

nature physics

GUIDE TO AUTHORS

ABOUT THE JOURNAL

Aims and scope of the journal

Nature Physics publishes papers of the highest quality and significance in all areas of physics, pure and applied. The journal content reflects core physics disciplines, but is also open to a broad range of topics whose central theme falls within the bounds of physics. Theoretical physics, particularly where it is pertinent to experiment, also features. Research areas covered in the journal include:

- Quantum physics
- Atomic and molecular physics
- Statistical physics, thermodynamics and nonlinear dynamics
- Condensed-matter physics
- Fluid dynamics
- Optical physics
- Chemical physics
- Information theory and computation
- Electronics, photonics and device physics
- Nanotechnology
- Nuclear physics
- Plasma physics
- High-energy particle physics
- Astrophysics and cosmology
- Biophysics
- Geophysics

Nature Physics is committed to publishing top-tier original research in physics through a fair and rapid review process. The journal features two research paper formats: Letters and Articles.

In addition to publishing original research, *Nature Physics* serves as a central source for top-quality information for the physics community through the publication of Commentaries, Research Highlights, News & Views, Reviews and Correspondence.

Editors and contact information

Like the other Nature titles, *Nature Physics* has no external editorial board. Instead, all editorial decisions are made by a team of full-time professional editors, who are PhD-level physicists.

Information about the scientific background of the editors is available at <http://www.nature.com/nphys/team.html>.

A full list of journal staff appears on the masthead.

Relationship to other Nature journals

Nature Physics is editorially independent, and its editors make their own decisions, independent of the other Nature journals. It is for authors alone to decide where to submit their manuscripts. *Nature* will continue to publish the most significant advances in science, including physics. *Nature Physics* publishes landmark papers within the field of physics alone. Materials science may feature in *Nature Physics* when the work centres on some new development in physics; otherwise materials science is the remit of *Nature Materials*.

If a paper is rejected from *Nature* or *Nature Materials*, the authors can use an automated manuscript transfer service to submit the paper to *Nature Physics* via a link sent to them by the editor handling the manuscript. Authors should note that referees' comments (including any confidential comments to the editor) and identities are transferred to the editor of the second journal along with the manuscript. The journal editors will take the previous reviews into account when making their decision, although in some cases the editors may choose to take advice from additional referees. Alternatively, authors may choose to request a fresh review, in which case they should not use the automated transfer link, and the editors will evaluate the paper without reference to the previous review process.

Editorial and publishing policies

The Nature journals, including *Nature Physics*, share a number of common policies. These are discussed in the section 'Editorial policies of the Nature Publishing Group' of this document.

Impact Factor

The ISI impact factor for *Nature Physics* is due in 2007.

Abbreviation

The correct abbreviation for abstracting and indexing purposes is *Nat. Phys.*

ISSN and EISSN

The international standard serial number (ISSN) for *Nature Physics* is 1745-2473, and the electronic international standard serial number (EISSN) is 1745-2481.

CONTENT TYPES

Primary Research Formats

A **Letter** reports an important novel research study, but is less substantial than an Article. Letters typically occupy four printed journal pages. The text is limited to 1,500 words, excluding the introductory paragraph, Methods, references and figure legends. Letters should have no more than 3–5 display items (figures and/or tables). References are limited to 30.

This format begins with a title of, at most, 15 words, followed by an introductory paragraph (not abstract) of approximately 150 words, summarizing the background, rationale, main results (introduced by “Here we show” or some equivalent phrase) and implications of the study. This paragraph should be referenced, as in *Nature* style, and should be considered part of the main text, so that any subsequent introductory material avoids too much redundancy with the introductory paragraph.

Letters include a competing financial interests statement and received/accepted dates. They may be accompanied by supplementary information. Letters are peer-reviewed.

An **Article** is a substantial novel research study of high quality and general interest to the physics community. The main text (excluding abstract, Methods, references and figure legends) is 2,000–3,000 words. Articles have 4–6 display items (figures and/or tables). References are limited to 50.

The maximum title length is 15 words. The abstract is typically 150 words and is unreferenced; it contains a brief account of the background and rationale of the work, followed by a statement of the main conclusions introduced by the phrase “Here we show” or some equivalent. An introduction (without heading) of up to 500 words of referenced text expands on the background of the work (some overlap with the summary is acceptable), followed by a concise, focused account of the findings, ending with one or two short paragraphs of discussion.

