

MEETINGS

High-Temperature Materials

FUEL, moderator, and other reactor elements will be discussed at a topical meeting on high-temperature requirements and characteristics of materials for nuclear applications in land, sea, and space equipment, which is to be held in San Diego during the period April 11-13. The meeting is being organized by the San Diego Section of the American Nuclear Society. Subjects to be considered include a variety of specific reactors, direct conversion and electric propulsion devices, radioisotope generators, and nuclear rocket and ramjet engines. Those wishing to attend should contact J. F. Schumar, General Atomic, P. O. Box 608, San Diego 12, Calif.

Mathematics and Computation

TWO complementary symposia on the relations between mathematical research and high-speed computer technology will be held in mid-April under the auspices of the American Mathematical Society.

The first, a symposium on experimental arithmetic, is to be held as part of the Society's April 12-14 meeting at the University of Chicago. The symposium, which has the support of the Institute for Defense Analyses, will explore ways in which modern high-speed computing equipment might furnish enlightening experience with regard to outstanding mathematical problems, including those arising in other sciences. Design of arithmetical experiments, reduction and analysis of data obtained through such experiments, and relevant mathematical theories, such as the theory of Monte Carlo calculations, will be among the topics discussed. Table calculation and other nonexperimental subjects will be excluded. The following titles and authors have been announced: On Automatic Numerical Integration of Ordinary Differential Equations (A. Nordsieck), On the Use of Machines to Study Sequence Space Mappings (G. A. Hedlund), Few Particle Experiments in Statistical Mechanics (B. Alder), Unexpected Dividends in the Theory of Prime Numbers (J. B. Rosser), Eliminating the Irrelevant from Mechanical Proofs (M. Davis), and Computer Investigation of Orthogonal Latin Squares of Order Ten (E. T. Parker).

The second, a symposium on interactions between mathematical research and high-speed computing, will be sponsored by the Association for Computing Machinery and supported by the US Army Research Office and the National Science Foundation. It will be held in connection with a meeting of the Mathematical

Society which will take place April 16-19 at the Chalfonte-Haddon Hall Hotel in Atlantic City, N. J. The symposium is designed to aid scientists in learning more about the potentialities and problems involved in the use of modern computing devices and to stimulate activity in certain areas of mathematical research in which progress has not kept pace with computer technology. The five scheduled sessions of the program will cover the use of computers in pure mathematics, geophysics, and chemistry, tracing the paths of problems in these fields to the computer; problems in numerical analyses, and the nature and impact of computing machines.

Complete programs for the two symposia are to be found in the February issue of the *Notices of the American Mathematical Society*, and it is expected that the proceedings of both will be published by the Society in a single volume. Further information can be obtained from E. Pitcher, American Mathematical Society, 190 Hope Street, Providence 8, R. I.

Information Retrieval

RESEARCH, development, and operational activities related to machine literature-searching systems will be reviewed at a conference to be held April 18-20 at Western Reserve University under the sponsorship of the University's Center for Documentation and Communication Research of the School of Library Science. The theme is "Information Retrieval in Action" and the program will consider systems using an existing machine, the General Electric 225 general-purpose computer. Emphasis will be given to four areas of interest: (1) development and operation of mechanized systems for searching the literature of specific disciplines; (2) comparative testing and evaluation of information-retrieval systems; (3) administration and operation of such systems, with special emphasis on the basic unit operations involved; and (4) analysis of the fundamental problems underlying the operation of information-retrieval systems and an examination (based on search data) of practical and theoretical problems such as pertinency, the use of the thesaurus, and the application of models in documentation.

Further details can be obtained from the Center for Documentation and Communication Research Conference, Western Reserve University, 10831 Magnolia Drive, Cleveland 6, Ohio.

X-Ray Spectroscopy

A part of the program of the Mid-American Spectroscopy Symposium which will take place in Chicago from April 30 to May 4, two day-long sessions on x-ray spectroscopy are scheduled, the first being on absorption spectroscopy and the second on emission spectroscopy.

