

MEETINGS

Quantum Mechanics

The Ehrenberg-Siday-Aharonov-Bohm effect, and its relation to the Einstein-Podolsky-Rosen paradox, will be given special consideration at a conference on the foundations of quantum mechanics to be held October 1-6 at Xavier University in Cincinnati. The meeting is being organized under the sponsorship of the National Aeronautics and Space Administration, the Office of Naval Research, and the Judge Robert S. Marx Foundation, and will be conducted under the chairmanship of Boris Podolsky. Among the participants will be P. A. M. Dirac, E. Wigner, Y. Aharonov, and W. Furry. Several public lectures on the conference topic will be given on October 1 and 2.

Inquiries concerning attendance requirements should be directed to J. B. Hart, Xavier University, Cincinnati 7, Ohio.

Optical Processing of Information

October 23 and 24 are the dates for a symposium on optical processing of information, which will be sponsored by the Information Systems Branch of the Office of Naval Research. The meeting will be held in the Department of Interior Auditorium in Washington, D. C., and will include papers on optical logic and memories, fiber optics, lasers, modulation, and related subjects. Correlation and optical character recognition will not be included, since these topics have been the subjects of previous conferences. Most of the papers will be invited, but some time will be available for the delivery of a few contributed papers.

Further information can be obtained from Miss Barbara A. Novy, Office of Naval Research, Code 437, Washington 25, D. C.

Fluid Dynamics

Norman, Okla., will be the site of the 1962 meeting of the Division of Fluid Dynamics of the American Physical Society. Marking the fifteenth anniversary of the formation of the Division, this meeting will take place November 19-21, the three days preceding Thanksgiving.

The program will include discussions of shock waves and detonations, heat transfer to surfaces immersed in hypersonic flow, flow instabilities and transition to turbulence, and various other aspects of fluid dynamics.

Any member or fellow of the American Physical Society may contribute a ten-minute paper if an abstract, in duplicate and prepared in accordance with instructions published in the *Bulletin* of the Society, is submitted before October 12. Abstracts and re-

quests for additional information should be sent to the secretary of the Division, Raymond J. Emrich, Lehigh University, Bethlehem, Pa.

Radioactive Dating

The International Union of Pure and Applied Chemistry, with the cosponsorship of the International Atomic Energy Agency, is organizing a symposium on radioactive dating which is to be held in Athens, Greece, from November 19 to 23. Emphasis will be placed on methods, the significance of errors, and recent applications of radioactive-dating techniques.

The program calls for discussion of established, new, and potential methods of dating by measurement of natural radioactivity, as well as dating by cosmic-ray-produced radioactivity, with applications in archaeology, geochemistry, geophysics, geology, and the study of meteorites. The use of tritium for determining the age of natural waters is not included in the program since this topic will be included in a symposium on the application of radioisotopes in hydrology to be organized by the IAEA in 1963.

The official channel for US participation is the US Atomic Energy Commission, and inquiries regarding the meeting should be addressed to John H. Kane, Division of Special Projects, AEC, Washington 25, D. C.

Science and Mathematics Teachers

The 62nd annual convention of the Central Association of Science and Mathematics Teachers will be held November 22-24 at the Sheraton-Jefferson Hotel in St. Louis, Mo. The program will include discussions of various experimental programs in elementary and secondary-school mathematics and science, as well as of new approaches in teaching, including the use of teaching machines and television techniques. There will also be an exhibit of teaching aids and texts for science and mathematics.

A complete program and reservation forms can be obtained from Joe Kennedy, Indiana State Teachers College, Terre Haute, Ind.

Combustion

The next meeting of the Western States Section of the Combustion Institute will be held at Aerojet General Corp. in Sacramento, Calif., on November 26 and 27. The program will emphasize experimental techniques

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EXHIBITORS

Academic Press
Addison-Wesley
Alpha Scientific Labs.
American Elsevier
American Tradair
Arenberg Ultrasonic Lab.
Baird-Atomic Inc.
Barnes Engineering
Benjamin, W. A., Inc.
Cambridge Communications
Cambridge Univ. Press
Central Scientific
Conference Book Svc.
Consolidated Vacuum
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Davis, F. A., Co.
Ealing Corp.
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Edwards High Vacuum
Electro-Optical Inst.
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Harshaw Chemical
Harvey-Wells Corp.
High Voltage Engineer. Corp.
Holt, Rinehart & Winston
Ilikon Corp.
Isomet Corp.
Keithley Instruments
Klinger, J., Sci. App.
LaPine Scientific
Macalaster Scientific
Magnion, Inc.
Malaker Labs.
Maser Optics, Inc.
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McGraw-Hill Book Co.
Mikros, Inc.
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AUDIENCE

Over five thousand physicists and research specialists—members of the American Physical Society and the American Association of Physics Teachers. Over five hundred technical papers to be presented.