Articles include a competing financial interests statement and received/accepted dates. They may be accompanied by supplementary information. Articles are peer-reviewed.

Other Formats

A **Review** is an authoritative, balanced survey of recent developments in a research field. Although reviews should be recognized as scholarly by specialists in the field, they should be written with a view to informing nonspecialist readers. Thus, reviews should be presented using simple prose, avoiding excessive jargon and technical detail. Reviews are approximately 3,000–4,000 words and typically include 4–6 display items (figures, tables or boxes). References are limited to 100; citations should be selective. Footnotes are not used. The scope of a Review should be broad enough that it is not dominated by the work of a single laboratory, and particularly not by the authors’ own work.

When the discussion is focused on a developing field that might not yet be mature enough for review, a **Progress** article is more appropriate. Progress articles are up to 2,000 words in length, with up to 4 display items (figures, tables or boxes). References are limited to 50.

Reviews and Progress articles are commissioned by the editors, but proposals including a short synopsis are welcome.

Reviews and Progress articles include a competing financial interests statement. Received/accepted dates are not included. Reviews and Progresses are always peer-reviewed to ensure factual accuracy, appropriate citations and scholarly balance.

News and Views articles inform readers about the latest advances in physics, as reported in recently published papers (in *Nature Physics* or elsewhere) or at scientific meetings. Most articles are commissioned, but proposals can be made to the Editor in advance of publication of the paper or well before the meeting is held. News and Views articles are not peer-reviewed, but undergo editing in consultation with the author.

Correspondence provides readers with a forum for comment on papers published in a previous issue of the journal or to discuss issues relevant to physics. A Correspondence is never more than one printed page and typically is 250–500 words; it is limited to one display item and 10 references. Article titles are omitted from the reference list. Titles for correspondence are supplied by the editors.

In cases where a correspondence is critical of a previous research paper, the authors of the criticized paper are given the opportunity to publish a brief reply. Criticism of opinions or other secondary matter does not involve an automatic right of reply.

Refutations are always peer reviewed. Other types of Correspondence may be peer-reviewed at the editors' discretion.

Commentary articles focus on policy, science and society or purely scientific issues related to physics. Single-author articles are preferred as this is an 'opinion' section of the journal. Commentaries are usually commissioned by the editors, but proposals are welcome. They should be of immediate interest to a broad readership and should be written in an accessible, non-technical style. Figures and diagrams are encouraged, but are not a requirement. Commentaries are typically no longer than 1,500 words and include up to 25 references. Article titles are omitted from the reference list.

Commentaries do not include a formal competing financial interests statement, but authors should note in the text any competing financial interests that are not evident from their affiliation. Commentaries may be peer-reviewed at the editors' discretion.

Book Reviews are by prior arrangement only. Suggestions for appropriate books are welcome. Book reviews are not peer-reviewed.

HOW TO SUBMIT

ONLINE SUBMISSION

Manuscripts will only be considered if submitted via our online submission system <<http://mts-nphys.nature.com>>. Using this system, authors can upload manuscript files (text, figures and supplementary information, including video) directly to our office and check on the status of their manuscripts during the review process. In addition, reviewers can access the manuscript over a direct Internet link, which speeds the review process and maintains referee anonymity. Technical information on file formats and tips for using the system effectively can be found at <npg.nature.com/npg/mts/tips.html>. Revisions, including manuscripts submitted after a

presubmission inquiry, should be uploaded via the link provided in the editor's decision letter. Please do not submit revisions as new manuscripts.

SUBMISSION POLICIES

Submission to *Nature Physics* is taken to imply that there is no significant overlap between the submitted manuscript and any other papers from the same authors under consideration or in press elsewhere. (Abstracts or unrefereed web preprints do not compromise novelty.) The authors must include copies of all related manuscripts with any overlap in authorship that are under consideration or in press elsewhere. If a related manuscript is submitted elsewhere while the manuscript is under consideration at *Nature Physics*, a copy of the related manuscript must be sent to the editor.

Submission is also taken to imply that all coauthors have approved the contents of the manuscript and its submission by the corresponding author, and that the corresponding author is authorized to represent all coauthors in pre-publication discussions with the journal. The corresponding author for editorial purposes need not be the senior author or the person to whom correspondence is addressed after publication. The primary affiliation for each author should be the institution where the majority of their work was done. If an author has subsequently moved, the current address may also be stated. Statements of equal contribution from more than one author are permitted.

