quantity of submissions and submitted to various journals or to one journal over time (e.g. "salami-publishing").

No data have been fabricated or manipulated (including images) to support your conclusions.

No data, text, or theories by others are presented as if they were the authors own ("plagiarism"). Proper acknowledgements to other works must be given (this includes material that is closely copied (near verbatim), summarized and/or paraphrased), quotation marks are used for verbatim copying of material, and permissions are secured for material that is copyrighted.

Important note: the journal may use software to screen for plagiarism.

Consent to submit has been received from all co-authors and responsible authorities at the institute/organization where the work has been carried out before the work is submitted.

Authors whose names appear on the submission have contributed sufficiently to the scientific work and therefore share collective responsibility and accountability for the results.

Authorship

Authorship should be limited to those who have contributed substantially to the work, and every author has responsibility for the data and argument mentioned in the paper. The corresponding author must have obtained permission from all authors for the submission of each version of the paper and for any change in authorship. In addition: changes of authorship or in the order of authors are not accepted after acceptance of a manuscript; requests to add or delete authors at revision stage or after publication is a serious matter, and may be considered only after receipt of written approval from all authors and detailed explanation about the role/deletion of the new/deleted author. The decision on accepting the change rests with the Editor-in-Chief of the journal upon request authors should be prepared to send relevant documentation or data in order to verify the validity of the results. This could be in the form of raw data, samples, records, etc.

Copyright

A completed form assigning copyright to Science China Press must be returned to the *Sci. China-Phys. Mech. Astron.* office when the paper is accepted for publication. The copyright covers the exclusive right to reproduce and distribute the article (in various languages), including offprints and reprints, translations, photographic reproductions, microform, electronic form (offline, online) or other reproductions of similar nature. The Copyright Transfer Statement is available at www.scichina.com.

Disclosure of potential conflict of interests

Authors must disclose all relationships or interests that could influence or bias the work. Although an author may not feel there are conflicts, disclosure of relationships and interests affords a more transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interests is a perspective to which the readers are entitled and is not meant to imply that a financial relationship with an organ-

ization that sponsored the research or compensation for consultancy work is inappropriate. Examples of potential conflicts of interests that are directly or indirectly related to the research may include but are not limited to the following:

Research grants from funding agencies (please give the research funder and the grant number);

Honoraria for speaking at symposia;

Financial support for attending symposia;

Financial support for educational programs;

Employment or consultation;

Support from a project sponsor;

Position on advisory board or board of directors or other type of management relationships;

Multiple affiliations;

Financial relationships, for example equity ownership or investment interest;

Intellectual property rights (e.g. patents, copyrights and royalties from such rights);

Holdings of spouse and/or children that may have financial interest in the work.

In addition, interests that go beyond financial interests and compensation (non-financial interests) that may be important to readers should be disclosed. These may include but are not limited to personal relationships or competing interests directly or indirectly tied to this research, or professional interests or personal beliefs that may influence your research.

The corresponding author will include a summary statement in the text of the manuscript in a separate section before the reference list.

See below examples of disclosures:

Funding: This work was supported by X (Grant No. X).

Conflict of Interest: Author A has received research grants from Company A. Author B has received a speaker honorarium from Company X and owns stock in Company Y. Author C is a member of committee Z.

If no conflict exists, the authors should state:

Conflict of Interest: The authors declare that they have no conflict of interest.

Informed consent

All individuals have individual rights that are not to be infringed. Individual participants in studies have the right to decide what happens to the (identifiable) personal data gathered and to what they have said e.g. during a study or an interview as well as to any photograph that was taken. Hence it is important that all participants gave their informed consent in writing prior to inclusion in the study. Identifying details (names, dates of birth, identity numbers and other information) of the participants that were studied should not be published in written descriptions, photographs, and genetic profiles unless the information is essential for scientific purposes and the participant (or parent or guardian

if the participant is incapable) has given written informed consent for publication. Complete anonymity is difficult to achieve in some cases, and informed consent should be obtained if there is any doubt. For example, masking the eye region in photographs of participants is inadequate protection of anonymity. If identifying characteristics are altered to protect anonymity, such as in genetic profiles, authors should provide assurance that alterations do not distort scientific meaning.

