PHYSICAL REVIEW LETTERS
EDITORIAL POLICIES AND PRACTICES
(Revised January 2001)

Mission of the Journal

Physical Review Letters, published by The American Physical Society, is charged with providing rapid publication of short reports of important fundamental research in all fields of physics. The journal should provide its diverse readership with coverage of major advances in all aspects of physics and of developments with significant consequences across subdisciplines. Letters should therefore be of broad interest.

Acceptance Criteria

Physical Review Letters publishes Letters of not more than four journal pages and Comments of not more than one journal page. A Letter must meet specific standards for substance and presentation, as judged by rigorous refereeing and editorial review.

Substance: The paper must satisfy criteria of validity, importance, and broad interest. The work must be sound, free of detectable error, and presented in reasonable detail. The results must be new and not simply a marginal extension of previously published work. Papers of broad interest are those that report a substantial advance in a field of physics or have significant implications across subfield boundaries. In summary, *Physical Review Letters* publishes papers that keep broadly interested physicists well informed on vital current research.

Papers advancing new theoretical views on fundamental principles or theories must contain convincing arguments that the new predictions and interpretations are distinguishable from existing knowledge, at least in principle, and do not contradict established experimental results. Mathematical and computational papers that do not have application to physics are generally not suitable for *Physical Review Letters.*

Papers that describe proposed experiments fall into a special category. For such papers to be acceptable, the experiments must be demonstrated to be novel and feasible. It is the authors' responsibility to show that their proposal is likely to stimulate research that might not otherwise be undertaken.

Presentation: The diversity of the readership of *Physical Review Letters* places special demands on style. Each article must begin with one or more introductory paragraphs that state, in language understandable to the journal's broad readership, the issues it addresses and its primary achievements.

Each paper should present as complete a discussion as possible within the constraints of a short communication. When appropriate, a Letter should be followed by a more extensive report elsewhere. Papers must be clearly written, with symbols defined, figures well drawn, and tables and figures thoroughly captioned.

A Comment must correct or criticize an important, central aspect of a specific Letter. The opening paragraph should clearly indicate both the Letter to which the Comment is directed and the criticism. Any submitted Comment or Reply must be cast in a collegial tone, free of polemics. The editors will not accept a Comment on a Letter by any of the authors of the Letter; the Comment format is not a vehicle for addenda. Neither are Comments intended as a means to establish priorities or to rectify bibliographic oversights. Papers which clarify or expand on a Letter without criticism or correction, or which present a general discussion of the topic, are also unsuitable. A corrective Comment will be deemed unnecessary if an Erratum would suffice. Comments and Replies are subject to the refereeing process, and acceptance of a Comment does not guarantee publication of an author's Reply.

Letters, Comments, and Replies must provide proper citations to pertinent earlier work and credit significant contributions by nonauthors. Submission to *Physical Review Letters* is a representation that the paper is not under consideration for publication elsewhere.

When a manuscript has several authors, one of them, the corresponding author, should be designated to receive and respond to correspondence from the editors. This designation can be changed upon notification of the editors. It is the responsibility of the corresponding author to represent all those involved with the work reported and to ensure that the content of the manuscript and the list of authors meet with their approval, both initially and through any subsequent changes.

Authors may not present data and other results obtained by others as if they were their own. Nor may authors incorporate without attribution text from the works of another author, even when summarizing past results or background material. If a direct quotation is appropriate, the quotation should be clearly indicated as such and the original source should be properly cited. Papers that have been found to be in violation of this rule will be rejected. In such cases, resubmission of the manuscript, even with the plagiarized text removed, is not ordinarily allowed. However, the Editors may allow exceptions to this policy if warranted by special circumstances.

Importance of Introductory Paragraphs

Physical Review Letters is unique in its commitment to keep broadly interested readers well informed on vital current research in all fields of physics. This is achieved with introductory paragraphs that state, for each article, the issues addressed and the primary achievements. It is essential that these paragraphs be clearly written and comprehensible to nonexperts. To assure compliance, the referees are instructed to pay particular attention to the introductory section. In addition, the editors will make an independent evaluation of the adequacy and clarity of the introduction.