INQUIRIES

Inquiries should be addressed to Mr. T. Vorburger, Exhibit Manager, American Institute of Physics, 335 East 45th Street, New York 17, N. Y. MU.5-1940

in two principal subject areas: solid-propellant combustion and electromagnetic properties of high-temperature gases. Papers on topics of general interest to the Institute will also be presented.

For further information, write to the secretary of the Western States Section, Mr. Gilbert S. Bahn, 16902 Bollinger Drive, Pacific Palisades, Calif.

Ultrasonics

The 1962 Ultrasonics Symposium, sponsored by the Institute of Radio Engineers' Professional Group on Ultrasonics Engineering, will be held November 28-30 on the campus of Columbia University in New York City. The symposium committee has planned a program intended to cover both current developments and future trends in the field. A partial list of invited speakers and their papers appears below.

E. A. Hiedemann, Optical Effects of Ultrasonic Waves; A. Kiis, F. G. Hahneman, D. Hornbostel, and B. Small, A High-Frequency Ultrasonic Spectrum Analyzer; S. W. Tehon, Development and Application of Dispersive Ultrasonic Delay Lines; H. E. Bommel and K. Dransfeld, Microwave and Ultrasonic Absorption in Solids; R. C. LeCraw, High-Frequency Acoustic Losses in Ferromagnetic Insulators; H. Matthews and R. C. LeCraw, Acoustic Wave Rotation and Magnetoelastic Coupling; R. T. Denton and E. G. Spencer, Microwave Acoustic Measurements in Garnets; M. H. Seavey, Jr., Microwave Phonon Generation by Thin Magnetic Films; N. S. Shiren, Detection of Microwave Ultrasonics by Phonon-Photon Double Quantum Transitions; E. H. Jacobsen, Anomalous Dispersion of Ultrasonic Waves by Electron Spins; E. B. Tucker, Interactions between Microwave Phonons and Electron Spins in Solids; A. R. Hutson, Prospects for Active Ultrasonic Devices; and D. L. White, Ultrasonic Traveling-Wave Amplifier.

Inquiries concerning the conference should be sent to R. N. Thurston, Bell Telephone Laboratories, Murray Hill, N. J.

Radiation Measurement

A symposium on neutron detection, dosimetry, and standardization will take place December 10-14 in England at the Rutherford High Energy Laboratory, Harwell, under the sponsorship of the International Atomic Energy Agency. It will undertake a reconsideration and thorough investigation of parts of the subject matter of the IAEA's 1960 symposium in Vienna on selected topics in radiation dosimetry. Because of the rapid increase in the number of reactors and accelerators in the world, instrumentation and dosimetry techniques have required increasingly complex developmental work, and many new applications of radiation detection methods have been introduced in recent years.

The subjects for discussion will include problems of measurement of neutron field characteristics, neutron spectrometry (in connection with dosimetric problems),

detection and dosimetry of neutron and mixed neutron-gamma radiation, neutron-source standardization, and calibration of measuring instruments.

Further information can be obtained from the International Atomic Energy Agency, Room 2265, United Nations, New York 17, N. Y.

Mass Spectrometry

A one-day meeting on mass spectrometry will be held at Imperial College in London on December 19. Arranged by the British Institute of Physics and Physical Society, the meeting will feature invited talks and discussions on the following subjects: new instrumental techniques of isotope analysis, field-emission and ionization studies, ions and radicals in flames, the application of high-resolution techniques in mass spectrometry, and the theory of mass spectra.

Further information and application forms are available from the Administration Assistant, The Institute of Physics and The Physical Society, 47 Belgrave Square, London, S.W. 1, England.

APS to Meet in California

Stanford University will be host to the American Physical Society's 1962 Winter Meeting in the West, to be held from December 27 to 29. A joint session has been scheduled with the American Geophysical Union, which will hold its meetings at Stanford during the same period. Papers are invited for sessions on nuclear structure, high-energy physics, electron scattering, accelerator design, solid-state physics, low-temperature physics, masers and spectroscopy, plasma physics, and radio astronomy.

Requests for further information and abstracts of contributed papers (to be received before October 19) should be sent to Prof. W. A. Nierenberg, Department of Physics, University of California, Berkeley 4, Calif.

Ultra-High-Energy Nuclear Physics

Nuclear interactions at ultra-high energies will be the subject of a conference to be held January 7 and 8, 1963, in the H. H. Wills Physical Laboratory of the University of Bristol, England. The meeting is sponsored by the (British) Institute of Physics and Physical Society and will have as its main theme strong interactions at energies above 100 BeV observed in the cosmic radiation. Recent results from the CERN and Brookhaven accelerators will also be included where relevant.

The program is expected to include discussions of the following topics: (1) observations of high-energy cosmic-ray collisions with emulsions and ionization calorimeters, (2) particle production in 20-30-BeV accelerators, (3) the muon component and its interrelation with the characteristics of high-energy collisions, (4) extensive air showers and their propagation through the atmosphere, (5) phenomenological models