

## COMMENTS ON THE CONFERENCE

The Particle Accelerator Conference was planned because of a general feeling that a meeting would be very useful and interesting if it could provide an opportunity for discussion of the problems at the very frontier of accelerator development, without regard to the energy or style of the accelerator and at which engineering details would be welcome.

### Historical Note

Over the last few years the IEEE and its predecessor societies, the AIEE and the IRE, have become increasingly involved in the technical aspects of particle accelerators and the related rapidly developing technology. For about two years the Technical Committee on Plasma and High Energy Physics of the IEEE's Nuclear Science Group has been searching for a way to bring together the various individuals and groups interested in the technical aspects of accelerator design and engineering, construction, and operation. Several symposia have been presented in recent years at national meetings as, for example, the five tutorial papers at the National Convention of the IEEE (March 1964).<sup>\*</sup> These, however well received, did not really find very large response from the professionals in the accelerator field, largely because there exists no tradition for accelerator specialists to congregate at such meetings. A series of discussions of the Nuclear Science Group and the Technical Committee on Plasma and High Energy Physics culminated during the 1964 American Physical Society meeting in Washington. At this time Costrell, Koch, and Leiss of the National Bureau of Standards indicated to Livingston a willingness to co-sponsor a meeting to be styled after the Scintillation Counter Symposium, which has been very well regarded and successful in the instrumentation field over a period of more than a decade.

### Relationship to the International Conferences

The international conferences on high energy accelerators, CERN 1959, BNL 1961, Dubna 1963, Frascati 1965, have come to be dialogues between accelerator designers and accelerator users. In such a sense then an engineering interdisciplinary conference such as this Washington Particle Accelerator Conference should not be in conflict but should, in fact, usefully complement the older conference series. For several reasons, however, it would be desirable not to have them both in the same year. It is hoped that a means of offsetting one or the other can be found. The Nuclear Science Group also hopes to continue this conference in alternate years, offset with respect to the Scintillation and Semiconductor Counter Symposium.

### The Organization of the Conference

The official organization of the Particle Accelerator Conference started with the convening of a Program Committee of about fifteen people from various laboratories and institutions representing a wide range of accelerator types. This group met at the National Bureau of Standards on June 2, 1964 and charted the general course of the conference and its program.

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<sup>\*</sup>*Future Research with High Energy Accelerators* by Melvin Schwartz, Columbia University  
*High Energy Electron Accelerators* by M. S. Livingston, Massachusetts Institute of Technology  
*High Intensity Accelerators Below 1 GeV* by J. R. Richardson, University of California at Los Angeles  
*High Intensity Multi-GeV Proton Accelerators* by L. C. Teng, Argonne National Laboratory  
*Super Energy Accelerators* by Lloyd Smith, Lawrence Radiation Laboratory

Because of the character of accelerators and the breadth of the patterns of their development, it was believed desirable to establish an interdisciplinary approach to the discussions. The practitioners of low energy machine design and of super energy conceptual engineering have not often had an opportunity for interchange of information under circumstances conducive to relaxation. To achieve this end, the program was organized to accept the widest possible spectrum of interests; to appeal to both scientists and engineers; to discuss the design of all sizes of accelerators from the smallest to the largest and of all types; to include accelerators of both heavy and light particles; to review problems both at the accelerator input and output ends; and to encourage the participation of the people who operate accelerators as well as those who build them. During the conference the free interchange of ideas was encouraged by the fact that the two lecture halls and the foyer for morning and afternoon coffee permitted ready access and intermingling for all participants.

#### Some Notes on the Conference

At the opening of the Conference, A. V. Astin, Director of the National Bureau of Standards gave a cordial welcome to the participants on behalf of all sponsoring agencies.

At the dinner, which was attended by 450 persons (some 60% of the attendees), brief talks were heard on behalf of the American Physical Society and the U. S. Atomic Energy Commission given by H. W. Koch and P. W. McDaniel respectively. L. Costrell spoke for the Nuclear Science Group. The dinner speech by W. K. H. Panofsky is reproduced in its entirety. As it turns out this discussion of the relation of accelerator designers and users and the patterns of accelerator laboratory management is a most timely one.

The Conference which produced this rather outsize volume of proceedings is now a matter of history. The manuscripts on the whole, with very minor exceptions, were received very promptly. The response to the Conference both in terms of abstracts, manuscripts, and registrations was phenomenal, as those attending the Conference will testify.

Some statistics on the composition of the Conference are included for interest.

Federally-Identified Institutions	59%
AEC	(46%)
Army and Navy	(9%)
Other Federal	(4%)
Educational Institutions	15%
Industrial Organizations	17%
Foreign Countries	9%
	<u>100%</u>

The National Bureau of Standards, through the diligent efforts of Koch, Leiss, and especially of Costrell and Eisenhower of the Arrangements Committee made the Conference practical, and possible in the physical sense. The thanks of all conference participants are due this experienced and conscientious group.

Although there was some flurry of last minute interest it was decided by the Conference management not to have a press conference. While the Conference was not planned in this fashion, it fell at the end of hearings on high energy physics by the Joint Congressional Committee on Atomic Energy. Thus, the Conference could hardly have had better timing if it had been carefully planned in this regard. Some measure of restraint was required, however, because of the great interest and attention of the news media at the time. The organizers felt that the Conference should avoid tangling in the socio-political field.

#### NBS Tour

An interesting tour of the National Bureau of Standards 135-MeV electron linear accelerator installation was arranged by H. W. Koch and J. E. Leiss for Saturday morning. About fifty members of the Conference spent a pleasant several hours viewing this impressively conceived and designed facility.

Robert S. Livingston  
Conference Chairman