

# Publication Oversight Committee

## Annual Report -- 1998

The Publication Oversight Committee (POC) is advisory to the APS Executive Board and Council. Its agenda includes review of editorial and other publication-related policies, including pricing, infrastructure and personnel issues related to APS journals. Voting members of the committee this year include Phil Allen, Alan Chodos, Allen Goldman, Martin Goldman (Chair), Steve Berry, David Hertzog, Chris Quigg and Virginia Trimble, as well as officers, Judy Franz, Marty Blume (Editor-in-Chief) and Tom McIlrath (Treasurer). The committee, usually joined by publishing staff, editors and librarians, met four times in 1988 to hear and vote on issues ranging from setting prices for subscriptions to setting policy for electronic publications. In the opinion of the chair of POC, APS can be proud of the many publication accomplishments of its officers this year. Although the officers have continually involved the Publication Oversight Committee in all aspects of publication issues and have repeatedly sought its advice and recommendations, the credit for innovation and implementation belongs mostly to them.

The Internet and other electronic media continue to profoundly change the way we do our physics research, exchange information, and display, access, and preserve our physics publications. Newspapers and journals of all kinds are rapidly exploiting the new media in order to foster access to new and old information and to tailor it to the needs of their readerships. Each year brings significant new advances, so it is difficult to envision the future of publication. However, one thing is sure - those journals which are too cautious about implementing information technology will be left behind as we enter the 21st century. APS has taken a leadership position this year in significantly improving accessibility to new scientific advances and to archived physics publications through the introduction of three new electronic products: PROLA, Physical Review Focus and Physical Review Special Topics- Accelerators and Beams (PRSTAB).

### **New all-electronic publications:**

As announced in the September, 1998 APS News, the Physical Review On-line Archive (PROLA), covering all of Physical Review from 1985 to 1996 is now on the Web (at <http://prola.aps.org>), and will be free for the remainder of 1998. In 1999 PROLA will be available to libraries and other institutional subscribers to Physical Review or PR Letters for \$300, as well as to APS members for \$100. This new on-line archive will be much valued by libraries and members for its rapid navigational features, searchability and high quality screen and print images. Long range plans are to have PROLA reach back to 1893 and to include the entire contents of the journal since its inception. In the near term, PROLA will be extended backwards to include the entire series (from first volumes onwards) of PR Letters (1959) and Reviews of Modern Physics (1929), as well as Physical Review back to 1975. In our opinion PROLA will not only vastly improve the speed of access to valuable resources, but will serve to improve research, reduce redundancy and foster a new sense of appreciation for the body of work in physics this century.

Physical Review Focus (PRFocus) is a new on-line service from APS which provides brief

explanations of selected research papers from Physical Review Letters (PRL) at a level accessible to most physicists. This is the first step in a set of initiatives which will be aimed at fostering a greater awareness of physics activities and achievements. The main goal of PRFocus is to improve communication among physicists from different specialties. Papers are chosen based on educational value and intrinsic interest to non-specialists. Each PRFocus story provides a hyperlink to the abstract of the research paper in PRL; subscribers to PRL on-line can access the full text from there. Editor David Ehrenstein has done an excellent job of translating scientific jargon into lively intelligible summaries of important new advances in physics. PRFocus is a welcome first step in bringing down the current barriers to information exchange between physics specialists. POC is currently organizing a committee to review the effectiveness of PR Focus as a vehicle for better communicating the results of emerging research between physics subdisciplines. In the broader context, the committee will make recommendations for improved communication with other scientists as well as with the general public.