If the manuscript includes personal communications, please provide a written statement of permission from any person who is quoted. E-mail permission messages are acceptable.

Further information on the review process and how editors make decisions is in the section 'Editorial process' of this document.

Physics is a diverse field. Thus, a high priority for *Nature Physics* is that all papers be accessible to all physicists, not only those who are specialists in the particular field. Manuscripts undergo substantial editing, in consultation with authors, to achieve this goal. After acceptance, a copy editor may make further changes so that the text and figures are readable and clear to those outside the field, and so that papers conform to our style. *Nature Physics* uses Oxford English spelling. Contributors are sent proofs and are welcome to discuss proposed changes with the editors, but *Nature Physics* reserves the right to make the final decision about matters of style and the size of figures.

The editors also reserve the right to reject a paper even after it has been accepted if it becomes apparent that there are serious problems with the scientific content or with violations of our publishing policies.

COSTS

There are no submission fees or page charges for publication in *Nature Physics*. The only charge is for colour figures: \$500 for the first colour figure and \$250 for each additional one.

LICENCE AGREEMENT AND AUTHOR COPYRIGHT


The Nature Publishing Group does not require authors to assign copyright of their primary research. Instead, we ask for a licence to publish authors' work in print and electronic form. Copies of the 'licence to publish' form can be downloaded from the *Nature Physics* website, <www.nature.com/naturephysics>. A version of the form for US government employees is also available.

Authors are encouraged to submit their version of the accepted, peer-reviewed manuscript, before copy editing, to their funding body's archive, for public release six months after publication. In addition, authors are encouraged to archive their version of the manuscript in their institution's repositories (as well as on their personal web sites), also six months after the original publication. Authors should cite the publication reference and doi number on any deposited version, and provide a link from it to the published article on the *Nature Physics* website.

ADVANCE ONLINE PUBLICATION

Nature Physics provides Advance Online Publication (AOP) of Letters and Articles, which benefits authors with an earlier publication date and allows our readers access to accepted papers before they appear in print. Note that papers published online are definitive and may be altered only through the publication of a print corrigendum or erratum, so authors should make every effort to ensure that the page proofs are correct. All AOP articles are given a unique digital object identifier (DOI) number, which can be used to cite the paper before print publication.

COVERS AND OTHER ARTWORK

Authors of accepted papers are encouraged to submit images for consideration as a cover. Cover images normally are linked to a specific paper in that issue, but we may also be able to use other images elsewhere in the journal. Illustrations are selected for their scientific interest and aesthetic appeal. Please send prints  electronic files (rather than slides). Please also include a clear and concise legend explaining the image.

PREPARING THE MANUSCRIPT

Nature Physics is read by scientists from diverse backgrounds. In addition, many are not native English speakers. Authors should therefore give careful thought to how their findings may be communicated clearly. Although a shared basic knowledge of physics may be assumed, please bear in mind that the language and concepts that are standard in one subfield may be unfamiliar to nonspecialists. Thus, technical jargon should be avoided as far as possible and clearly explained where its use is unavoidable. Abbreviations, particularly those that are not standard, should also be kept to a minimum and should be defined at their first occurrence. The background, rationale and main conclusions of the study should be clearly explained. Titles and abstracts in particular should be written in language that will be readily intelligible to any scientist. We strongly recommend that authors ask a colleague with different expertise to review the manuscript before submission, in order to identify concepts and terminology that may present difficulties to nonspecialist readers.

The types of contributions that may be submitted to the journal are described in the section ‘Content types’ of this document, along with their length and figure limits. The journal’s format requirements are described below.

Manuscripts should be prepared for online submission. Online submissions include a cover letter, a manuscript text file, individual figure files and optional Supplementary Information files.

Cover Letter. Authors should provide a cover letter that includes the affiliation and contact information for the corresponding author. Authors should briefly discuss the work’s importance and explain why the work is considered appropriate for the diverse readership of *Nature Physics*. Authors should also provide a statement explaining why their manuscript is more appropriate as a Letter or Article. Finally, authors should indicate whether they have had any prior discussions with a *Nature Physics* editor about the work described in the manuscript.

Manuscript Text. All textual content is provided in a single file, prepared using either TeX/LaTeX or Word; figures are provided in individual files (see below).

