

APS-AAPT meet in New York

The public perception of science and the uncommon pursuits of some physicists are among the highlights of the joint meeting, which returns to New York after three years.

Lectures by four Nobel Prize winners, a look at physicists in unusual or alternative settings, and an examination of the public's attitude toward science are among the highlights of the annual joint meeting of The American Physical Society and the American Association of Physics Teachers. The meeting will take place from Monday, 29 January, to Thursday, 1 February, and the headquarters of the meeting will be the New York Hilton. Advance registration will take place on Sunday from 6:00 to 9:00 pm, and regular registration will begin at 9:00 am on Monday. Unless otherwise noted, all morning sessions will begin at 9:00 am and all afternoon sessions at 2:00 pm.

APS special interest

The APS program for the meeting will consist of 30 invited-paper sessions and 26 contributed-paper sessions. The 331 contributed papers to this meeting is the smallest number of papers of this type at an annual meeting since 1955 (329). Because a downward trend in contributed papers has occurred since 1972, a joint ad-hoc APS-AAPT committee has been formed to determine what should be done about the joint annual meeting. Arnold Strassenburg (AAPT) and William W. Havens Jr (APS) request that suggestions from members be sent to them.

Those attending the 1979 joint APS-AAPT meeting will have the opportunity on Monday afternoon to hear lectures by two of the 1978 Nobel Physics Prize winners, Arno Penzias and Robert W. Wilson (Bell Labs), and by the winner of the 1979 AIP-APS Heineman Prize for Mathematical Physics, Gerard 't Hooft (University of Utrecht).

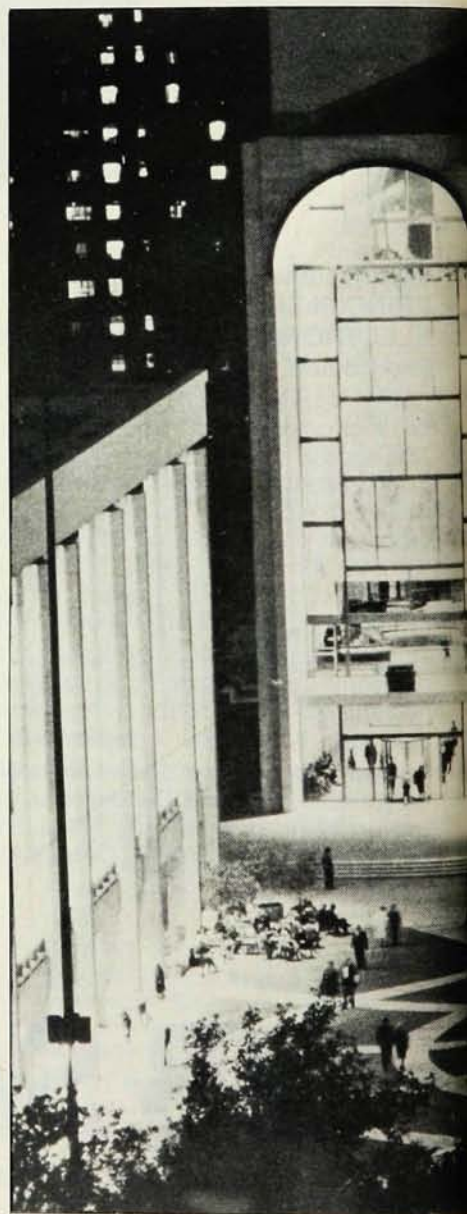
The APS Division of Condensed Matter Physics will sponsor a Tuesday-

morning session on "Physical Techniques in the Study of Art." Maurice J. Cotter (Queens College) will discuss "The Study of Paintings and Manuscripts Using Neutrons." Bernard Keisch (Brookhaven) will review "Mössbauer Effect Spectroscopy in Art and Archeology." A talk by Harry E. Gove (University of Rochester) on "Ultrasensitive Mass Spectrometry with Electrostatic Accelerators: Application to Radiocarbon Dating" will follow. Stuart Fleming (University of Pennsylvania) will close the session with an examination of "Thermoluminescence Authentication of Ancient Ceramics and Bronzes."

