APS Plasma Division meets in New Orleans

Topics will include plasma astrophysics, tokamaks, rf, magnetic mirrors, stellarators, and general theory.

The 24th Annual Meeting of the Plasma Physics Division of the American Physical Society will be held in New Orleans from Monday, 1 November, through Friday, 5 November. Arrangements for the meeting have been made by a local committee at Oak Ridge headed by Hal H. Haselton. Sessions will be held at the designated headquarters for the meeting—the Hyatt Regency Hotel, Loyola Avenue at Poydras, in New Orleans. All meeting rooms, posters, and exhibits are located in the Regency Ballroom complex and French Market Exhibit Hall on the third level of the hotel, and on the balcony adjacent to the Regency Ballroom Foyer.

This year 1440 contributed papers will be presented, a slight increase over last year. These papers have been organized by a committee headed by Frank F. Chen and consisting of Lee Berry, Bill Grossman, George Johnston, Jay Kesner, Rip Perkins, Ned Sauthoff, and Jeff Thomson.

The scientific program will be divided into nine half-days of review, invited, and contributed papers. Review papers will be given in a daily plenary session; invited papers will be given each morning and afternoon at the same time as contributed paper sessions; and contributed papers may be presented either orally or by poster. The hotel facilities permit grouping all the posters into two adjoining large rooms adjacent to the oral sessions.

There will be a program of 46 invited papers, selected by a committee made up of David E. Baldwin, Herbert L. Berk, Ronald C. Davidson, David A. Hammer, Akira Hasegawa, Allan N. Kaufman, William L. Kruer, Rulon K. Linford, Dale M. Meade, George J. Morales, J. Leon Shohet, and Frank F. Chen (chairman). On Monday morning is the session on basic plasma physics; the second session, Monday afternoon, concerns plasma astrophysics. Scheduled for Tuesday morning is the session on applications of rf; next, that afternoon, is the session on tokamaks, followed by Wednesday morning's session on magnetic mirrors. That afternoon is the sixth session, on plasma theory, while Thursday's morning and afternoon topics are stellarators (the Rabinovich Memorial Session on stellarators) and inertial confinement fusion, re-

REVIEW AND INVITED PAPERS

MONDAY

Review

Electrostatic Plasma Double Layers. *Poul Michelsen*

Morning: BASIC PLASMA PHYSICS

Production and Observation of the Dissipative Trapped-Ion Instability. *Amiya K. Sen*

Non-Adiabatic Effects on the Ponderomotive Force Near Resonance. *Guy Dimonte*

Experimental Study of Neoclassical Currents. *Michael C. Zarnstorff*

Finite-Larmor-Radius ICRF Wave Experiments. *Masayuki Ono*

Afternoon: PLASMA ASTROPHYSICS

Hot Multicomponent Plasma in the Magnetospheres of Jupiter and Saturn. *Stamatios M. Krimigis*

Theory of Radio Pulsars. *Jonathan Arons*

Plasma Disks in Astrophysics. *F. Curtis Michel*

Stochastic Particle Acceleration in Astrophysics. *Jean Eilek*

Regular and Irregular Motion in Some Hamiltonians of Astronomical Interest. *George Lake*

Turbulence and Magnetic Fields in Extragalactic Radio Sources. *David DeYoung*

TUESDAY

Review

Free-Electron Lasers and High-Power Microwave Sources. *Charles W. Roberson*

Morning: APPLICATIONS OF RF

Current Drive Experiment in PLT. *Stefan Bernabei*

Lower Hybrid Heating and Current Drive in the Alcator-C Tokamak. *Jack J. Schuss*

Electron and Ion Cyclotron Heating in Symmetric Tandem Mirror STM-1. *Norman Lazar*

Whistler Mode Electron Cyclotron Emission. *Richard F. Ellis*

Afternoon: TOKAMAKS

Energy Confinement in Alcator C: The Neo-Alcator Scaling. *Ronald R. Parker*

High-Beta Studies with Perpendicular Neutral Beam Injection on PDX. *Robert J. Goldston*

Three-Dimensional Simulation of Resistive Instabilities in Tokamaks. *Donald A. Monticello*

Neutral Beam Heating Studies on the Doublet III Tokamak. *Keith H. Burrell*

High Beta Studies in ISX-B. *George H. Neilson Jr*

Theory of Anomalous Heat Transport Due to Resistive Ballooning Modes at High Beta. *Philippe L. Similon*

High-Beta Tokamak Equilibrium in Torus II: Measurement and Theory. *Gerald A. Navratil*

WEDNESDAY

Review

Drift Wave Turbulence and Anomalous Transport. *Wendell Horton*

Morning: MAGNETIC MIRRORS

Trapped-Particle Instabilities in Tandem Mirrors. *Marshall N. Rosenbluth*

spectively. The only session on Friday, in the morning, addresses alternate concepts. There will be four review papers, as well as the Maxwell Prize address.

A 35-mm projector and an overhead projector for vugraphs will be available in the invited, review, and contributed oral sessions. Special equipment such as a motion picture projector must be requested in advance. In addition, numerous rooms are available for informal discussions on the balcony that adjoins the meeting-room lobby.

