

Physics

Respondent:
Stanley G Brown
Editorial Director
American Physical Society

What style manual(s) do physics journals generally use?

We use the *AIP [American Institute of Physics] Style Manual* and the *AIP Editorial Handbook*.

In physics, what criteria must an individual generally meet to be listed as an author? When a journal article in physics has more than one author, what are the norms for deciding the order in which authors are listed?

In the *APS Guidelines for Professional Conduct* (www.aps.org/statements/02_2.cfm), the section “Publication and Authorship Practices” states that

authorship should be limited to those who have made a significant contribution to the concept, design, execution or interpretation of the research study. All those who have made significant contributions should be offered the opportunity to be listed as authors. Other individuals who have contributed to the study should be acknowledged, but not identified as authors.

The order of the authors is determined by the authors themselves. Some groups list names in alphabetical order, some large groups list names in alphabetical order by institution, some rotate the ordering in a sequence of papers, and some reflect to some degree the relative contributions of individual authors. There is no universal rule.

How many peer reviewers per paper tends to be typical in physics? Typically, are authors' identities revealed to the reviewers? Are reviewers' identities revealed to the authors?

In *Physical Review Letters*, two referees are typical; in most of the *Physical Review* journals, it is typical to use one referee, although there is increasing use of two referees, partially as a method of calibrating new referees.

Authors' identities are revealed to reviewers, but reviewers' identities are not revealed to authors. Generally, the identity of an author would be obvious from the paper itself, even without the byline, in most cases where it could conceivably matter, so we see no value in elaborately pretending to conceal the name of the author. However, candid advice is more likely if the reviewer is anonymous.

In physics, do scientific papers usually contain abstracts? If so, how are the abstracts usually structured?

Yes, except for Comments in *Physical Review Letters*, papers have abstracts. There is not a precisely defined structure, but the abstract is expected to summarize the results and conclusions.

What is the usual structure of a scientific paper in physics?

It's typical to have an introduction, several detailed sections, and a conclusions section. Sometimes there are appendixes with details of more limited interest.

What are some of the current issues and trends regarding editing in physics?

Continued internationalization—about 70% of our papers come from outside the United States. Greater prominence of ethical issues—an increasing need to consider possible violations of ethical standards. The impact of the online arXiv created by Paul Ginsparg—to a large degree, the journals no longer provide the first information to specialists but instead provide an indicator of quality and a guide to students and those new to a subfield.

What sources would you recommend to readers interested in further information about editing in physics?

There was an article by Larry Passell in *Physics Today* in the late 1980s about his experiences as a temporary part-time editor of *Physical Review Letters*. (See *Physics Today* 1988;41(3):32-7.)