"The Hazards Associated with Non-Nuclear Energy Sources" will be discussed in a Tuesday-morning session organized by the Forum on Physics and Society. Gordon J. MacDonald (Dartmouth College and MITRE Corporation) will give "An Overview of the Impact of Carbon Dioxide on Climate." James A. Fay (MIT) will speak on the "Safety Hazards of LNG [Liquid Natural Gas] Accidents," and Merrill Eisenbud (NYU Medical Center) will review the "Health and Ecological Effects of Combustion Products."

Tuesday morning will also be the occasion for a symposium on "Charmed Particles and Results from DESY," sponsored by the Division of Particles and Fields. The invited speakers are Frank S. Merritt (Stanford University), Gustav Voss (DESY), G. Zech (Gesamthochschule Siegen) and J. K. Bienlein (DESY).

The Committee on Application of Physics will sponsor a Wednesday-morning session on "Ultrasonic Tissue Characterization." Invited to speak are Stanley Aks (University of Illinois),

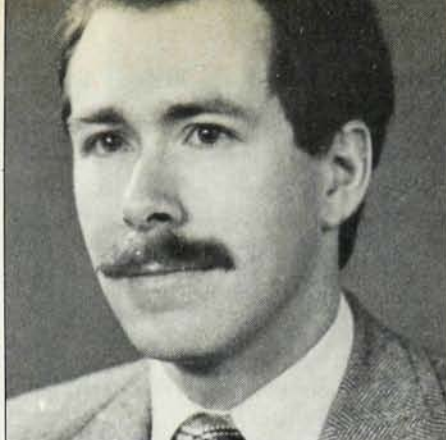




NIERENBERG

Donald W. Baker (University of Washington-Seattle), Reuben S. Mezrich (Johnson and Johnson) and Melvin Linzer (NBS).

On the same morning, a review session on "Fusion: Fission-Fusion Hybrids, DT Tokamaks and Advanced Fuels" will be held by the Division of Plasma Physics. Ronald Rose (Westinghouse) will lead off, and will be followed by Ralph Moir (Lawrence Livermore), James Manis-



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calco (Exxon Research and Energy Company), John Dawson (UCLA) and Dan Jassby (Plasma Physics Laboratory, Princeton).

"The Physics and Engineering of Biological Solar Energy Conversion" will be analyzed in a Wednesday-afternoon session organized by the Division of Biological Physics. Roderick K. Clayton (Cornell), Elias Greenbaum (Union Carbide), Wheeler J. North (Cal Tech) and John H.

N.Y. CONVENTION & VISITORS BUREAU



McGinn (General Electric) will present invited papers.

The APS annual business meeting will be held in the Hilton's Sutton Ballroom (center) at 11:30 am on Monday. Society members are invited to attend the APS Council meeting on Sunday, 28 January from 9:30 am to 5:00 pm. The Council meeting will be held in the Hilton's Murray Hill Suite (Room B), where seating for at least 75 observers will be available.

AAPT special interest

Highlights of the AAPT program include two short courses, a tutorial and several symposia. One of the short courses, "Aspects of Medical Physics for College Physics Teachers," will be held at the Memorial Sloan-Kettering Cancer Center on Saturday, 27 January, from 1:00 to 5:00 pm and on Sunday from 9:30 am to 5:00 pm. On Saturday evening participants will have the opportunity to tour Memorial Hospital and see equipment and demonstrations in the diagnostic facilities.

Max Dresden (SUNY, Stony Brook) will again conduct the short course "Particles: Quarks to Quasars" that he gave at the San Francisco annual meeting last year. The course will be given in two three-hour sessions, beginning at 10:00 am and 2:30 pm on Sunday, in Suite 543 of the Hilton. In the same room at 7:30 pm Wednesday, John Shonle (University of Colorado) will run a tutorial on "So You Want to Teach Musical Acoustics?"

