**Four leading journals for publishing PER results.**

\*\*These are abbreviated with the most important information. Additional information can be found at the website for each journal.

**The Physics Teacher**

http://scitation.aip.org/tpt/

*Purpose*

*The Physics Teacher Online*, published by [The American Association of Physics Teachers](http://www.aapt.org/) and hosted on [AIP's Scitation platform](http://scitation.aip.org/), is a fully featured electronic version of the print journal of the same name. Dedicated upon inception "to the enhancement of physics as a basic science in the secondary schools," TPT's mission was later extended to include the first-year physics course on all levels. Today, about two-thirds of TPT subscribers are teachers in two- and four-year colleges and universities. TPT is published nine times a year, September through May. There are more than 10,000 regular subscribers who teach in schools located throughout the United States and in 60 other countries. Part journal, part magazine, TPT's goal is to provide a forum for contributors to share with colleagues their interesting and useful ideas, discoveries, and experiences in the teaching of physics. TPT publishes articles and notes on physics research, the history and philosophy of physics, applied physics, curriculum developments, pedagogy, instructional lab equipment, and book reviews. In addition the journal features monthly columns on a variety of physics-related topics, including Apparatus for Teaching Physics, For the New Teacher, and Physics Trick of the Month. For more information on the journal itself, please visit the [TPT Home Page](http://scitation.aip.org/tpt/).

*Submission*

We strongly encourage electronic submission of manuscripts in Microsoft Word or WordPerfect. Send by email to [tpt@appstate.edu](mailto:tpt@appstate.edu).

Or, manuscripts may be sent by regular mail to the Editor, *The Physics Teacher*, Department of Physics and Astronomy, Appalachian State University, ASU Box 32142, Boone, NC 28608-2142. Send two copies of the manuscript including originals of all line drawings and other graphics in professionally finished form. Photo-quality ink-jet printouts of artwork and photos are not acceptable. Please include MS Word or WP files of the manuscript submission saved on disk (PC format). The submission should include the names of all the authors, their institution, including complete addresses and email addresses, plus a short (50 words maximum) biographical sketch for each.

Materials intended for specific columns should be submitted directly to the column editor.

*Guidelines for Manuscript Preparation*

Literature search

A complete literature search must be performed. Authors should especially make sure that a similar paper has not already appeared in *The Physics Teacher* by checking the searchable index at *TPT-Online* (<http://www.aapt.org/tpt>). Related papers that were published in this journal or elsewhere should be cited as references.

Length

Manuscripts should normally not exceed 2000 words. Occasionally, a longer manuscript of up to 4000 words (3000 words with pictures and diagrams) may be considered if the author has first submitted a brief description and an outline for preliminary approval. We especially welcome shorter contributions (1000 words or less).

Style and Level

Papers should be appropriate to as broad an audience as possible. Authors should not assume that the reader possesses background information in a specialized field. When technical terms are essential, they should be defined when first used. Mathematics up to the level of differential and integral calculus may be used as needed.

The title of the paper should be short and reflect the paper’s content. Papers in *The Physics Teacher* do not include abstracts. Instead, the first paragraph of each published paper should give a brief summary of the paper’s content. This paragraph is entered into *TPT*’s searchable online index.

Authors are encouraged to use SI units, but use of SI units is not mandatory in cases where other units are more appropriate. Measured and calculated numerical values should be written with the correct number of significant figures and include error limits.

**American Journal of Physics**

http://scitation.aip.org/ajp/

*Purpose*

AJP publishes papers that meet the needs and intellectual interests of college and university physics teachers and students. Articles provide a deeper understanding of physics topics taught at the undergraduate and graduate level, insight into current research in physics and related areas, suggestions for instructional laboratory equipment and demonstrations, insight into and proven suggestions for better teaching methodologies, insight into how college students learn physics, information on historical, philosophical and cultural aspects of physics, annotated lists of resources for different areas of physics, and book reviews.

*Submission*

AJP considers the balance of manuscripts submitted to the journal as well as the individual quality of a manuscript. In particular, manuscripts in theoretical areas that are over-represented in the journal are less likely to be accepted and may not be reviewed at the discretion of the Editor. Areas that are subject to this higher level of selectivity include primarily mathematical papers on electrodynamics, quantum mechanics, classical mechanics and relativity. Also, manuscripts that appear to be more than 6 journal pages will have a lower probability of acceptance unless the length is fully justified.

*Manuscripts* should be submitted [electronically](http://www.kzoo.edu/ajp/submit.html). DO NOT SEND DISKETTES. Electronic submissions will move through the review and editing stages faster. Submission is a representation that the manuscript has not been published previously nor is currently being considered for publication elsewhere. If the manuscript is accepted for publication, a signed statement must be submitted to the American Institute of Physics, transferring copyright to the AAPT; the appropriate form will be supplied at the time of acceptance.

