

LETTERS

Two-platoon physics?

Once again¹, the high-energy physicists have presented us with a paper that has more authors (27) than paragraphs (12). Those of us who work in other fields find such a state of affairs difficult to imagine, particularly when we picture the problems we face with only a single collaborator in the writing of a paper. Not having more than a passing familiarity with what goes on in the course of a "run" in one of our great accelerators, I find myself drawing analogies with two-platoon football—just how many men are on the "field" for a particular play?

Seriously, I believe it is time for a participant in one of these group efforts to publish some sort of popular report indicating who did what, in order that we may judge for ourselves whether any piece of research that can be described in 12 paragraphs was the work of 27 investigators. Perhaps, in view of the nature of the problem, *Physics Today* could commission such a report in advance, so that a project could be followed from conception to conclusion, in as much detail as required.

Can high-energy physics really be so different?

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¹F. Bulos, et al. *Phys. Rev. Letters* 13, 486 (1964).

PR Letters assessed

In a recent issue of *Physics Today* (September 1964, p. 92) in a section entitled *Publishing News*, some results of a survey to determine the eventual treatment of material originally published in *Physical Review Letters* were presented. Out of a total of 409 letters published during 1961, 57 percent were not followed up by detailed publications. The note goes on to quote the editor of *Physical*

Review Letters to the effect that the policy of the *Letters* is to publish only such work as occurs in rapidly changing fields of research and which may be expected to influence immediately other researchers in the area. It is not the intent of the journal to become a current awareness or a preliminary result publication. The appearance of this article prompted me to reflect somewhat on the use to which I put *Physical Review Letters* and the needs that I feel that it does or should serve in the physics community. I will try to summarize my reflections in several points.

First, there seems to me to be an unfortunate tendency in science publications to go into very great and often unnecessary detail. In some cases, such detail is necessary as, for example, when new and subtle experimental techniques are presented or when details of a theoretical calculation which may prove useful to other workers are given. However, it is quite common to find large parts of papers filled with repetition of derivations for which a reference would suffice, or detailed descriptions of apparatus which has been described completely elsewhere. Further, the lack of limitation on space in journal articles oftentimes leads to a certain sloppiness of expression and to the use of many words when a few well thought out phrases would suffice. It is far easier to write a long and loosely written paper than a terse one. In a large class of papers, the significant new results may be only a few numbers: a lifetime of an isotope, the moment of a ground state, the existence of a resonance. The techniques used may be relatively standard, the interpretations adequately discussed in review or elsewhere. No purpose is served in these cases by verbosity.

Second, an active researcher may often be more productive if he is encouraged to present his results concisely and briefly and to move on to a new problem. His most useful function may be to serve as a stimulant to other workers. Such an individual may be at his best if he publishes briefly, and should not be accused because of this of merely "skimming the cream off the top."

Third, the presentation of preliminary results can often save other workers substantial time and effort. Final refinements may take months or years, but the early values often can serve as a guide to others and as an aid to theoretical studies.

Fourth, *Physical Review Letters* is probably the most widely read research journal in the entire physics community. Active workers in all fields almost inevitably feel an urge to publish in it. In any particular field, the need for publication is always judged by referees active in that particular field. Hence, the criterion that letters should have an immediate effect on research in their field is almost automatically satisfied by the nature of the refereeing process. Whether a field is or is not rapidly changing is not determined by the editors of *Physical Review Letters*, but rather by the individuals who submit letters. *Physical Review Letters* therefore serves automatically, and in my view very ably, as an awareness journal. The function in this sense is similar, although the presentation more technical, to that of the *Science* and the *Citizen* section of *Scientific American*. This current awareness function is furthered by the *Physical Review Letters'* policy (almost impossible to enforce in practice) that letters should be intelligible, not only to specialists in the field, but the nonspecialists as well.

Fifth, if letters are sometimes in error, this is not necessarily a criticism of the editorial policy so long as they are germane. One asks only that it not be said, as Pauli is said to have once remarked about a singularly poor article, "It is not even wrong." I feel there exists a need for notes which do not report new research but are directed primarily toward stimulating work in new areas. Suggestive but "half-baked" ideas which presently tend to remain the property of a single institution could thus receive a wide audience and therefore be tested earlier.

In keeping with the above thinking, I believe *Physical Review Letters* could perform a useful function by publishing as a matter of policy, letters directed toward stimulating work