Submittal of Manuscripts

Authors are advised to familiarize themselves with journal criteria and standards before preparing a manuscript for submission. In particular, consultation of the journal's Advice to Referees and Manuscript Referral form is likely to be of assistance. In most cases, the manuscript itself, particularly its introduction, should make clear why the paper might meet the journal's special criteria of importance and broad interest; however, in some cases it may be helpful for authors to supplement this with a note directed at the editors and included with the initial submission.

Manuscripts may be submitted by conventional mail or by electronic channels. Submission of manuscripts by facsimile (fax) is not appropriate; in general, manuscript copies or replacement pages from our fax machines are *not* suitable for use in the composition process.

A conventional paper manuscript must be double spaced to allow space for copyediting in the event of publication, of reasonable type size to allow fast yet accurate viewing by keyboarders, and submitted in quadruplicate with good quality figures. Original india-ink drawings or glossy photographs should be provided. Xerographic copies are usually of insufficient quality to print acceptably; computer-generated drawings are sometimes satisfactory, but not automatically. See "Information for Contributors" at the beginning of the volume for more details. Useful forms and memos regarding manuscript preparation and submission appear at the end of some issues of the journal.

For information about submission via e-print servers or direct Web upload, consult the Web URL http://publish.aps.org/ESUB/. Electronic-mail submissions should be sent to the Internet address prltex@aps.org. The computer file should be prepared in one of the acceptable formats: REVTeX (preferred), LaTeX, Harvmac, Plain TeX; PostScript figures. If the paper is accepted for publication, the file may be converted to SGML and used to produce the text of the journal. See the document compu_inform_prl, available via ftp to aps.org in the /pub/jrnls directory (include filename suffix .asc, .tex, or .ps), for further details on the electronic-submission compuscript program. Inquiries may be made to the above address.

Manuscripts and figures are not routinely returned to authors with correspondence. Authors may request return of the manuscript and/or figures. For any resubmission, please state whether or not the figures have been modified, and supply new photoreproducible journal-quality figures if there have been such changes.

The Author Status Inquiry System (ASIS) provides information to authors regarding the status of their manuscripts via the World Wide Web at the URL http://publish.aps.org/STATUS/status.html. Alternatively, authors may send an electronic mail message to status@aps.org using as the subject line the manuscript code number followed by the last name of the first author (for example, LM1234 Jones). The body of the message should be empty (no human will read it).

Telephone inquiries regarding status are discouraged, since the interruption of normal office procedures can cause delays. In those cases when clarification of the information from ASIS is needed, send an electronic-mail message to prl@aps.org (with subject line, for example, Status LM1234 Jones).

Complementary material associated with an article (e.g., data tables, color image files, multimedia files) may be submitted electronically for joint review. If the article is published, this material will be deposited in the electronic Physics Auxiliary Publication Service (EPAPS) of the American Institute of Physics. Information about EPAPS can be obtained from the Editorial Office on request, via ftp to aps.org in the /pub/jrnls directory as the file epaps_up.asc or via the World Wide Web URL http://publish.aps.org/.

Editorial Procedures

The following descriptions of ordinary editorial practices are not meant as an exposition of rigid rules—there are few rigid rules—but as an outline of usual practices, presented with the view that some understanding of these procedures may help authors and referees deal with the editors.

Upon receipt of a manuscript, the staff makes an estimate of the length required for publication. If the length is not excessive, the paper is given to the appropriate editor who chooses referees for the paper. (The editors divide responsibility among themselves for the different areas of physics.) If the paper is estimated to exceed 4 printed pages by more than 12% (an indication that necessary revisions might seriously alter the content), the paper is not sent for review, and a length estimate is sent to the authors. The authors may make suitable changes and resubmit the manuscript. Manuscripts which are too long by less than 12% are sent for review, but the authors are advised that a shorter version will be required if the paper is accepted for publication.

Letters.—With few exceptions, the editors cannot be sufficiently competent in the special areas addressed by

the submitted papers to decide on the disposition of the papers themselves. They send papers to referees, selected as representatives of the informed readership which the paper addresses, for their counsel. Initially, most papers are sent to two referees (sometimes one or three). If in the judgment of the editors a paper is clearly unsuitable for *Physical Review Letters,* it will be rejected without review; authors of such papers have the same right to appeal as do other authors. Consideration of an appeal in such a case will focus on whether anonymous review is warranted.

