APS Plasma Physics Division meets in New York City

Topics will include space plasma, laser fusion, mirrors, beam fusion, tokamaks, heating and simulation, and general theory

The 23rd Annual Meeting of the Plasma Physics Division of the American Physical Society will be held in New York City from Monday, 12 October, through Friday, 16 October. Arrangements for the meeting have been made by Gene Cunningham of the Grumman Aerospace Corporation. All sessions will be held at the designated headquarters for the meeting—the Sheraton Centre Hotel, located at 7th Avenue and 52nd Street in New York. This year 1380 contributed papers will be presented. These papers have been organized by a committee headed by Allan N. Kaufman (UCB, LBL) and consisting of M. Thompson, E. Chrien, R. Kulsrud, W. Lee, E. Meservey, W. Tang (all of PPPL), W. Gula (LASL), E. McLean (NRL), and J. Lavis (Grumman).

Four review papers, each 50 minutes in length, will be presented at 11:30 am on Monday, Tuesday, Wednesday, and Friday in the Imperial Ballroom A. There will be no sessions in parallel with these. At Monday's session, J. Greene will speak on "Some Aspects of Nonlinear Dynamics." Tuesday's session will feature J. Schmidt on "Tokamak Scaling and Modeling," while on Wednesday J. Hammer will speak on "Compact Torus: Theory and Experiment." At the final session on Friday, M. Porkolab will talk on "RF Heating and Current Drive in Fusion Plasma."

Plasma physics banquet

The official banquet of the Division of Plasma Physics will be held at 8:30 pm on Wednesday, 14 October, in Imperial Ballroom A. Before the banquet there will be a "no-host" cocktail hour, starting at 7:30 pm, in Imperial Ballroom B. Tickets for this subsidized banquet will be available only before 5:00 pm on Monday, 12 October, at the registration area. Tickets are $10 apiece. Isaac Asimov is scheduled to address the group after this year's dinner. In addition, the banquet will feature the presentation of the 1981 James Clerk Maxwell Prize to John H. Nuckolls, of Lawrence Livermore National Laboratory, "for his contributions to the genesis and progress of inertial confinement fusion. His insight into the fundamental physics issues has served to guide and inspire the technical evolution of the field." Nuckolls will deliver his Maxwell Prize address at a special session set for 11:30 am on Thursday, 15 October, in Imperial Ballroom A.

Other events and services

For the third year, an equipment exhibit will be held in Albert Hall at the Sheraton Centre, from Tuesday through Thursday (13–15 October). Hours for the exhibit are 10 am to 5 pm on Tuesday and Wednesday, and 10 am to 2 pm on Thursday. At press date, some 51 companies have reserved space at the show. The exhibitors will be showing a wide range of products, including monochromators, industrial

INVITED PAPERS

MONDAY

Morning: EBT, RFP, and reconnection

EBT Stability Theory. J. W. van Dam

EBT-S Results. R. J. Colchin

Improved Plasma Heating and Confinement in the ZT-40M Field Pinch. H. Dreicer

Magnetic Field Reconnection Rates. W. Park

Afternoon: Theory

Hamiltonian Theory of Guiding Center Motion. R. G. Littlejohn

Hidden Hamiltonian Structure in Infinite Dimensional Systems of Plasma Physics. P. J. Morrison

Large-scale Stochasticity in Hamiltonian Systems. G. Schmidt

Fractal Dimension of Power Spectra. S. Johnston

Variational Principle for Low-Frequency Stability of Collisionless Plasma. T. M. Antonsen Jr

Developments in the Theory of Drift Wave Turbulence in Toroidal Systems. P. Diamond

TUESDAY

Morning: Space plasma

The Solar Flare Plasma Machine. L. W. Acton

MHD Simulation of Magnetospheres. J. A. Fedder

Transversely Accelerated Ions above the Auroral Ionosphere. D. Klumpar

Plasma Waves in Saturn's Magnetosphere. F. Scarf

Afternoon: Tokamaks

MHD Activity in ISX-B—Correlation of Theory and Experiment. B. A. Carreras

Influence of Neutral Beam Injection on Impurity Transport on ISX-B. R. C. Isler

Perpendicular Neutral Beam Injection in PDX. R. J. Hawryluk

Results from Ohmic Heating Phase on Doublet III Tokamak. R. D. Stambaugh

Confinement Studies in the Alcator C Tokamak. S. M. Wolfe

Fusion Reaction Measurements on PLT and PDX. J. Strachan

gases, superconductors, vacuum products, amplifiers, mass spectrometers, turbomolecular pumps, connectors, detectors, cryomagnetic systems, precision optical equipment of various types, digital oscilloscopes, superconducting magnet systems, signal averagers, and much more.

A business meeting of the Division of Plasma Physics will be held in Royal Ballroom A at 5:30 pm, Thursday, 15 October. 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 wise 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.

Small conference rooms are available for special purposes, such as committee meetings, reunions, and informal group discussions.

The registration desk will be located in the lower lobby, in the foyer outside the entrance to Albert Hall. Registration will be open from 1:00 pm to 8:00 pm on Sunday, 11 October, and from 8:00 am to 5:00 pm on Monday through Thursday. Fees for registration (after 25 September) will be $30 for APS members, $45 for non-members, and $2 for students.

