

PREPARATION OF MANUSCRIPTS FOR PUBLICATION IN THE PHYSICAL REVIEW

The *Physical Review* attempts to maintain high standards with regard to clarity of style and presentation. This aim is especially important as the journal's readership keeps widening geographically. Authors are encouraged to consult the following list as a guide in preparing manuscripts. The list refers to some of the most frequently encountered problems; more complete information can be found in the *Physical Review Style and Notation Guide* available at <http://forms.aps.org/author/styleguide.pdf>.

1. Notation should be clear, compact, and consistent with standard usage. Each symbol must be individually legible. Equations should be punctuated and aligned to bring out their structure, and numbered on the right. Diacritical marks (tildes, etc.) can be put over any single symbol, including an index, but are not generally desirable over or under groups of symbols.
2. Acronyms and unusual mathematical symbols should be defined at their first occurrence in the abstract and in the text to ensure that such terms are clearly understood. Citations in abstracts should be accompanied by sources, not reference numbers, since abstracts are self-contained.
3. Parentheses, brackets, or braces should be used as necessary to make mathematical expressions less ambiguous. Authors should check, for example, whether parentheses are needed to clarify the extent of numerators, denominators, square roots, or the arguments of trigonometric functions.
4. Symbols for mathematical quantities that are used in equations normally consist of one full-size letter, possibly accompanied by indices or labels as superscripts or subscripts, or within parentheses. Abbreviations of two or more letters should not be used as symbols in mathematical expressions, as they may be mistaken for a product of single-letter symbols. A few well-established exceptions to this rule are the trigonometric functions, standard dimensionless parameters [e.g., Re (Reynolds number), Pr (Prandtl number)], c.c., H.a., and H.c.
5. When symbols with superscripts and subscripts are used, it should be stated clearly in text what the superscripts and subscripts represent, so as to make the paper easier to read. Superscripts are normally set directly over subscripts.
6. Three-vectors are usually set in roman boldface type. More general vectors, matrices, etc., are usually set in lightface italic type, although boldface may alternatively be used. The vector character of terms in a relation should be consistent. *Physical Review* style calls for center dots to signify all inner vector products and \times to indicate all outer vector products.
7. Readability of the journal is an important consideration. Authors are urged to take special care in assuring that their manuscripts are well-organized and clearly written in good scientific English. Accessibility of papers is a matter of significant concern, and at least the abstract and introduction of each article should be written so as to be understandable by a broad spectrum of readers. Jargon and specialized terminology are to be avoided.