

Plasma Physics Division meets in San Diego

Topics will include stellarators, tokamaks, space plasmas, inertially confined fusion, mirrors and general plasma physics

The 22nd Annual Meeting of the Division of Plasma Physics of The American Physical Society will be held in San Diego from Monday, 10 November, to Friday, 14 November. The headquarters hotel for this meeting will be the Town and Country Hotel and Convention Center. This year 1385 contributed papers will be presented, an 11% increase over last year's figure of 1254. The previous years' trend toward poster sessions continues with 1957 of the contributed papers in this format. In addition, there will be 43 invited papers.

Four review papers, each 50 minutes in length, will be presented at 8:30 am on Monday, Tuesday, Wednesday and Friday mornings, with no other sessions in progress at the same time. The authors of these papers have been asked to provide broad overviews of currently active topics for the benefit of members working in other areas of plasma physics. On Monday morning R. Grieger (IPP-Garching) will discuss stellarator research. "The Activity in the Solar System" will be presented by E. N. Parker (Enrico Fermi Institute) on Tuesday and G. E. Guest will talk on the Elmo Bumpy Torus on Wednesday morning. "The Reverse Field Pinch" will be discussed on Friday morning by J. N. Dimarco (Los Alamos).

Invited paper sessions

The invited papers at Monday morning's session on stellarators and compact toroids will include "Modular Stellarators" by J. A. Derr (University of Wisconsin); "Physics and Production of Spheromak Plasmas with Magnetized Coaxial Injectors" by J. Jarboe (Los Alamos); "Spheromak Research at PPL" by S. C. Jardin (Princeton University), and "MHD Stability of Sphero-

mak Plasmas" by John M. Finn (Naval Research Laboratory).

Monday afternoon's session on tokamaks will include "Results from the PDX Tokamak" by K. Bol (Princeton Plasma Physics Laboratory); "Theoretical Stability Studies of High Beta Equilibria Observed in ISX-B" by D. J. Sigmar (Oak Ridge); "Energy and Particle Confinement Studies in the Alcator Tokamaks" by D. Overskei (Plasma Fusion Center, MIT); "Investigation of Impurity Behavior and Hydrogen Recycling in ASDEX Tokamak" by M. Keilhacker (IPP-Garching), and "Dee-Shaped Plasma and Single-Null Poloidal Divertor Experiments in Doublet III" by A. Kitsunezaki (Japan Atomic Energy Research Institute).

At Tuesday morning's session on space plasmas the invited papers will be "Space Observations of Collisionless Shocks" by E. W. Greenstadt (TRW Systems); "Strong D. C. Anomalous Resistivity in a Magnetized Plasma" by P. J. Palmadesso (Naval Research Laboratory); "Reconnection in the Earth's Magnetosphere" by F. V. Coroniti (UCLA) and "Plasma Wave and Radio Emissions in Planetary Magnetospheres" by D. A. Gurnett (University of Iowa).

The theory and stimulation of plasmas will be the topic of Tuesday afternoon's session and the invited papers will be "Kinetic Effects on Ballooning Modes in Tandem Mirrors" by W. M. Tang (Science Applications, Inc.); "A Fluid Turbulence Model of Disruptive Instability" by D. J. Tetreault (Plasma Fusion Center, MIT); "Statistical Theories of Plasma Turbulence and Stochasticity" by J. A. Krommes (Princeton University); "Transport and Code Development" by H. Grad (New York University); "Wave-Driven Currents"

by N. J. Fisch (Princeton Plasma Physics Laboratory) and "Intrinsic Stochasticity and Diffusion in Nonlinear Dynamical Systems" by M. A. Lieberman (University of California, Berkeley).

The invited papers at Wednesday morning's session on mirrors and EBT will be "TMX Experimental Results" by P. Drake (Lawrence Livermore); "Microstability of Thermal Barriers in Tandem Mirrors" by W. M. Nevins (Lawrence Livermore); "EBT-S Results with 28 GHz Heating" by G. R. Haste (Oak Ridge) and "Three-Dimensional Numerical Modeling of the Elmo Bumpy Torus" by N. Winsor (Naval Research Laboratory).