The problems involved with recruiting and teaching special types of students will be explored in three symposia. "The Disabled Person and Physics" session on Tuesday morning will include not only lectures but also a showing of an award-winning film, "A Different Approach," that examines attitudes toward the disabled in employment. A symposium on "The Recruitment and Retention of Minority Students in Physics and Engineering" will be held on Wednesday afternoon. Approaches to the problems of the adult learner and the low-ability student will be discussed Thursday morning in a symposium on "Physics and the Special Learner."

Two other symposia are of interest. Physics teaching in England, Brazil and Germany will be discussed in a Tuesday-afternoon session sponsored by the Committee on International Education. Wednesday evening will be the occasion for a symposium on "Physics and the Arms Race."

Other activities organized by the AAPT include:

► open houses for high school and two-year college physics teachers—They will be held on Sunday, respectively, in the Madison Suite from noon to 6:00 pm and

Lincoln Center—N.Y. State Theater, Metropolitan Opera House, Philharmonic Hall

in Suite 548 from 7:00 pm to 9:00 pm.

► the semiannual Apparatus Competition—Entries will be on display in the Clinton Suite of the Hilton from 9:00 am to 5:00 pm Monday through Wednesday.

► the Film Show—Physics and physics-related films will be shown in the Madison Suite of the Hilton each morning Monday through Wednesday and also on Monday and Wednesday afternoons.

The AAPT business meeting will begin at 11:00 am Thursday in the Hilton's Le Petit Trianon. AAPT officers will be available to answer questions about the organization's policies and programs at a Wednesday 4:45 pm rap session in the same room.

The Society of Physics Students will sponsor two invited lecturers. On Monday morning, Harold Hovel (IBM Watson Research Center) will speak on "Frontiers in Photovoltaics." His talk will be followed by a session of contributed student papers. Max Dresden will assess "Black Holes: The Impact on Physics" in a lecture at 1:00 pm Wednesday. On Tuesday David Kraft (AIP Placement Director) will preside at a 1:00 pm session on "Jobs

for Physicists—Past, Present and Future."

Joint sessions

Joint APS–AAPT sessions will be held on Monday and Wednesday. The centenary of Albert Einstein's birth will be commemorated by a Monday-morning session. Invited speakers are Russell McCormach (Johns Hopkins University), Herman Schwartz (University of Arkansas) and Jeffrey Crelinsten (Université de Montréal).

AAPT and the Forum on Physics and Society will jointly sponsor a Monday-afternoon session on "Physicists in Unusual or Alternative Settings." Nobel Prize winner Rosalyn S. Yalow (Veteran's Administration and Mt. Sinai School of Medicine) will discuss "A Physicist in Biomedical Investigation." Another Nobel Prize winner, Tjalling C. Koopmans (Yale), will recall his "Experiences in Moving from Physics to Economics." Robert J. Goshen (Goshen and Papernick, Inc.) will examine "Opportunities in Commercial Computer Science," and Peter B. Miller (General Foods Corporation) will give his view of "Marketing

Research as Seen by a Physicist."

AAPT, SPS and the Committee on the Status of Women in Physics will jointly sponsor a Monday-afternoon session on "Women in Science: 1970's Profile." Jewel Plummer Cobb (Douglas College), Lynn O. Wilson (Bell Labs), Diana Steele (American Civil Liberties Union) and Susan Auslander, a consultant on math anxiety, are the invited speakers.

The public's attitude toward, and possible misunderstanding of, science will be discussed Monday evening at 7:00 pm. This session, sponsored by AAPT's Committee on Science for the General Public and APS's Forum on Physics and Society, will feature talks by C. P. (Ken) Gilmore (*Popular Science*), Edward Edelson (*New York Daily News*), and Florence R. Skelly (Yankelovich, Skelly and White, Inc.). A play, "I Hate Science," produced by Eustace Mendis (Ontario Science Center) will follow.

