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Meetings

AAPT Summer Meeting

THE 1957 Summer Meeting of the American Association of Physics Teachers was held June 20, 21, and 22 in Schenectady, New York. Union College and the General Electric Research Laboratories acted as joint hosts. Eleven invited papers and nine contributed papers were presented during the three-day session. About 150 members were in attendance.

The Thursday meetings were held in the auditorium of the Research Laboratories. After the five contributed papers of the morning session were read, Leo Nedelsky of the University of Chicago presented an invited paper "Measuring our Success" in which he analyzed the purposes of a testing program and the properties of a good test. He stated that, since the "half-life of knowledge" is four or five months, tests should emphasize the measurement of the extent to which the methods of physics become familiar to the student.

After a pleasant lunch in the Laboratory cafeteria, Director of GE Research, C. G. Suits, extended his welcome to the group and also outlined the current activities of the Laboratories. Then three members of the GE research staff, C. P. Bean, A. G. Tweet, and J. C. Fisher, spoke on some aspects of solid-state physics under investigation at the Laboratories. New discoveries in ferromagnetism, semiconductors as a proving ground of solid-state physics, and crystal dislocations were described in an enthusiastic and informative manner. Some very interesting models and films were used by these speakers to clarify the concepts discussed. This session was followed by a conducted tour of the General Electric Research Laboratories and their facilities. In the evening, the members and their families were entertained by a most enjoyable boat cruise on Lake George.

The remaining sessions were held in the lecture room of the physics department at Union College. Friday morning a welcoming address by President C. Davidson, in which he gave the history of Union and outlined its basic objectives, was followed by two contributed papers. Then two reports of special activities sponsored by the Association were made. Harold P. Knauss of the University of Connecticut read the preliminary report of the Conference on Laboratory Instruction in General Physics, held at the University of Connecticut during the three days just before the Summer Meeting. He reported that the conference had agreed that the laboratory in general physics has the dual objective of teaching the student to "know" and to "feel" physics and

that laboratory supervisors and instructors should be constantly aware of improvements necessary for the implementation of these objectives. He noted that the conference had spent considerable time on the discussion of the relative merits of the "conventional" vs. the "free" laboratory without being able to make any firm recommendation with regard to either one. The activities of The Physics Science Study Committee were related by Jerrold R. Zacharias of the Massachusetts Institute of Technology who stated that the committee felt that the high-school physics course should not be devoted to technology but should emphasize the essential intellectual, aesthetic, and historical background of the subject. He said that the course was being planned around four principal topics: the universe, light, mechanics, and the atom. He then described teaching aids in the form of films and apparatus planned by the group.

Three invited papers were read Friday afternoon. Seville Chapman, head of the physics department of the Cornell Aeronautical Laboratory University at Buffalo, N. Y., described "Some Recent Trends in Applied Research in Aeronautics" and C. D. Swartz of Union College used models to illustrate the concept of "Parity". J. M. Greenberg of Rensselaer Polytechnic Institute surveyed "The Role of Scattering in the Development of Physics" and used an experimental model to show that a unique description of the scattering center is not possible by using information obtained from the scattering process.

Following the banquet on Friday evening, a delightful presentation of "The Motivation for Science Careers" was given by Irving Langmuir to the members and their wives assembled in the auditorium of the Research Laboratories. He told of the events and personalities in his own life motivating him toward science and said that his experience had convinced him that the educational system should be centered on creative activity in order that its product would be in a position to profit from the unexpected. He also expressed the opinion that educators should cater to good students.

The final session on Saturday morning began with two contributed papers and concluded with invited papers read by R. J. Seeger of the National Science Foundation and William McKinley of Rensselaer Polytechnic Institute. Dr. Seeger spoke on "Teaching Thermophysics" and maintained that thermophysics or thermodynamics should be taught for its own sake as an example of scientific methodology since it uses only a few axioms to produce a large number of results. He called attention to its various points of view, e.g., operational, mathematical, and philosophical. Professor McKinley outlined "The Search for a Fundamental Length in Physics". Using the principle of "Nonobservability in the Small", he discussed a quantization of space and time which implies a constant of the dimensions of length.

Facilities of the Union College physics department were open to the visitors for inspection all day Friday and also on Saturday morning. The Summer Meeting

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was concluded with a rising vote of thanks to the host institutions and to the program committee and its chairman, President-Elect C. J. Overbeck. A. T. Gobel and W. M. Schwarz of Union College and G. W. Hazard of General Electric were also commended for the excellence of the local arrangements.

Harald C. Jensen
Lake Forest College

Calorimetry

THE 12th Calorimetry Conference will be held at the Wentworth-By-The-Sea, near Portsmouth, New Hampshire, September 3-6. Contributed papers will be presented at the morning sessions of the Conference and, in the evenings, special topics will be presented by invited speakers. On September 7th a visit is planned to Arthur D. Little, Inc., Cambridge, Mass., where cryogenic equipment will be seen. Visits to calorimetric laboratories in the Boston area will also be possible at this time. Further information may be obtained from the chairman of the Conference, Prof. Henry A. Boorse, Pupin Physics Laboratory, Columbia University, New York 27, N. Y.

Matrix Computations

METHODS used to solve systems of linear equations, to compute the inverse of a matrix, and to find characteristic values and vectors will be among the topics discussed at a Conference on Matrix Computations to be held September 3-6 in Detroit by Wayne State University's Department of Mathematics. The purpose of the conference is to bring together those persons who are concerned with such methods and "can communicate both in the technical language of digital computers and in the symbolism of matrix algebra". Although held in conjunction with one of Wayne's special summer computer courses, there will be no tuition fee for the conference. Further information may be obtained from Prof. Wallace Givens, Department of Mathematics, Wayne State University, Detroit 2, Mich.

Neutron Interactions with Nuclei

AN International Conference on Neutron Interactions with the Nucleus will be held September 9-13 at Columbia University in New York City. I. I. Rabi and W. B. Lewis will serve as the president and vice president, respectively, of the conference. The program will include sessions on the following topics: the present status of neutron interactions with nuclei, neutron resonances below 10 Kev, cross sections and other properties of fissionable nuclei, fast neutron total cross sections, fast neutron partial cross sections, and neutron capture gamma rays. For further information regarding the conference agenda write to W. W. Havens, Jr., Physics Department, Columbia University, New York 27, N. Y.; for information concerning fees, accommodations, etc., write to R. W. Siegel at the same address.