TeX/LaTeX: Authors are encouraged to use LaTeX, and may use any of the standard class files such as article.cls, revtex.cls or amsart.cls. Non-standard fonts should be avoided; please use the default Computer Modern fonts. For the inclusion of graphics, we recommend graphicx.sty. Please use numerical references only for citations. There is no need to spend time visually formatting the manuscript: *Nature Physics* style will be imposed automatically when the paper is prepared for publication. The .tex file submitted should latex with no errors or warnings.

Word: *Nature Physics* does not use a manuscript template for Word documents. The manuscript file should be formatted as double-spaced, single-column text without justification. Pages should be numbered using an Arabic numeral in the footer of each page. Standard fonts are recommended and the ‘symbols’ font should be used for representing Greek characters.

The manuscript text file should include the following parts, in order: a title page with author affiliations and contact information (the corresponding author should be identified with an asterisk); the sections required for each content type (see information for Letters and Articles); then Acknowledgements (optional), Competing Interests Statement, References, Figure Legends, and Tables.

Acknowledgements should be brief, and should not include thanks to anonymous referees and editors, or effusive comments. Grant or contribution numbers may be acknowledged.

A *Competing Interests Statement* is required for Letters, Articles, Reviews and Progress articles.

References are numbered sequentially as they appear in the text, tables and figure legends. Only one publication is given for each number. Only papers that have been published or accepted by a named publication or recognized preprint server should be in the numbered list; preprints of accepted papers in the reference list should be submitted with the manuscript. Published conference abstracts and numbered patents may be included in the reference list, but text, grant details and acknowledgments may not. Footnotes are not used.

Nature Physics uses standard *Nature* referencing style. All authors should be included in reference lists unless there are more than five, in which case only the first author should be given, followed by “*et al.*”. Authors should be listed last name first, followed by a comma and initials of given names. Article titles should be in Roman text and book titles in italics; the first word of the title is capitalized, the title written exactly as it appears in the work cited, ending with a full stop. Journal names are italicized and abbreviated (with full stops) according to common usage. Volume numbers appear in bold.

Titles of cited articles are required for Articles, Letters, Reviews and Progress articles.

Example: Song, C., Havlin, S. & Makse, H. A. Self-similarity of complex networks. *Nature* **433**, 392–395 (2005).

For Commentaries or News & Views, titles of cited articles are not included.

Example: Lee, H. N. *et al.* *Nature* **433**, 395–399 (2005).

For book citations, the publisher and city of publication are required.

Example: Kuhn, T. S. *Black-Body Theory and the Quantum Discontinuity, 1894–1912* Ch. 9 (Oxford Univ. Press, Oxford, 1978).

Figure legends for Articles or Letters begin with a brief title for the whole figure and continue with a short description of each panel and the symbols used; they should not contain any details of methods. Text for figure legends should be provided in numerical order after the references.

Tables. Please submit tables at the end of your text document (in Word or TeX/LaTeX, as appropriate). Tables that include statistical analysis of data should describe their standards of error analysis and ranges in a table legend.

Figures. Figures should be numbered separately with Arabic numerals in the order of occurrence in the text of the manuscript. One- or two-column format figures are preferred. When appropriate, figures should include error bars. A description of the statistical treatment of error analysis should be included in the figure or scheme legend.

Figure lettering should be in a clear, sans-serif typeface (for example, Helvetica); if possible, the same typeface in approximately the same font size should be used for all figures in a paper. Use symbol font for Greek letters. All display items should be on a white background, and should avoid excessive boxing, unnecessary colour, spurious decorative effects (such as three-dimensional ‘skyscraper’ histograms) and highly pixelated computer drawings. The vertical axis of histograms should not be truncated to exaggerate small differences. Labelling must be of sufficient size and contrast to be readable, even after appropriate reduction. The thinnest lines in the final figure should be no smaller than one point wide. Reasonable requests to enlarge figures will be considered, but editors will make the final decision on figure size. Authors will see a proof of figures.

Figures divided into parts should be labelled with a lower-case bold **a**, **b**, and so on, in the same typesize as used elsewhere in the figure. Lettering in figures should be in lower-case type, with only the first letter of each label capitalized. Units should have a single space between the

number and the unit, and follow SI nomenclature (for example, ms rather than msec) or the nomenclature common to a particular field. Thousands should be separated by commas (1,000). Unusual units or abbreviations should be spelled out in full or defined in the legend. Scale bars should be used rather than magnification factors, with the length of the bar defined in the legend rather than on the bar itself. In legends, please use visual cues rather than verbal explanations, such as “open red triangles”.

