COMMENTS ON THE CONFERENCE

This has been a year of limited budgets, particularly for travel, and the Organizing Committee for the 1969 Particle Accelerator Conference was a little nervous about the result as far as attendance would be concerned. These fears were not justified; the 1969 Conference was just as successful as were those in 1965 and 1967.

Almost 800 accelerator buffs were present. Over a hundred of these came from outside of the United States - about 30 from Canada and 90 from a dozen overseas countries. The largest bloc of attendees came from the National Laboratories, but the University participation also was major. A gratifying contingent came from industry - about 120 people. From Washington agencies and the Armed Services came another 90, convincing evidence of the importance attached by our Government to the advancing accelerator art.

Another striking and gratifying observation was that a large fraction of the attendance was made up of quite young people, full of interest, enthusiasm and curiosity. One left with a feeling of immense vigor and excitement in our field.

Although the sessions ranged over an immense number of topics, three subjects stood out as being of primary interest in 1969. The first, heavy ion accelerators, was introduced by Denis Robinson of High Voltage Engineering in the first paper of the Conference. Speculations about islands of stability away past the end of the periodic table have led to great international interest in the acceleration of very heavy ions; a rash of proposals now exist for various combinations of cyclotrons and electrostatic accelerators, as well as for more sophisticated or perhaps merely more complicated devices. A round-table discussion on the subject of heavy ion accelerators aroused great interest.

The second exciting topic was the new electron ring accelerator. Although the idea was introduced to the United States only a year and a half ago, a great deal of impressive work was reported by the Lawrence Radiation Laboratory, Berkeley and Livermore, and by a group at the University of Maryland. Electron rings have been compressed and have been impregnated with positive ions. The most advanced step, however, has been made at Dubna where the idea originated; there a ring has been extracted from the compressor and given a small acceleration. The experiment was done only a couple of weeks before the Conference and Sarantsev, who reported to the Conference on his work, was not yet sure whether or not the accelerated ring still contained ions. New American ideas were presented for static compression in contrast to the dynamic methods now in use. This, if practical, would solve many of the problems that face the designer of electron ring accelerators.

Superconductivity and superconducting devices was the third of the most interesting topics. Major breakthroughs have taken place during the past year on several fronts. Losses in pulsed superconducting magnets, formerly so high as to make conventional superconducting synchrotrons unthinkable, are in the process of reduction to quite reasonable levels. Superconducting rf cavities for continuously operated linear accelerators have advanced in design and test, largely because of the daring and energetic work at Stanford, where serious preparation is now being made for a superconducting linac to be cooled with superfluid helium.

About 500 people came to the banquet to listen to the speaker of the evening, Representative Craig Hosmer of California. First, however, the Organizing Committee requested a moment to remind the audience of the debt it owed to Bob Livingston and John Martin who have taken the lead in organizing this series of Conferences. The applause of all present indicated their hearty agreement and their approval of the presentation of certificates of appreciation to Livingston and Martin.

Representative Hosmer is the ranking Republican member of the Joint Congressional Committee on Atomic Energy and has played a leading part in provision for Government support of science. His banquet address indicated that he is well acquainted with the problems of the accelerator fraternity. He discussed in some detail the negotiations in the Government as it decides whether or not to support proposals for new major accelerator facilities. It was pleasant to listen to a layman who is not confused about the difference between accelerators and reactors.

The next Particle Accelerator Conference will be held in Chicago, in March of 1971. In 1973 it is expected that the Conference will move to San Francisco. If we live so long we shall return to Washington in 1975.

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Chairman of the Program Committee