*Guidelines and Evaluation Criteria*

Before submitting a manuscript to AJP, please read this document and also consult the “[Statement of Editorial Policy](http://www.kzoo.edu/ajp/docs/edpolicy.html).”

Authors are expected to perform a thorough literature search before submitting a manuscript. It is particularly easy to search AJP using the [search function at AJP Online](http://scitation.aip.org/vsearch/servlet/VerityServlet?KEY=AJPIAS&CURRENT=NO&ONLINE=YES). Most other journals have similar facilities. *Manuscripts with clearly inadequate references will be returned without review.*

To be publishable in AJP, a manuscript should be evidently written *for* and useful, interesting, and accessible *to* physicists from *outside* the specific subdiscipline that is the subject of the manuscript.

Technical correctness is a necessary, but entirely insufficient criterion for acceptance. Other expectations include clarity of presentation and a significant level of general interest to AJP's diverse audience. Authors should ask a colleague to read and critique their manuscripts before submission. Authors whose native language is not English should have someone with an excellent command of written English read their manuscript and help them with revisions to improve the grammar and usage.

Criteria that will be used in evaluating the appropriateness of submitted manuscripts include the following:

* Would it be of value to undergraduate or graduate *teachers* or *students* of physics? (This criterion does *not* mean that the content needs to be immediately applicable in the classroom — the benefit may be, and often is *indirect*. Nevertheless, the educational motivation of the manuscript should be evident and unstrained.)
* Would it aid significantly in the process of *learning* physics?
* Does it provide enough background information to be *accessible* to readers from other subdisciplines of physics?
* Does it describe new ways of understanding, demonstrating, describing or teaching physics?
* Does it take proper cognizance of previous work on the same subject, regardless of where it may have appeared?
* Is it well organized and written in a clear and interesting manner?
* Especially for more theoretical/mathematical manuscripts: Is the presentation clearly motivated by application to physical phenomena and does it provide significant insight about the phenomena?
* Especially for manuscripts significantly longer than our average of 4000 to 5000 words: Is the length justified by the value of the contents?

Manuscripts that are *not* acceptable *include* but are not limited to the following:

* Those announcing new theories or experimental results.
* Those that seem to have been written for research journals.
* Those that merely solve a textbook type problem.
* Those that provide a detailed calculation with little or no physical insight.
* Those that provide an alternative derivation of a standard result, without providing significant new insight, a significantly new way of thinking, or a much simpler approach.
* Those that have very limited interest.

**Physics Education Research Conference Proceedings**

http://www.per-central.org/conferences/2009/Proceedings.cfm

*Purpose*

The purpose of the conference proceedings is to provide a written record of the scholarly work undertaken by physics education researchers by documenting the research presented at the annual Physics Education Research Conference. To this end, the editors welcome the submission not only of significant or final results, but also of preliminary research results and discussions of works in progress.

*Submission*

Papers are submitted electronically, limited to 4 pages, and must follow a strict format. A document template can be found at the web site list above. Submissions are generally due around mid-July.

*Guidelines and Evaluation Criteria*

**Invited Papers:**

Invited papers submitted to the PERC Proceedings are copyedited by the editors. If significant changes are required, they will be returned to the authors to make the necessary modifications, then published when received back by the editors.

**Contributed Papers:**

Contributed papers submitted to the PERC Proceedings are reviewed based on six criteria: (1) Interest/Value to the PER Community; (2) Content Novelty; (3) Strength of Research; (4) Conclusions; (5) Organization of Ideas; (6) Grammar and Formatting. The most important criterion for publication is interest/value to the PER Community. The Proceedings are meant to be inclusive, welcoming not just significant or final results, but also preliminary research results and discussions of works in progress.

Papers submitted are assigned to three (or in rare cases, two) peer referees. If all referees recommend that a paper be published, it will be accepted. If one or more referees recommend that a paper be declined, the three editors will read all the reports carefully and decide whether the objections are serious enough to warrant not publishing the paper. Once a paper is accepted, the authors will be given the referee reports and a short amount of time to make minor revisions before submitting a final version of the paper. If an author feels that a mistake has been made in the review process, he or she may contact the editors for clarification or appeal, but in all cases the editors have the final decision on the acceptance of papers.

Authors should keep in mind that because of the short time between the PERC conference and the publication of the Proceedings, manuscripts requiring substantial or content-based revisions that would necessitate a re-review cannot be accepted. In rare cases, the editors may decide to accept a paper contingent on whether or not certain modifications recommended by the referees are made to a paper. The acceptance rate of contributed papers in the PERC Proceedings is typically between 70% and 80%.