Unnecessary figures should be avoided: data presented in small tables or histograms, for instance, can generally be stated briefly in the text instead. Figures should not contain more than one panel unless the parts are logically connected; each panel of a multipart figure should be sized so that the whole figure can be reduced by the same amount and reproduced on the printed page at the smallest size at which essential details are visible.

When a manuscript is accepted for publication, we will ask for high-resolution figure files, possibly in a different electronic format. This information will be included in the acceptance letter. See below for details of digital image production and submission.

Equations. Equations and mathematical expressions should be provided in the main text of the paper. Equations are identified by parenthetical numbers, such as (1), and are referred to in the manuscript as “Eq. (1)”.

Supplementary information.

Supplementary Information should be submitted with the manuscript and will be sent to referees during peer review. Supplementary information is not copy-edited by *Nature Physics*, so authors should ensure that it is clearly and succinctly presented, and that the style and terminology conform with the rest of the paper. The following guidelines detail the creation, citation and submission of supplementary information. Please note that modification of supplementary information after the paper is published requires a formal correction, so authors are encouraged to check their supplementary information carefully before submitting the final version.

Where there is supplementary information to be included exclusively in the online version of a paper published in *Nature Physics*, please follow these guidelines, or publication may be delayed.

Refer to each piece of supplementary information at least once within the text of the main article (the article that is published in the print issue of the journal), as follows:

Designate each item as Supplementary Table, Figure, Video, Audio, Note, Data, Discussion, Equations or Methods. Number Supplementary Tables and Figures as, for example, “Supplementary Table 1”. This numbering should be separate from that used in tables and figures appearing in the main printed article. Supplementary Note or Methods should not be numbered; titles for these are optional.

Refer to each piece of supplementary material at the appropriate point(s) in the main article. Be sure to include the word “Supplementary” each time one is mentioned. Please do not refer to individual panels of supplementary figures.

Figure files should be submitted as web-ready files through *Nature Physics* online submission system <<http://mts-nphys.nature.com>>.

Submit separate electronic files (each including a brief title and legend) in any of these formats:

.txt Plain ASCII text
.eps Encapsulated postscript
.gif GIF image
.htm HTML document
.doc MS Word document
.tex TeX/LaTeX document
.jpg JPEG image
.swf Flash movie
.xls MS Excel spreadsheet
.pdf Adobe Acrobat file
.mov QuickTime movie
.ppt MS Power Point slide
.wav Audio file

File sizes should be as small as possible, with a maximum size of 3 MB, so that they can be downloaded quickly. All panels of a figure or table (for example, Fig. 1a, b and c) should be combined into one file; please do not send as separate files. Image files should be just large enough to view when the screen resolution is set to 640×480 pixels. Audio and video files should use a frame size no larger than 320×240 pixels. Remember to include a brief title and legend (preferably incorporated into the image file to appear near the image) as part of every electronic figure submitted, and a title as part of every table.

Further queries about submission and preparation of supplementary information should be directed to naturephysics@nature.com.

DIGITAL FIGURE GUIDELINES

When possible, we prefer to use original digital figures to ensure the highest quality reproduction in the journal. For optimal results, prepare figures at actual size for the printed journal. When creating and submitting digital files, please follow the guidelines below. Always send two sets of high-quality printouts of your figures along with your accepted manuscript in the event that we cannot use your digital files.

Figures should be uploaded upon submission via our online submission system <<http://mts-nphys.nature.com>>, in one of our preferred formats. Please use the smallest file size that provides sufficient resolution, preferably less than 1 MB, so that referees do not have to download

extremely large files. When a paper is accepted, the editors will request high-resolution files suitable for publication.

Formats: For photographs, TIFF or JPEG files are preferred; EPS, postscript (ps) or PowerPoint for graphwork. Files should be in PC or Macintosh format, preferably from PhotoShop or Illustrator software. We cannot accept Freehand, Canvas, CorelDRAW or MacDrawPro files.

Resolution and figure quality: Figure files must be supplied at an appropriate resolution for print publication.