APS's first all-electronic peer-reviewed research journal is Physical Review Special Topics-Accelerators and Beams (PRSTAB). This is the first in what could eventually become a series of Special Topics journals. The journal is distributed without charge. For the foreseeable future there will be no submittal or publication charges. Expenses are partially covered by contributions from major particle accelerator laboratories. PRSTAB covers the full range of accelerator science and technology, beam dynamics, applications of accelerators, and design, operation and improvement of accelerators used in science and industry. This electronic journal permits the society to experiment with formats and capabilities in a purely electronic journal, unencumbered by the expenses and exigencies of publishing a companion paper version. Multimedia electronic enhancements have already been introduced into PRSTAB articles. Increased future use of color, sound, movies and computer simulations will be encouraged and tested in the future in such journals. Fully integrated electronic enhancements would be a welcome eventual replacement for the current method of attaching multimedia additions to Physical Review articles by means of the Electronic Physics Auxiliary Publication Service (EPAPS).

### **Physical Review, Physical Review Letters and Reviews of Modern Physics**

Since the end of 1997 all APS journals are available on-line, as well as in paper form. The body of each article is displayed as a high-quality printable image in both PDF (Adobe Acrobat) and Postscript formats. All users have access to the tables of contents for the current and previous issues, the published abstracts, and an advance listing of accepted papers scheduled for upcoming issues. Future on-line enhancements are expected to include full cross-journal linking. In addition to the on-line and paper versions, all journals with the exception of Reviews of Modern Physics (to be added next year) are available on CD-ROM.

Original electronic articles and images are currently being archived. Plans are underway for archives to be maintained at key institutions and updated to new digital media and software of choice as they emerge. The advent of publishing on the Internet has also brought new challenges and opportunities such as Pay-Per-View for non-subscribers. The Internet will have an impact on interlibrary loans and on distribution of publications through intermediaries such as consortia of institutions (e.g., OhioLink). The officers and the Publication Oversight Committee are now in the process of formulating policies in all of these areas. It is often asked whether or not electronic

media are intended by APS to replace paper. While no policy or timetable has been set, paper distribution (but not paper) may indeed eventually diminish or disappear. Meanwhile, Physical Review D has been carrying out a successful "e-first" project enabling the publication of the electronic version of the journal as much as two months in advance of the print version. Physical Review C is soon to follow suit.

While digital issues are receiving much attention, traditional assessment of APS journals by review committees continues to play a key role in maintaining standards. This year there has been a review of Phys. Rev. A (very well-received), a review of Phys. Rev. E is imminent, and a committee is being formed for review of Phys. Rev. B, which will begin early in 1999.

Another traditional area which is undergoing renewed scrutiny is the issue of copyright. In the face of new pressure for greater author control over copyright, APS will defend its obligation to members to continue to be able to provide new compilations and access to past publications. PROLA would not have been practical had APS not possessed the rights to its own publications. The Editor-in-Chief has discussed copyright issues extensively with the committee and policy recommendations are currently being formulated.

There has been an overall continuing increase in submissions and number of published pages in APS journals. The trend in number of subscriptions by libraries and institutions continues to decline (by 3% in US and 8% in Europe), even though revenues are up. For fiscal year 1999, the price of a bundled print/electronic journal subscription package to institutions will go up by 7%. Journal price recommendations by the Publisher/Treasurer for APS members for the fiscal year 2000 were recently approved by the Publications Oversight Committee. At present, the costs associated with publishing journals requiring both paper and electronic versions are relatively high, and will probably remain high as long as an accompanying paper version is produced. Increased prices for electronic products and subscriptions may be the trend in the near future.

### **Special issue of Reviews of Modern Physics for Centennial**

Under the guidance of editor Ben Bederson, a unique special issue of Reviews of Modern Physics has been prepared this year for distribution at the Centennial Meeting in Atlanta in March of 1999. This important retrospective of 20th century physics will contain a collection of new articles written by renowned scientists across the full spectrum of subdisciplines in physics. The introduction is by Hans Bethe and articles are devoted to historical perspectives and developments in particle physics, astrophysics, nuclear physics, atomic, molecular and optical physics, condensed matter, statistical physics and fluids, plasma physics, chemical and biological physics, computational physics, and physics and public policy.

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