The following statement should be included:

Informed consent: "Informed consent was obtained from all individual participants included in the study."

If identifying information about participants is available in the article, the following statement should be included:

"Additional informed consent was obtained from all individual participants for whom identifying information is included in this article."

About Open Choice

We offer you the opportunity to publish your article as open access via Springer's Open Choice program. Instead of transferring the copyright to Science China Press, your article will be published under the Creative Commons Attribution License in exchange for payment of an article processing charge of US\$3000/€2200. By opting for open access, your article will become freely available to anyone worldwide.

When you choose Open Choice, the Editorial Office will provide you the DOI of the article as well as the OA License Agreement to sign.

The author should fill in the Manual Open Choice Order form (www.springer.com/manualopenchoiceorder) and remit payment/send cheques according to the invoice the author will receive later.

After acceptance

For the paper with a great breakthrough result, quick publication will be arranged, and all paper will be online first in one month after acceptance. After typesetting, page proof is usually sent electronically as email attachments to the corresponding author. The proof plus any minor corrections must be returned to the managing editor within 36 hours. Failure to do this will result in delays in publication. Corrections can be noticed in different ways: 1) highlight the corrections and send us the print proof pages; 2) fax us the corrections; 3) highlight the corrections and send us the corrected page proof as email attachment.

After publication

Authors will be presented one sample copy. If more sample copies and offprints are required, please contact the managing editor and pay the extra fee.

The full text in English is available at www.cnki.net and link.springer.com for the subscribers outside China.

Publication charge

Page charges are 400 RMB for each page in black and white and 2500 RMB for each color page. An invoice for the charge will be sent to the corresponding author by the Editorial Office. Authors will be presented one sample copy. If more sample copies (180 RMB) and paper offprints (20 RMB, at least 10 copies of printed) are needed, please inform the managing editor before printing and indicate clearly the types and numbers.

Contact

Editorial Office of *Sci. China-Phys. Mech. Astron.*

Science China Press

16 Donghuangchenggen North Street

Beijing 100717, China

Tel: 8610-64015835

Fax: 8610-64016350

Email: physics@scichina.org

Manuscript format

Contributions are required of a concise, focused account of the findings and reliable essential data. They should be well organized and written clearly and simply, avoiding exhaustive tables and figures. Authors are advised to use internationally agreed nomenclature, express all measurements in SI units, and quote all the relevant references.

The manuscript should be arranged in the following order: title, author(s), affiliation(s), abstract, text, acknowledgements, references, and appendixes.

Title: Titles must be limited to no more than 20 words, and should be concise, indexable, and informative for a broad scientific audience. Authors should avoid using colons, questions, nonstandard abbreviations, etc. in titles.

Author(s): Authors' names should preferably be written in a standard form for all publications to facilitate indexing and to avoid ambiguities. Authors with Chinese, Japanese, or Korean names may choose to have their names published in their own language alongside the English versions of their names in the author list of their publications. For Chinese, authors may use either Simplified or Traditional characters. The email address of the corresponding author is required.

Author affiliation: The affiliation should be the institution where the work was done. Complete addresses are required with post codes.

Abstract: An abstract (150-250 words) is a summary of the content of the manuscript. It should briefly describe the research purpose, method, result and conclusion. The extremely professional terms, special signals, figures, tables, chemical structural formula, and equations should be avoided here, and citation of references is not allowed.

Keywords: A list of three to eight keywords should follow the abstract. The chosen keywords are required to reflect the theme

of a manuscript.

PACS indexing codes: Each manuscript must be given three to five PACS numbers, developed by the American Institute of Physics (<http://www.aip.org/pacs>).

Text: A paper should begin with a brief introduction of the significance of the author's research. Nomenclature, signal and abbreviation should be defined at their initial appearance. All the figures and tables should be numbered in numerical order.