- Colour: 300 dpi minimum; please convert all colour files into CMYK mode.
- Greyscale: 600 dpi minimum for black-and-white photographs.
- Line art: 1,200 dpi minimum for graphs and illustrations.

Figures that do not meet these standards will not reproduce well and may delay publication until we receive high-resolution images or high-quality printouts. We cannot be held responsible for assuming the cost of corrected reprints should poor quality images need to be used.

Please do not scan laser printouts of figures and send them to us as digital files. The dot pattern on a laser print often creates a moire pattern when scanned.

How to send files: To support compatibility with your digital files, it is important to send them to us with the final version of your manuscript. Figures may be sent on Zip disk, Jaz disk or CD, or by FTP (see below)

FTP site: Using any type of FTP software, you can place files on our FTP site. Name your files with the corresponding author's name, figure number and letter, and file format (for example, Dr. Smith's figure 3a in TIFF format: smith3a.tiff). Do not use slashes (/,\) or hyphens (-) when naming your file. Please compress your files before uploading.

site address: ftp.nature.com

user name: natphys

password: physics

EDITORIAL PROCESS

PRESUBMISSION INQUIRIES

Researchers may request informal feedback from the editors on the journal's interest in a particular manuscript. A short 'presubmission inquiry' can be sent through the online submission system <<http://mts-nphys.nature.com>>. Researchers should supply a brief paragraph stating the interest to a broad scientific readership, address and contact details, title, a fully referenced summary paragraph and a list of the references cited in the summary paragraph. Time constraints do not permit editors to read entire manuscripts as presubmission inquiries, and so a reply indicating interest in the work is made on the basis of partial information. Papers that were invited after a presubmission inquiry will occasionally be rejected without review, particularly if the degree of novelty, point of the paper, or existence of overlapping references was not clear.

The presubmission process is designed as a time-saver and to aid in the submission decision for authors. Editors do not enter into extended discussions about these responses. Authors who disagree with a presubmission decision should send in the entire manuscript as a regular submission to our online submission system <<http://mts-nphys.nature.com>> so that the editors can make a fully informed judgment about whether to review the paper.

INITIAL SUBMISSION

Papers should be submitted via the online submission system <<http://mts-nphys.nature.com>>. Each new submission is assigned to a primary editor, who reads the paper, consults with the other editors, and decides whether it should be sent for peer review. The author should identify whether the work described in the manuscript has been discussed with a specific *Nature Physics* editor before submission. Many papers describing solid studies of interest to those in the field are nonetheless judged to be unlikely to compete successfully with the best work submitted to the journal.

Like other journals in the Nature family, *Nature Physics* has no external editorial board. However, if a paper's importance within the field is unclear, an editor may request advice from outside experts in deciding whether to review it. The novelty of a submitted paper is considered to be compromised if it has significant conceptual overlap with a published paper or one accepted for publication by *Nature Physics*. Preprint archives do not compromise novelty.

If a paper was previously reviewed at another Nature journal, the authors can use an automated manuscript transfer service to transfer the referees' reports to *Nature Physics* via a link sent by the editor who handled the manuscript. In that case, the journal editors will take the previous reviews into account when making their decision, although in some cases the editors may choose to take advice from additional or alternative referees. Alternatively, authors may choose to request a fresh review, in which case they should not use the automated transfer link, and the editors will evaluate the paper without reference to the previous review process. However, this decision must be made at the time of initial submission and cannot be changed later.

If the authors ask the editors to consider the previous reviews, they should include a note explaining the relationship between the submitted manuscript and the previous submission and (assuming it has been revised in light of the referees' criticisms) giving a point-by-point response to the referees. In cases where the work was felt to be of high quality, papers can sometimes be accepted without further review, but if there were serious criticisms, the editors will consider them in making the decision. In the event of publication, the received date is the date of submission to *Nature Physics*.

PEER REVIEW

The corresponding author is notified by e-mail when the editor decides to send a paper for review. Authors may suggest referees; these suggestions are often helpful, although they are not always followed. By policy, referees are not identified to the authors, except at the request of the referee.

Conceptually similar manuscripts are held to the same editorial standards as far as possible, and so they are often sent to the same referees. However, each of the co-submitted manuscripts must

meet the criteria for publication without reference to the other paper. Thus if one paper is substantially less complete or convincing than the other, it may be rejected, even if the papers reach the same conclusion.