Wednesday afternoon's session on general fusion physics will include "The Edge Plasma of Diverted Discharges in PDX" by D. K. Owens (Princeton Plasma Physics Laboratory); "Expanded Boundary Divertor Experiments in Doublet III" by J. C. Wesley (General Atomic Company); "Magnetic Field Ripple Studies on the ISX-B Tokamak" by J. F. Lyon (Oak Ridge National Laboratory); "Tokamak Plasma Heating and Current Maintenance with Intense Pulsed Ion Beams" by W. Manheimer (Naval Research Laboratory); "An Exploration of Tokamak Parameter Limitations on the TOSCA Device" by D. C. Robinson (Culham Laboratory, UK) and "Reduced-Density Channels in Gases at Atmospheric Pressure" by J. R. Greig (Naval Research Laboratory).

The Thursday sessions on inertially confined fusion will start in the morning with "Heavy-Ion Inertial Fusion: Target and Beam Propagation" by J. W.-K. Mark (Lawrence Livermore); "Heavy-Ion Inertial Fusion: The Driver" by A. M. Sessler (Lawrence Berke-

ley); "ICF Physics Requirements for High Gain" by S. Bodner (Naval Research Laboratory) and "Drivers for Light Ion Fusion" by J. P. Vandevender (Sandia).

Thursday afternoon's session will include "Microwave Experimental Simulations of Laser-Plasma Interactions" by N. C. Luhmann, Jr (University of California, Los Angeles); "Theory of Wavelength Scaling in Laser Fusion" by C. E. Max (Lawrence Livermore); "Experimental Studies of the Effect of Laser Wavelength" by E. Fabre (Laboratoire P.M.I. and Groupement Interaction Laser Matière, Ecole Polytechnique); "Wavelength Scaling Experiments on Spherical Targets" by D. C. Slater (KMS Fusion Inc.); "Behavior of the Raman and $2\omega_{pe}$ Instabilities in Large Plasmas Irradiated by Intense Laser Light" by D. W. Phillion (Lawrence Livermore) and "Theory and Simulations of the Modifications of Hydrodynamic Flow in Laser-Plasma Interaction" by K. Lee (Los Alamos).

General plasma physics will be the topic of Friday morning's session and the invited papers will include "Three-Dimensional Non-Linear Formulation of the Free Electron Laser" by P. Sprangle (Naval Research Laboratory); "Tearing and Reconnection in a Field Reversed Theta Pinch" by D. W. Hewett (Los Alamos); "Results for the Phaedrus Tandem Mirror" by D. K. Smith (University of Wisconsin, Madison); and "Magnetic Field Line Reconnection Experiments at UCLA" by W. Gekelman (UCLA).

Plasma physics banquet

The official banquet of the Division of Plasma Physics will be held at 8:00 pm on Wednesday evening in the Town and

Country Room. A no-host cocktail hour will be held in the North Foyer from 7:00 to 8:00 pm. Edward A. Friedman, Director of Energy Research for the Department of Energy will be the guest speaker. Tickets for the banquet will cost \$10 and must be purchased before 5:00 pm, Monday.

At the banquet Thomas H. Stix, assistant director of the Princeton Plasma Physics Laboratory, will receive the 1980 James Clerk Maxwell Prize "for his contributions to the development and formalization of the theory of wave propagation in plasmas and for his pioneering research on radio frequency plasma heating. His work has played the guiding role in the understanding of waves in space plasmas and in the development of advanced plasma heating methods for controlled fusion devices." (See this issue, page 83). Stix will deliver the Maxwell Prize Address at a special session scheduled for 8:30 am Thursday morning.