Plasma/fusion show

For the fourth year, there will be an equipment exhibit, this year in the French Market Hall on the third level of the hotel. The show is scheduled for three days—Tuesday, 2 November, through Thursday, 4 November; times are 10 am to 5 pm on Tuesday and Wednesday, 10 am to 2 pm on Thursday. As usual, more than 50 companies have reserved space at the show to display a wide variety of new products; the special emphasis this year is on products relating to diagnostics and data acquisition.

There will be a placement center for prospective employers and employees, in the Dauphine and Royal Rooms, from Monday through Thursday, 9 am to noon and from 2 pm to 5 pm

Telephone messages can be left and received at the Plasma Physics Division registration desk, reached through the hotel switchboard; there will be a message center in the foyer.

Other activities

The official banquet of the Division of Plasma Physics will take place at 7:30 p.m. on Wednesday, 3 November, in Regency Ballroom DE, preceded by a no-host cocktail hour at 6:30 p.m. in the Regency Foyer. Tickets will be available—at $15 apiece—at the registration desk before 5 p.m. on Monday, 1 November. Maurice Goldhaber, President of the American Physical Society, will present the Maxwell Prize to Ira B. Bernstein. In addition, newly elected fellows of APS will be honored at the banquet. The after-dinner speaker will be Solomon J. Buchsbaum; his topic will be "US Science and Technology—What's Right, What's Wrong, What's Needed."

The Hyatt Regency Hotel is adjacent to the Louisiana Superdome and within walking distance of the French Quarter, famous for its history, its music, and its distinctive cuisine. Because of New Orleans' status as a year-round tourist city, there are numerous tour opportunities available in the hotel lobby. There will be a guest program, including a tour organized by the local committee, a guided walking or streetcar tour of the French Quarter, a visit to the Superdome, and a plantation tour. There will also be a coffee and get-acquainted session on Monday morning in the Le Club Room of the hotel.

Thursday evening features a riverboat cruise on the Mississippi River; for about $40 per person, the cruise includes transportation to and from the boat, exclusive charter of the boat, an open bar, bartenders and servants, a buffet dinner, and a Dixieland jazz band.

The Division of Plasma Physics will hold its annual business meeting in Burgandy A at 5 pm on Thursday, 4 November. New items of business will be 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. —JJI

Reduction of Neoclassical Losses in Magnetic Mirror Devices. *James R. Myra*

TMX Operation in Presence of Ion Cyclotron Fluctuations. *Thomas A. Casper*

RF-Sustained Experiments in the Phaedrus Tandem Mirror. *Noah Herschkowitz*

Afternoon: PLASMA THEORY

Fusion with Polarized Nuclei. *Russell M. Kulsrud*

Simulation and Theory of Holes and Clumps. *Thomas H. Dupree*

Theory of Two-Point Correlations for Drift Wave Instabilities. *Paul W. Terry*

Strange Attractors in Crises. *Celso Grebogi*

Transition to Turbulence in the Couette–Taylor System. *Harry L. Swinney*

Effect of Frequency Splitting on ECRH Heating and Superadiabaticity. *Thomas D. Rognlien*

Tearing Modes in High Temperature Plasmas. *James F. Drake*

THURSDAY

Maxwell Prize Address

Geometrical Optics Applied to Wave Propagation, Turbulence and Transport. *Ira B. Bernstein*

Morning: STELLARATORS

M. S. Rabinovich and Stellarators. *J. Leon Shohet*

The Evaluation of Transport in Stellarators. *Allen H. Boozer*

Design, Fabrication, and Initial Operation of IMS. *D. T. Anderson*

Beta Limits for Current Stellarator Experiments. *Paul R. Garabedian*

Stellarator Confinement of Net-Current-Free Plasmas. *Heinz Ringler*

Afternoon: INERTIAL CONFINEMENT FUSION

Basic Experiments on Laser Plasma Interactions. *Chan Joshi*

Coupling, Transport, and Compression Experiments with Spherical Targets. *Donald C. Slater*

Progress Toward Direct Drive Laser Fusion. *Martin C. Richardson*

Magnetic Field Induced Electron Transport and Fast Ion Emission and Their Impact on Laser Fusion. *David W. Forslund*

Ion-Beam Generation and Focusing. *Paul A. Miller*

FRIDAY

Review

Laser Wavelength Effects on Processes Important for Inertial Fusion. *E. Michael Campbell*

Morning: ALTERNATE CONCEPTS

High-Power-Density Fusion: The Compact Reversed-Field Pinch Reactor (CRFPR). *Robert A. Krakowski*

High-Beta Equilibrium and Stability of Pinch Discharges in OHTE. *Tervo Tamano*

Interferometric Studies of Short- and Long-Correlation-Length Plasma Density Fluctuations in the ZT-40M Reversed-Field Pinch. *Abram R. Jacobson*

Recent Advances in EBT Neoclassical Transport. *Daniel E. Hastings*

Experimental Investigation of the Spheromak. *Alan C. Janos*