DECISION AFTER REVIEW AND REVISION

When making a decision after review, editors consider not only how good the paper is now, but also how good it might become after revision. In cases where the referees have requested well-defined changes to the manuscript that do not appear to require extensive further experiments, editors may request a revised manuscript that addresses the referees' concerns. The revised version is normally sent back to some or all of the original referees for re-review. The decision letter will specify a deadline (typically a few weeks), and revisions that are returned within this period will retain their original submission date.

In cases where the referees' concerns are more wide-ranging, editors will normally reject the manuscript. If the editors feel the work is of potential interest to the journal, however, they may express interest in seeing a future resubmission. The resubmitted manuscript may be sent back to the original referees or to new referees, at the editors' discretion. In such cases, revised manuscripts will not retain their earlier submission date.

In either case, the revised manuscript should be accompanied by a cover letter that includes a point-by-point response to referees' comments and an explanation of how the manuscript has been changed.

An invited revision should be submitted via the revision link to the online submission system <<http://mts-nphys.nature.com>> provided in the decision letter, not as a new manuscript.

FINAL SUBMISSION AND ACCEPTANCE

A request for final submission is sent when the paper is nearly ready to publish, possibly requiring some text changes but no revisions to the data or conclusions. These letters are accompanied by detailed comments on the paper's format from the copy editor. At this stage, authors may receive an extensively edited manuscript from the editor indicating editorial concerns that must be addressed in the revision. A high priority of *Nature Physics* is that all papers be accessible to nonspecialists. Manuscripts are subject to substantial editing to achieve this goal. After acceptance, a copy editor may make further changes so that the text and figures are readable and clear to those outside the field, and so that papers conform to our style. *Nature Physics* uses Oxford English spelling.

For the final revision, authors should use the revision link to the online submission system <<http://mts-nphys.nature.com>> provided in the decision letter to upload a final version of the text with all the requested format changes. Electronic files of the final figures, at high resolution, should be sent separately on disk or via ftp.

When all remaining editorial issues are resolved, the paper is formally accepted. The received date is the date on which the editors received the original (or if previously rejected, the resubmitted) manuscript. The accepted date is when the editor sends the acceptance letter.

Contributors are sent proofs and are welcome to discuss proposed changes with the editors, but *Nature Physics* reserves the right to make the final decision about matters of style and the size of figures.

APPEALS

Even in cases where editors did not invite resubmission, some authors ask the editors to reconsider a rejection decision. These are considered appeals, which, by policy, must take second place to the normal workload. In practice, this means that decisions on appeals often take several weeks.

Decisions are reversed on appeal only if the editors are convinced that the original decision was a serious mistake, not merely a borderline call that could have gone either way. Further consideration may be merited if a referee made substantial errors of fact or showed evidence of bias, but only if a reversal of that referee's opinion would have changed the original decision. Similarly, disputes on factual issues need not be resolved unless they were critical to the outcome. Thus, after careful consideration of the authors' points, most appeals are rejected by the editors.

If an appeal merits further consideration, the editors may send the authors' response or the revised paper to one or more referees, or they may ask one referee to comment on the concerns raised by another referee. On occasion, particularly if the editors feel that additional technical expertise is needed to make a decision, they may obtain advice from an additional referee.

EDITORIAL POLICIES OF THE NATURE PUBLISHING GROUP

RELATIONSHIP BETWEEN NATURE JOURNALS

Nature Physics is editorially independent, and its editors make their own decisions, independent of the other Nature journals. If a paper is rejected from one Nature journal, the authors can use an automated manuscript transfer service to submit the paper to another Nature journal via a link sent to them by the editor handling the manuscript. Authors should note that referees' comments (including any confidential comments to the editor) and identities are transferred to the editor of the second journal along with the manuscript. In that case, the journal editors will take the previous reviews into account when making their decision, although in some cases the editors may choose to take advice from additional or alternative referees. Alternatively, authors may choose to request a fresh review, in which case they should not use the automated transfer link, and the editors will evaluate the paper without reference to the previous review process.

LICENCE AGREEMENT AND AUTHOR COPYRIGHT

Since February 2002, the policy of Nature Publishing Group has been to allow authors to retain copyright to their own work. We therefore no longer require authors to transfer copyright to their own primary research, although we require that they grant us a licence to publish their work in print and electronic form. We cannot proceed with publication until the licence form has been signed and returned to us along with the corrected proofs.

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