A message center and communication boards will be set up in the registration area. Incoming telephone messages should be directed to the Sheraton Centre Hotel, (212) 581-1000, and the caller should ask for the Plasma Physics Division registration desk.

Leisure activities

New York and the surrounding area provide an almost unlimited opportunity for sightseeing, entertainment, and dining. The city's reputation as a center for the performing arts rests in good measure on its theater. Specific listings are always readily available; shows being presented during the week of the meeting include such long-running hits as "A Chorus Line," "Evita," "Barnum," "Pirates of Penzance," "Dancin'," and "Fifth of July," to name just a few.

Manhattan also boasts some of the world's finest art museums. Notable among them are the Metropolitan Museum of Art (Fifth Avenue and 82nd Street), the Museum of Modern Art (11 West 53rd Street), the Museum of Natural History (Central Park West and 79th Street), and the Guggenheim Museum (Fifth Avenue and 89th Street), with its distinctive design by Frank Lloyd Wright. Further uptown, in Fort Tryon Park, is the Cloisters, a museum of medieval art.

As with anything else, sightseeing depends largely on how much time is available; nevertheless, there are certain places that even the most hurried visitor would not want to miss. The 102-story Empire State Building, the very symbol of New York City, offers a striking view of Manhattan from its observation deck. In Lower Manhattan, the World Trade Center with its 110-story towers provides a different but equally awesome panorama of the entire metropolitan area.

For concerts and opera, Lincoln Center (Broadway at 65th Street) consistently displays some of the world's finest talent. On the East Side one can visit the United Nations complex (right next door to AIP's headquarters building), and for a sampling of New York's patchwork ethnic fabric one can stroll through the Lower East Side's Little Italy and Chinatown, two exciting enclaves divided by Canal Street, a bargain-hunter's paradise.

One way to see the island of Manhattan is by boat. Aside from various tours, one can always take ferries from Lower Manhattan to either Staten Island or the Statue of Liberty; both trips afford postcard views of Lower Manhattan, including the World Trade Center and the financial district.

Fall programs and special activities for theater, concerts, museums, and so forth will be available at the meeting registration desk. Tours may be arranged on a few hours' notice; a fully staffed tour service is located off the main lobby of the Sheraton Centre. The local meeting chairman, Gene Cunningham, has made arrangements for tour discussions at the Monday coffee session in the Regency Foyer.

New York is served by three major airports: Kennedy (JFK), LaGuardia, and Newark. Buses and taxis to Manhattan are available at each. Also, a unique "Train to the Plane" (the JFK Express) operates regularly between Kennedy Airport and midtown Manhattan; buses for the train make stops at all terminals at JFK. Rental cars are not recommended; Manhattan parking is scarce and costly. —JJI

WEDNESDAY

Morning: Alternate concepts

Recent Experimental Results on Holiotron E. K. Uo

High Density Gas Puff Z-Pinch. A. Fisher

Equilibrium and Stability of Experimental High Beta Toroidal Plasmas. S. C. Prager

Propagation of Intense Charge-Neutral Ion Beams in Magnetic Fields. S. Robertson

Afternoon: Laser fusion

Implications of Recent CO_2 Experiments for Target Design. J. M. Kindel

Review of Plasma Interaction Experiments Using Up-Converted Nd-Glass Lasers. K. R. Manes

Implications of Short Wavelength Laser Matter Interaction Experiments for Iqnition. R. L. McCrory

Experiments on Underdense Laser-Plasma Instabilities. H. A. Daldis

The Interaction of Intense 1 μ and 0.5 μ Laser Light with Gas-Jet Targets. J. A. Tarvin

Ablative Acceleration of Targets to Near Laser-Fusion Conditions. B. H. Ripin

THURSDAY

Morning: Beam fusion

Light Ion Target Experiments. L. P. Mix

Intense Light-Ion Beam Transport. F. L. Sandel

Physics of Magnetically Insulated Ion Diodes. J. Greenly

Progress Towards Development of Anomalous Drivers for Inertial Confinement Fusion Devices. L. Thode

Afternoon: Mirrors

Ambipolar Potential Confinement in TMX. D. J. Correll Jr

MHD Stability Experiments in the Phaedrus Tandem Mirror. A. Molvik

The TARA Tandem Mirror Experiment. J. Kesner

Drift Pumping of Thermal Barriers. D. E. Baldwin

Axisymmetric Mirrors with High Mirror Ratios. A. Wong

FRIDAY

Morning: Heating and simulation

Ion Cyclotron Resonance Heating. H. Weitzner

ICRF Heating Experiments on PLT. D. Hwang

Observation of Mode Converted Ion Bernstein Waves in a Tokamak Plasma. W. A. Peeples

Millimeter Microwave Production from a Maser by Use of Electrons Orbiting a Positively Charged Wire (Synthetic Atoms). I. Alexeff

New Developments in Modeling Non-Linear Low Frequency Plasma Phenomena. J. Brackbill

All invited papers are to presented in Imperial Ballroom A.