Physical Review Letters has an Editorial Board (Divisional Associate Editors), whose members are appointed for three-year terms by the Editor-in-Chief upon recommendation of the editors after consultation with APS divisions where appropriate. Board members provide advice to the editors on editorial policy and on specific papers as requested, and participate in the formal appeals process (see section on Author Appeals).

Some Divisional Associate Editors, by individual arrangements with the appropriate editor, offer to the editor referee suggestions and other advice on newly submitted papers. In general, the editors frequently consult the DAEs and other senior physicists informally as needed, as well as by the formal review process.

Referees are requested to comment critically on the validity and importance of the paper, and they are asked their opinion concerning the degree of interest of the paper for the readers of *Physical Review Letters.* (Consult the Manuscript Referral form and Advice to Referees included with these pages for details.) The editors also appreciate any suggestions of the referees directed toward improvements in style, grammar, completeness of references, etc. Advice received from referees concerning the scientific merits of a paper are considered very seriously; ordinarily, no paper which receives important scientific criticism from a referee will be accepted without further review. Although advice from referees concerning the suitability of the paper for the journal in terms of importance, broad interest, and accessibility is solicited and is vital, the editors do not consider such counsel definitive and will weigh their own perceptions of the paper and of the journal, and their understanding of the opinions of the readers of the journal, in reaching their conclusions on these aspects of acceptability.

Authors are encouraged to submit a list of scientists who they believe are especially suited to referee their papers. Particularly if the paper addresses an especially arcane or controversial subject or view, advice on the problems of referee selection and a list (not too short) of qualified reviewers is welcome. Of course, the editor is not obliged to select a name from that list. Accompanying the submittal by a description of the work and its potential interest and importance may also be useful.

Occasionally, conflicts of interest between referees and authors may be considered to color the advice of the referees. Although the editors attempt to avoid such conflicts in their choice of referees, they cannot always be aware of such problems. An author who believes that conflicts are possible may submit a list (not too long) of named physicists with the request that they be excluded as referees, and the editors will usually honor such a request. On occasion, the editors may feel it important that they obtain the views of an expert who does have a known conflict of interest. In such cases, they will take special steps to adjust for the possible bias.

Authors may request that their identities not be revealed to the referees ("double-blind" reviewing). If such a request is made, it is the authors' responsibility to furnish a copy of the manuscript without the authors' names, addresses, and the acknowledgment section.

The referee is requested to send a critique within a week of receipt; use of electronic mail or fax is encouraged. If a timely response is not received, a reminder message is sent; we ask the referee to let us know by telephone or electronic means if further delay is expected. If no response is received within a suitable additional interval, the file is inspected by the editor. Often it is appropriate to make a decision on the basis of information already at hand. However, the editor may find that additional advice is needed, or may decide (usually on the basis of contact with the referee) that further delay is acceptable. Of course, the editors stop using referees who are too often delinquent.

Upon receipt of the referees' reports, the editor evaluates them and makes a decision concerning procedure. For a small proportion of papers, the reports are convincing and favorable without caveats and the papers are put into production immediately. Some papers are conditionally accepted upon consideration by the authors of changes suggested by the referees and endorsed by the editors. Most papers are not accepted at this stage; the authors are asked to respond to the criticisms of the referees. While the editors do not assume that the referees' views take precedence over well considered arguments of the authors, and do not require authors to make every change suggested by the referees, they do consider that objections of referees constitute criticism by recognized scholars who belong to the special set of experts addressed by the paper, and they do demand that the author consider those criticisms seriously.

Referee reports are advisory to the editors, but are generally transmitted by the editors to the authors, and so should be written in a collegial manner. The editors may withhold or edit these reports for cause.

Any resubmittal should be accompanied by a summary of the changes made, and a brief response to all recommendations and criticisms. This material will normally be forwarded to reviewers, and so should be written in a collegial manner. Remarks that authors wish to address solely to the editors should be clearly identified and separated from the summary and response.

When the manuscript is resubmitted after the first round of referee reports, the editor may take any of a variety of actions. Of course, the editor may find the authors' response and revisions persuasive and therefore approve publication.