Introduction: Being the most important part of an article, the introduction introduces the relevant research background and the progress in 2 or 3 years, with references cited in numerical order, then presents the problem to be solved in this article, and finally briefly describes the method adopted in this work. Before the end, the aim of the research should be mentioned. Subtitle is forbidden in this part, and introduction of the article structure is considered unnecessary.

Materials and method: This part introduces the materials, method and experimental procedure of the author's work, so as to allow others to repeat the published work based on this clear description.

Discussion and conclusions: Conclusions should be derived from the observation and experimental results, and comparison with other relevant results is considered helpful to further proving the results. Repeated data should be avoided, and conclusions and suggestions are required to be clearly expressed. New hypotheses and recommendations may be proposed when warranted.

Figures and tables: Figures and tables should be numerically numbered, inserted in the text, and cited in order within the text. For each figure and table, please supply a caption (title) explaining the components of the figure and table. Identify any previously published material by giving the original source in the form of a reference at the end of the figure and table caption. If you include figures that have already been published elsewhere, you must obtain permission from the copyright owner(s) for both the print and online format. Please be aware that some publishers do not grant electronic rights for free. Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body. Please provide the source files of the picture, such as (1) *.cdr; (2) *.ai; (3) *.eps; (4) *.org; (5) *.psd; (6) *.pdf; (7) *.srf; (8) *.xls; (9) *.fh; (10) *.gmf; (11) *.wmf, and so on. The figures should have resolution not lower than 600 dpi and clear lines of 5 px, with signals and letters in Arial Unicode MS at 7 pt. A space should always be maintained between the variable and the unit.

Equations: An equation is numerically numbered (Arabic numeral), and has the number put on its right side.

Acknowledgements: The author expresses his/her thanks to the people helping with this work, and acknowledges the valuable suggestions from the peer reviewers. Financial support also

appears in this part, with grant number(s) following. The full title of each fund is required.

References: Reference citation is regarded as an important indicator of the paper quality. If the relevant references, especially the results published in 2 to 3 years are not cited in the paper, or most citations are from the author's publications, the editor will consider this paper unattractive. References should be numerically numbered and cited in order within the text, with the numbers expressed in square brackets. The author should carefully check the author names, article title, journal title, year, volume and issue number of references, and create the listing according to the format of *Sci. China-Phys. Mech. Astron.*

References

1. For an author's name, full spelling of family name appears after abbreviation of given name, and it should include the full list of authors.
2. For correct abbreviations of journal titles, refer to ISO, e.g., *Sci. Bull. for Science Bulletin*, *Sci. China-Phys. Mech. Astron.* for *SCIENCE CHINA Physics, Mechanics & Astronomy*.
3. The article title should be identified by an initial capital letter and italic with the remainder of the title in lower case, but the Journal references have not the article title.
4. For books and proceedings, the initial letter is capitalized for all the notional words and for function words with more than 4 letters.
5. Do not forget to list the editor names of the proceedings, publisher, city and year of publication, and the page numbers.
6. Accepted but unpublished papers should be followed by "in press".
7. The list of references should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for a reference list. The entries in the list should be numbered consecutively.
8. Reference citations in the text should be identified by numbers in square brackets. Some examples:
 - (i) Negotiation research spans many disciplines [3].
 - (ii) This result was later contradicted by Becker and Seligman [5].
 - (iii) This effect has been widely studied [1-3,7].

Reference examples

● Journal

H. Kaddoussi, Y. Gagou, A. Lahmar, J. Belhadi, B. Allouche, J.-L. Dellis, M. Courty, H. Khemakhem, and M. El Marssi, *Solid State Commun.* **201**, 64 (2015).

● Monograph

R. J. Hunter, *Zeta Potential in Colloid Science* (Academic, New York, 1981), p. 120.

● Proceedings

H. R. Qin, in *The subgroups of a finite order in $K(Q)$: Algebraic K -theory and Its Application*, edited by H. Bass, A. O. Kuku, and C. Pedrini (World Scientific, Singapore, 1999), pp. 600-607.

