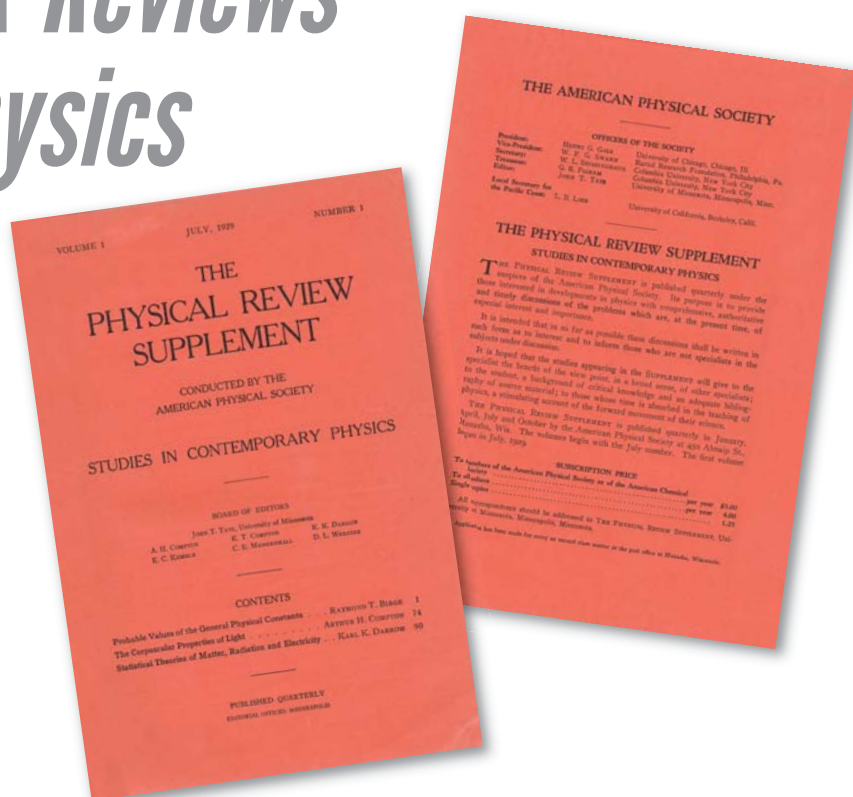


The history of *Reviews of Modern Physics*

Anthony F. Starace

As specialization increased over the course of the 20th century, the journal sought to keep physicists updated on what was happening in the growing number of subdisciplines.



The origins of *Reviews of Modern Physics* (RMP) date to 1928 when the editor of *Physical Review*, John Tate, polled 53 prominent American physicists about the desirability of a supplement devoted to review articles. Out of 48 replies, 46 were in favor, and the first one was printed in 1929 under the title *Physical Review Supplement*.¹ The journal was intended to give a specialist's viewpoint to physicists in other subdisciplines, a background of critical knowledge to physics students, and a stimulating account of progress in physics to those who were teaching the subject. A change to US Postal Service regulations about postage costs for supplements prompted Tate to drop the word "Supplement"; after 1930 the journal was known simply as *Reviews of Modern Physics*.

In addition to review articles, RMP frequently published special issues. Those included festschrifts for occasions such as Albert Einstein's 70th birthday, memorials such as the one for Enrico Fermi in 1955, and conference proceedings. Special publications were printed once or twice per year until 1969. From that time to the present, RMP has focused on scholarly review articles, with a few regular exceptions for Nobel Prize lectures, reports of American Physical Society study groups, and the Particle Data Group compilations.

The editors' perspective

In its 90 years of existence, RMP has been under the stewardship of only nine editors: John Tate (1929–41, 1947), J. William Buchta (1941–46, 1948–51), Samuel Goudsmit (1951–57), Edward Condon (1957–68), Lewis Branscomb

(1969–73), David Pines (1973–95), George Bertsch (1996–2005), Achim Richter (2006–17), and Randall Kamien (2017–).