Usually, the editor concludes that further review is necessary, perhaps by the prior referees, perhaps by different referees. In an effort to minimize the time between initial

submittal of a manuscript and final disposition, the anonymous review process will usually end with the reports received following the authors' first resubmittal of the manuscript. Thus the editor will inform the authors either that the manuscript will be published (possibly with minor revision) or that it is inappropriate for publication in this journal. If the editor's negative decision is not accepted and the authors again resubmit the manuscript, the appeal process will begin.

Although no precise definition of acceptability can be constructed, in general the editor will accept only those papers for which there appears to be evidence that a strong majority of interested and competent readers conversant with the field of the paper would consider that the paper is free of detectable error, important, interesting, and, according to their lights, suitable for publication in *Physical Review Letters.* Note that rejection does not necessarily imply that the editors or their advisors have established that the paper is wrong, unimportant, or uninteresting. Instead, rejection implies that the authors have not established to the satisfaction of this jury that the paper is credible, important, and interesting according to the particular standards of *Physical Review Letters.*

Recently, fewer than 40% of submitted papers have been finally accepted for publication in *Physical Review Letters.* This is not an acceptance rate fixed by policy. It reflects a consensus view of the community of reviewers (not editors) of how much to publish.

In some circumstances information about a manuscript considered by *Physical Review Letters* and subsequently submitted to another journal may be provided to the editor of that journal. Such information might include the comments and identities of referees.

After acceptance of a manuscript, if further information that seems to warrant investigation is received by the Editors, they will regard it as an obligation to reconsider their decision.

Comments.—Comment authors are encouraged, but not required, to send their Comment first to the authors of the object Letter for a direct response. The editors usually begin review of a Comment by seeking a reaction from those authors. Possible reactions include:

(a) The Comment seems appropriate for publication without a Reply.
(b) A Reply to the Comment is submitted for possible simultaneous publication. (Submission of the Reply later in the Comment review process may be reserved as a future option.)
(c) The Comment does not seem sufficiently relevant to the Letter or does not appear to be scientifically valid; a detailed discussion is enclosed.

The author of the Letter is not asked to review the Comment as an anonymous referee. In most cases, the editors will consult at least one independent, anonymous referee regarding the suitability for publication of a Comment (and Reply, if any). As with Letters, the editors may be selective in deciding what material is forwarded for consideration.

To be publishable, Comments and Replies must be of interest to our readers and free of detectable errors. If a Comment meets our criteria it will be published whether a Reply is published or not. The editors will not excessively delay the publication of a suitable Comment due to the lack of an adequate Reply. If both are published, the Comment and Reply must appear together, in the same issue. On occasion, a Letter will generate several similar Comments. In these cases, the editors may decide to publish only a subset of the Comments received. Just as Letters are restricted in length, Comments and Replies are restricted to one journal page each.

The Reply is shown to the authors of a Comment prior to publication or as necessary. Substantial revision of a Comment in response to the Reply may be interpreted by the editors as a sign that the Comment was misconceived, and might be cause for rejection. The editors may choose to restrict further modifications of a Comment or Reply at any stage of the review process, taking the version at hand as final.

Errata.—Errata are notices of errors or omissions in papers previously published in *Physical Review Letters.* Errata should be as brief as possible. An Erratum should contain a short statement of the correction(s) and, where appropriate, a description of any effects on the conclusions of the paper.

Appeals

Authors may appeal a rejection of their paper by the editors. In the case of a formal appeal, the paper and all relevant information, including the identities of the referees, will be sent to a Divisional Associate Editor (DAE). The DAE may review the case on the existing record or may seek additional expert opinion. The DAE will present a signed advisory opinion to the editors.

If a DAE has provided a referee report on a paper prior to appeal, another DAE, or the Chairman of the DAEs, must review the paper on appeal. Authors may suggest those DAEs they feel are appropriate (or not appropriate) to conduct the review, but the editors are not bound by such suggestions. If there is no suitable DAE available, the editors may appoint an appropriate scientist to consider a paper under appeal as an *ad hoc* DAE.

The author of a paper that has been rejected subsequent to a DAE review may request that the case be reviewed by the Editor-in-Chief of The American Physical Society. This request should be addressed to the Chairman of the DAEs, who will forward the entire file to the Editor-in-Chief. Such an appeal must be based on the fairness of the procedures followed, and must not be a request for another scientific review. The question to be answered in this review is: Did the paper receive a fair hearing? The decision of the Editor-in-Chief concludes the consideration of the manuscript by the American Physical Society.