R. K. Ahrenkiel, in *Gallium Arsenide and Related Compounds 1993: Proceedings of the 20th International Symposium on Gallium Arsenide and Related Compounds*, Freiburg, Germany, 29 August–2 September 1993, edited by H. S. Rupprecht, and G. Weimann (Institute of Physics, London, 1994), pp. 685-690.

● Dissertation

G. X. Liu, *Classification of Finite Dimensional Basic Hopf Algebras and Related Topics*, Dissertation for the Doctoral Degree (Hangzhou University, Hangzhou, 2005), pp. 24-28.

● Technical report

V. Chang, *The Past, Present and Future of the Linux Operating Systems*, Technical Report (University of Southampton, 2006).

● Patent

W. P. Zhang, *Experiment apparatus of diffraction imaging*, China patent, 02290557.X (2003-12-03).

● User manual

D. L. Wang, J. Zhu, and Z. K. Li, *User Manual for QTKMapper Version 1.6*, 1999.

● Software

Hemodynamics III: The ups and downs of hemodynamics, Version 2.2 (Computerized Educational Systems, Orlando (FL), 1993).

Multiple citations are acceptable:

D.-Y. Choi, S. Madden, A. Rode, R. Wang, and B. Luther-Davies, *J. Non-Cryst. Solids* **354**, 3179 (2008); *J. Appl. Phys.* **104**, 113305 (2008).

(same authors, different journals)

or

J. Scaroni, and T. McKee, *Solid State Technol.* **40**, 245 (1997); M. G. Lawrence, *Bull. Am. Meteorol. Soc.* **86**, 225 (2005).

(two completely different references)

or

Y. de Carlan, A. Alamo, M. H. Mathon, G. Geoffroy, and A. Castaing, *J. Nucl. Mater.* **283-287**, 762 (2000); M. H. Mathon, Y. de Carlan, G. Geoffroy, X. Averty, A. Alamo, and C. H. de Novion, *ibid.* **312**, 236 (2003).

(different authors, same journal)

Subscription information

ISSN print edition: 1674-7348

ISSN electronic edition: 1869-1927

Volume 59 (12 issues) will appear in 2016

Subscription rates

For information on subscription rates please contact:

Customer Service

China: sales@scichina.org

North and South America:

journals-ny@springer.com

Outside North and South America:

subscriptions@springer.com

Orders and inquiries:

China

Science China Press

16 Donghuangchenggen North Street, Beijing 100717, China

Tel: +86 10 64019709 or +86 10 64015835

Fax: +86 10 64016350

North and South America

Springer New York, Inc.

Journal Fulfillment, P.O. Box 2485

Secaucus, NJ 07096 USA

Tel: 1-800-SPRINGER or 1-201-348-4033

Fax: 1-201-348-4505

Email: journals-ny@springer.com

Outside North and South America:

Springer Distribution Center

Customer Service Journals

Haberstr. 7, 69126 Heidelberg, Germany

Tel: +49-6221-345-0, Fax: +49-6221-345-4229

Email: subscriptions@springer.com

Cancellations must be received by September 30 to take effect at the end of the same year.

Changes of address: Allow for six weeks for all changes to become effective. All communications should include both old and new addresses (with postal codes) and should be accompanied by a mailing label from a recent issue. According to § 4 Sect. 3 of the German Postal Services Data Protection Regulations, if a subscriber's address changes, the German Federal Post Office can inform the publisher of the new address even if the subscriber has not submitted a formal application for mail to be forwarded. Subscribers not in agreement with this procedure may send a written complaint to Customer Service Journals, Karin Tiks, within 14 days of publication of this issue.

Microform editions are available from: ProQuest. Further information available at <http://www.il.proquest.com/uni>.

Electronic edition

An electronic version is available at link.springer.com.

Production

Science China Press

16 Donghuangchenggen North Street, Beijing 100717, China

Tel: +86 10 64019709 or +86 10 64015835

Fax: +86 10 64016350

Printed in People's Republic of China

Jointly Published by

Science China Press and Springer