

EDITORIAL

Growth and Standards

The journals of The American Physical Society—*Physical Review A* through *E*, *Physical Review Letters*, and *Reviews of Modern Physics*—have for years occupied an enviable position in the world's scientific literature. Having recently celebrated our Centenary (1993), we have seen our journals become ever more internationally represented in its published articles, and at the same time have seen the inexorable growth of our journals, attributable mainly to these international submissions. Growth by itself, assuming that quality is maintained, is not necessarily bad. In fact we are proud that our journals are the journals of choice in so many of the subfields of physics. And we are also proud that our journals give the reader an excellent opportunity to access a crucial portion of the physics literature with both economy of effort and economy of cost. This having been said, we must also face the fact that growth brings with it a variety of problems which need to be addressed if our journals are to maintain their current status and health.

The problems associated with growth are all too evident to our communities of readers, authors, referees, editors, and librarians. Anyone who has lifted recent copies of one of our *Physical Reviews*, for example, experiences daunting physical as well as intellectual challenges. Increasing cost probably leads the lists of concerns, but also sheer volume, increasing burdens on referees and editors, increasing demands on libraries for space, and the sheer increase of information offered to the reader, all conspire to make us reexamine the status quo, and to seek relief however it can be found, while at the same time making every effort not to jeopardize our successes. Electronic publishing, that is, making our journals available in electronic form, with a digitized archive of our past treasure trove available on the networks, is an obvious goal, one which APS is pursuing actively. The purpose of this note, however, is to discuss efforts being made at the present time to address our growth problem, along with the ensuing economic challenges, as they refer to our existing paper journals.

The problems associated with growth have been with us for a long time. In March 1994 an APS presidential task force on journals growth was formed, chaired by E. Merzbacher. A principal recommendation made by the task force, in summary, is: "raise the standards of scientific quality of the publications; [but] do not impose arbitrary limits ... merely to limit the growth of the journals." As a corollary to this recommendation, the task force also recommended the streamlining of the appeals procedures (see below).

For a number of years we have abided by a publication policy, approved by the Council of The American Physical Society, which in effect states that the only criterion to be used in deciding on publication in our journals was scientific merit. This policy remains essentially unchanged, although the official statement has been altered to emphasize more strongly that papers must contain significant new results. A formulation of this revised statement, approved by Council at its April meeting, reads as follows:

It is the policy of The American Physical Society that the *Physical Review* accept for publication those manuscripts that significantly advance physics and have been found to be scientifically sound, important to the field, and in satisfactory form. The Society will implement this policy as fairly and efficiently as possible and without regard to national boundaries.

The editors of our journals enthusiastically endorse this policy, and will make a concerted effort to enforce it. In addition to other means, new instructions to referees are being issued as appropriate to emphasize our somewhat tightened standards.

We have for many years had an appeals procedure which allowed three levels of appeals (four for *Physical Review Letters*). These included appeals at the journal level (two such for PRL), then to the Editor-in-Chief, and finally to the Publications Oversight Committee. Council has approved a streamlined appeals process, in accordance with the task force recommendation. There will now be only two levels of appeal: one at the journal level and one to the Editor-in-Chief. Appeals at the latter level must be based on the fairness of the procedure followed, and must not be a request for another scientific review. A detailed description of the new appeals process, which comes into effect on July 1, 1995, will appear in the statements of Policies and Procedures which appear periodically in all of our journals.

Other steps have been and are continuing to be taken to help secure our journals' fiscal integrity. We will continue to seek new ways to reduce cost, and to thereby ease the financial burdens on libraries.