Other events and services

The 1980 Business Meeting of the Division of Plasma Physics will be held in the Cabinet Forum Room at 5:00 pm on Thursday evening. The innovation introduced last year into the format of the annual business meeting in an attempt to bring important new items of business to the attention of a larger number of members will be used again this year. The format results in new items of business being considered in the following order:

► Motions that have been written out (together with any supporting arguments) and submitted to the secretary before noon of the first day of the meeting. Copies of such materials will

be displayed on one of the bulletin boards in the registration area, giving members reasonable notice in case they wish to participate in the discussion and vote on such motions (motions should be handed in at the registration desk).

► Motions that have been written out and submitted to the secretary prior to the start of the business meeting.

► Any other new business.

For the second year, an equipment exhibit will be held in conjunction with the meeting. At press date, some 63 companies had reserved space at the show. The exhibitors will be showing array-processors, spectrometers, monochromators, cryogenic apparatus, photomultiplier tubes, surface-physics instrumentation, vacuum pumps, valves, gauges and systems, superconducting materials, electro-optical products, signal averagers, quadrupole mass analyzers and more.

The exhibit will be located in the Mission Ballroom of the Town and Country Hotel and Convention Center. There is no entry fee to the show, but visitors are requested to pick up guest badges at the exhibitor registration desk outside the ballroom. Show hours are noon to 7:00 pm on Tuesday, 10:00 am to 5:00 pm on Wednesday and 10:00 am to 3:00 pm on Thursday.

The registration desk will be in the Mission Foyer. Registration will be open from 1:00 to 8:00 pm on Sunday, 9 November, and will reopen at 8:00 am on Monday morning. Fees for registration will be \$30 for APS members, \$45 for nonmembers and \$2 for students.

A message center and communica-

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tion board will be located in the registration area. Incoming telephone messages should be directed to the Town and Country Hotel, (714) 291-7131, and the caller should ask for the Plasma Physics Division registration desk.

Leisure activities

San Diego is a very beautiful, friendly and tourist-oriented city. On Monday morning there will be a discussion of tour possibilities over coffee in the Tiki Room. Several local points of interest include the 125 acre San Diego Zoo, the beautiful Balboa Park, Old Town and the Wild Animal Park. In addition to organized tours there are many museums and art galleries in the area. At the time of the meeting the Kesler Art Gallery, 2481 Congress Street, Old Town, will display R. C. Gorman's latest signed/numbered stone lithographs; the Knowles Art Center, 7420 Girard Avenue, La Jolla, will exhibit "Oils of Mexican Life" by Alison Miner and the Laura Pollak Galleries, 855 West Harbor Drive, will show Paul Harmon's works on paper and canvas. A special showing of nearly 300 Peruvian gold objects will be on display at the San Diego Museum of Art, Balboa Park and "Poets and Painters", a creative collaboration between 12 poets and 25 painters will be on exhibit at the La Jolla Museum of Contemporary Art, 700 Prospect Street, La Jolla.

San Diego's cultural offerings extend into the evening hours with many fine concerts and theatrical presentations. Plays being presented during the week of the meeting include "Gemini", "The Heiress", "Night Must Fall", "The Best Little Whorehouse in Texas" and "A Penny for a Song." On the sports scene, the San Diego Chargers will meet the Denver Broncos on 9 November. For further information contact the San Diego Convention and Visitors Bureau at (714) 232-3101.

—BJ

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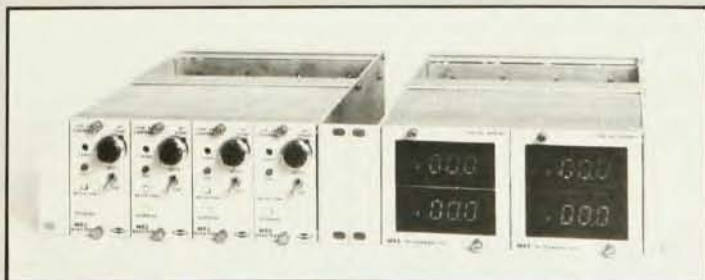
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