L. G. Parratt of Cornell University will open the absorption session on April 30 with an invited paper

entitled, "Problems in X-Ray Spectra: A New Type Energy-Level Diagram"; in the afternoon, W. W. Beeman of the University of Wisconsin will discuss some techniques and early applications of x-ray absorption spectroscopy. On May 1, the first invited paper will be given by K. F. J. Heinrich of the du Pont Experimental Station, who will review the development of applied x-ray emission spectrometry; the afternoon seminar will be given by B. L. Henke of Pomona College, who will speak on ultrasoft x-ray analysis in the 10-100 Å region.

The program also lists 16 other x-ray papers to be given during the two sessions. For further details, write to Elma Lanterman, Borg-Warner Corp., Wolf and Algonquin Roads, Des Plaines, Ill.

Reactors

TWO meetings on nuclear-reactor problems will be sponsored in Austria this spring by the International Atomic Energy Agency. The first, a symposium on reactor safety and hazards evaluation, will take place May 14-18 in Vienna. The program will include reports on major accidents involving nuclear reactors and will in general constitute a thorough review of the safety considerations which are essential in the design and operation of reactors.

The second conference (Salzburg, June 4-9) will deal with corrosion of materials used in cores and adjacent systems not exposed to radiation. Requests for further information should be addressed to the International Atomic Energy Agency, 11 Kärntnering, Vienna 1, Austria.

Ceramics

A SYMPOSIUM on the Physics and Chemistry of Ceramics is being organized by the Office of Naval Research to provide a review of the principles of solid-state physics and chemistry that are applicable to ceramics research and education, and to consider what steps might be taken to make the ceramics curricula more responsive to the future needs of ceramics. The meeting will be held May 28-30 at Pennsylvania State University, University Park, Pa. Participants, both speakers and audience, will be limited to an invited list of 75 individuals representing universities, industry, and government. The *Proceedings* of the symposium, including a record of the discussion that will follow each paper, will be published in the fall by Gordon and Breach, Inc., of New York City. Inquires regarding the meeting should be addressed to C. Klingsberg, Metallurgy Branch, Office of Naval Research, Washington 25, D. C.

Computing Systems and Automatic Control

MODERN computation techniques in industrial automatic control will be the subject of a colloquium to be held from May 28 through June 1 in

Paris. Sponsored by the International Association for Analog Computation (AICA), the French Association for Computation and Data Processing (AFCALTI), and the French Association of Automatic Control (AFRA), the meeting is expected to be the occasion for profitable exchange of information among designers, manufacturers, and users of computing systems. In addition to dealing with the techniques of analog and digital computation, including hybrid techniques, the colloquium will also be concerned with the industrial uses of automation.

For additional information, write to the Comité d'Organisation, Colloque sur les Techniques Modernes de Calcul et l'Automatique Industrielle, AFRA, 19 rue Blanche, Paris 9, France.

Image Formation and Vision

THE 6th Congress of the International Commission for Optics, which will take place August 19-26 in Munich, will deal with various physical, physiological, biological, and psychological aspects of image formation and vision, with preferred consideration given to papers concerning image structure, image receivers, and the behavior of the visual organ in relation to perception.

A partial list of the topics of papers already scheduled includes light receptors in animals, psychological problems of optical perception, image formation without silver, fiber optics, theoretical and experimental bases of laser problems, photochemistry of the retina, nonlinear systems, photometry of optical instruments, magnetic image formation, electrophysiological studies on eye movements, stimuli in vision, definition of the optical image, and the power of the eye in relation to visual and thermal hazards. Requests for additional information should be sent to H. Schober, University of Munich, Arnulfstrasse 205, Munich 19, Germany. The official languages will be English, French, and German.

American Physical Society

ABSTRACTS of papers contributed to the program of the Summer Meeting in the West of the American Physical Society should be sent by June 22 to the meeting's local secretary, Dr. H. A. Shugart, Department of Physics, University of California, Berkeley 4, Calif. The meeting will be held August 27-29 at the University of Washington in Seattle. In addition to the regular program, a session of invited papers will be sponsored by the Society's Division of Electron Physics.

Prospective registrants are cautioned that a World's Fair, the Century 21 Exposition, will be in progress in Seattle at the time of the meeting and that arrangements for accommodations should be made as quickly as possible. Requests for rooms in the University dormitories should be sent to the Office of Student Residences, University of Washington, Seattle 5, Wash.