**Physical Review Special Topics – Physics Education Research**

http://prst-per.aps.org/

*Purpose*

*Physical Review Special Topics - Physics Education Research* (PRST-PER) aims to publish papers that contain original experimental and theoretical results on the teaching and/or learning of physics. The journal is completely electronic with electronic submission, refereeing, publication, and with the archival record being an online journal. Therefore the journal uses submission procedures which differ from the other *Physical Review* journals. Submissions are restricted to a limited number of standardized formats. Since Microsoft (MS) WORD and LaTeX have been dominant as the word-processing tools for authoring manuscripts, standardized templates and macros for these two programs have been developed and should be used by authors (see below). A further goal has been to rely on the World Wide Web where possible; in particular, web-based submission and review forms are available which should make it very convenient for authors and referees to enter data in a structured fashion, allowing further automation of routine database entry.

*Submission*

Manuscripts must be **submitted electronically** (via direct Web upload or via e-print servers). Interactive [submission forms](http://authors.aps.org/ESUB/) are an integral part of the submission process. These forms aid authors in supplying all the information needed in a structured format which furthers efficient processing; they also provide a location for additional free form information. For more, see <http://prst-per.aps.org/info/infostper.html>

*Guidelines and Evaluation Criteria*

**General**

1. What is the purpose of the paper? Who is the audience? Does the paper meet its goals?
2. Should specific sections be changed or added/dropped? Should specific sections be reorganized?
3. Do you recommend that the paper be accepted for publication in its current form?
4. If you suggest revisions, do you need to see the paper again before publication?
5. If you recommend rejecting or revision of the paper, please prepare a detailed, CONSTRUCTIVE analysis for the author.

**Introduction/Background**

1. Is sufficient detail presented to provide a rationale for the study? The literature review should lead the reader directly to the questions addressed by the research.
2. Is too much well known material included? Is information presented that is already available to researchers in earlier papers?
3. Is the justification for the study based on vague generalizations or specific references to previous findings?
4. Is the underlying theoretical framework explained?
5. Are the researcher's background and possible biases fully described?
6. Are the questions addressed by the study clearly presented?

**Methodology**

1. Is there a justification for the research design (qualitative/quantitative, experimental/quasi-experimental, ethnographic, case study, theoretical, etc.)? Are alternative approaches mentioned, along with reasons they do not apply?
2. Is the context, population, etc. adequately described? How were subjects selected? How might this have impacted the study? What was the role of the researcher (passive observer, instructor, unfamiliar interviewer, etc.)?
3. Are the study's procedures, protocols, and instruments described and justified?
4. Are there enough data to answer the research questions? Are there multiple sources/types of data? Is there sufficient detail to facilitate replication of the study?
5. Is the data analysis done properly and adequately explained? A reader with the original data should be able to replicate the analysis.
6. If a quantitative analysis is conducted, were the correct statistical tests applied?
7. If qualitative data were collected, was the analysis process thoroughly described?
8. Have threats to validity and estimates of reliability been reported?

**Results**

1. For a quantitative study, was sufficient statistical information presented?
2. For a qualitative study, are there adequate (but not excessive) quotations or A/V clips, clearly illustrating the researcher's points? How representative are the data that were selected?
3. Do all the different types of data fit together into a consistent set of results? Were there any discrepant findings? If so, how were they explained?
4. Have triangulation and other attempts to establish consistency in the data been adequately reported and addressed?

**Conclusions**

1. Are the research questions answered?
2. Does the article make a convincing analysis of the results? Are the conclusions supported by unambiguous interpretations of the data?
3. Is there a connection to a theoretical framework (either supporting or refuting)?
4. Are comparisons made to previous studies?
5. Are limitations of the study's findings or applicability discussed? Are the conclusions appropriate given the limitations?
6. Is there a need to include implications for instruction?

**References**

1. Is the bibliography an adequate survey of the literature?
2. Are the references accurate? Does each reference really make the point mentioned in the paper?
3. Does the researcher rely too heavily on one type of literature (e.g., quantitative or qualitative) or their own previous work?

*The following should also be considered, but not used as grounds for rejection*

**General**

* Is the paper easy to read? Is the English clear and concise? Are there grammatical or spelling errors? Could the paper be shorter?
* Are the headings helpful?
* Have appropriate keywords been indicated? Are there others that apply? (Keyword choice is critical for efficient searches of the literature. Poor keywords can keep an excellent article from ever being found.)
* Does the paper follow APS guidelines for manuscript submission?

**Title**

* Is it sufficiently descriptive? (Keep in mind that this is all that most people will read when browsing an article database or a journal's table of contents. Does the title contain enough information to indicate the uniqueness of the study?)
* Are there keywords in the title that will facilitate electronic searches? Should the title be changed? If so, in what way?

**Abstract**

* Is it detailed enough to communicate the main point of the study and the findings? (The abstract is not a "teaser" that presents just enough information to arouse curiosity. All important conclusions should be included.)
* Is it clear and succinct?
* Is it missing critical information?
* Should the abstract be changed? If so, in what way?

**Results**

* Are tables and figures used appropriately? Too few or too many can hinder a reader. Should any be added or deleted? Should any be reformatted?

**References**

* Is it current? Are there key references missing? If so, which ones?
* Are the citations in an APS-approved format?