For much of RMP's existence, the editor of *Physical Review* also served as managing editor of RMP. Associate editors have also played an important role in running the journal. Before 1967 there typically were six associate editors, each selected for a three-year term. Pines increased the number of associate editors to 11. Currently there are 16, each covering a particular subfield. The increase in the number of associate editors reflects the great expansion of physics and the increase of specialization.

The editors' editorial policy statements give us an interesting window into the history of RMP. The first such statement was made by Condon on the occasion of his retirement as editor in 1968. He began by saying, "I was ap-



pointed Editor for the period 1957–1959, and my term in office was never extended . . . so for the past nine years I have been a usurper.” But, he said, “no one else showed up to serve as Editor, so I merely kept on doing what I could.”²

Condon graciously thanked all except those who promised to write reviews but did not. He also suggested that the art of writing a good literature review paper ought to be cultivated starting in graduate school. Generating such reviews, he wrote, “must be regarded as a personal responsibility” of every research physicist.

After Condon stepped down, editorials were no longer signed by the editor-in-chief alone but were drafted by the editor and the associate editors. In the first editorial published under Condon’s successor, Branscomb, the *RMP* editorial team members argued that the importance of reviews increases dramatically as physics becomes more specialized.³ They also pointed to the journal’s editorial policy, printed on the back cover of every issue, which stated that “The best papers in the *Reviews of Modern Physics* should be milestones of physics, embodying the intellectual contributions of hundreds of others whose work appears in the original literature” and that *RMP* authors “assume responsibilities: a responsibility to these hundreds of authors whose work may be referenced . . . and an even greater responsibility to the reader, who is entitled to assume that a paper in *Rev. Mod. Phys.* is as complete, as objective, and as critical as it can reasonably be.”

Branscomb and colleagues noted three problems in meeting those requirements: maintaining “the standards of quality,” deciding “which papers among those of undoubted technical merit are appropriate,” and encouraging “the writing of more reviews of the type described.” They considered those problems in turn. “The maintenance of high standards,” they wrote, “requires that judgments be made not only by the Editors . . . but also by experts on the specific topic of the paper.” Thus, they said, *RMP* “intends to continue to solicit the advice of referees (usually two or more).” The second problem would be handled by giving priority to manuscripts that “are critical, comprehensive, and authoritative.”

But the third and biggest problem was that “in a time when most of our colleagues express the desire to read good reviews, a diminishing fraction seems willing to devote the time and effort to write them.” The editorial team said they would encourage more reviews by continuing “to impose no page charges on authors” and establishing a modest author honorarium.

In 1974, following a self-study by the *RMP* editorial board, Pines and the associate editors announced some new directions for the journal.⁴ There had been a substantial increase in the number of specialized review journals, and *RMP* began listing review articles published in other journals to keep readers informed. The editors also hoped for more reviews that would

help nonspecialists understand what was new and exciting about a particular field. To encourage authors, the editors decided “to relax the traditional requirement that a review be *complete*, provided the author has been a major contributor to the field in question.” That was a notable change in policy and meant that authors could focus on their own contributions rather than attempt to cover the entirety of a field.

Further evolution to the present

The addition in 1992 of *RMP* Colloquia was announced as “an experiment.”⁵ According to Pines, the colloquia were “short articles intended to describe recent research of interest to a broad audience of physicists,” highlight cutting-edge research, and “offer new insights into concepts which link many different subfields of physics.” The editors of *RMP* designated oversight of the colloquia and responsibility for their content and readability to a six-member advisory committee chaired by theoretical physicist Ugo Fano.

When Bertsch became editor of *RMP* in 1996, he appointed me as the *RMP* colloquium editor and eliminated the old advisory committee structure. Bertsch, the associate editors, and I suggested topics, solicited authors, and identified referees for submitted manuscripts, and I worked directly with the authors to ensure the readability of their colloquia. That mode of operation continued with other colloquium editors during the editorships of Richter and Kamien.

Sometime in the mid 1990s, editorials were replaced by a one- to two- page enunciation called “What our editors are looking for” that appeared in the January issues of *RMP*. Those statements have since been replaced by the online “*RMP* Article and Colloquium Guidelines.” Recent changes in the number of associate editors and their research areas can be found in *RMP*’s mastheads⁶ from January 2001 to July 2015.

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