AAPT and the Division of Nuclear Physics of APS will sponsor a Wednesday-morning session on "What's New in Nuclear Physics for Undergraduates." William J. Vetterling (Harvard), James J. Egan (Lowell University), Ernest J.

Invited papers and special events

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AFTERNOON

Short course (AAPT): Aspects of Medical Physics for College Physics Teachers (continues on Sunday morning and afternoon)

MORNING AND AFTERNOON

Short course (AAPT): Particles: Quarks to Quasars *Dresden*

APS: Council meeting

MORNING

Cosmic Physics (APS): Cosmic Photons: Galactic and Extragalactic *Wood; Lamb; Mushotzky; Mather*

Chemical Physics (APS): Nozzles *Janda; Gentry; Smalley; McDonald*

Particles and Fields (APS): Recent Advances in High Energy Physics Apparatus *Breidenbach; Charkpak; Nygren; Sandweiss*

APS–AAPT: Einstein Centennial Symposium *McCormach; Schwartz; Crelinsten*

APS: Business meeting

AFTERNOON

Distinguished Speaker Symposium (APS): *Penzias; Wilson; 't Hooft*

Chemical Physics (APS): Ions *Woods; Lacy; Bondybey; Lineberger*

Committee on the Status of Women in Physics (APS), AAPT, SPS: Women in Science: 1970's Profile *Auslander; Cobb; Wilson; Steele*

Forum on Physics and Society (APS), AAPT: Physicists in

Unusual or Alternative Settings *Yalow; Koopmans; Goshen; Miller*

Committee on International Education (AAPT): International Contributions to Outstanding Ideas in the Teaching of Physics *Davies; Moeira; Nachtigall*

EVENING

Committee on Science and the General Public (APS–AAPT), Forum on Physics and Society (APS): Science and the General Public *Gilmore; Skelly; Edelson*

tues.

MORNING

Condensed Matter Physics (APS): Physical Techniques in the Study of Art *Cotter; Keisch; Gove; Fleming*

Electron and Atomic Physics (APS): Advances in Laser Technology *Maday; Nighan; Schneider*

Forum on Physics and Society (APS): Hazards Associated with Non-Nuclear Energy Sources *MacDonald; Fay; Eisenbud*

Particles and Fields (APS): Charmed Particles and Results From DESY *Merritt; Voss; Zech; Bienlein*

AAPT: The Disabled Person and Physics *Bedi; Daly; Lang; Meyers and Keith*

AAPT: Science Education R&D at NSF *Lipson*

AFTERNOON

Joint APS–AAPT Ceremonial Session: *Ramsey; Karplus; Kittel; Nierenberg*

EVENING

Cocktail Party (Sutton Ballroom—no host)

Moniz (MIT) and Steven Koonin (Cal Tech) will present invited papers.

Tuesday afternoon is reserved entirely for the Ceremonial Session, which will begin at 2:00 pm in the East Ballroom of the Hilton. The retiring APS President, Norman F. Ramsey (Harvard) will present the 1979 Dannie Heineman Prize for Mathematical Physics to Gerard 't Hooft (University of Utrecht); the latter will be cited "for his contributions to quantum field theory, in particular for his studies of the renormalization and other features of non-Abelian gauge theories."

't Hooft received his PhD from the University of Utrecht in 1972. His work on renormalization of gauge theories won him the 1974 Winkler-Prins Prize and the 1976 Akzo Prize in Holland. After a two-year fellowship at CERN, he became an assistant professor at Utrecht in 1974 and full professor in 1976. 't Hooft was the Morris Loeb lecturer at Harvard in early 1976.

Ramsey will then present the Leroy Apker Award to David Heckerman (UCLA). (See this issue, page 101). This new award is for outstanding achievement

by an undergraduate physics student. After Ramsey delivers his retiring presidential address, his successor, Lewis Branscomb (IBM) will turn the meeting over to Albert Bartlett, the president of AAPT.

Past AAPT president Robert Karplus will present the Oersted Medal (given for excellence in physics teaching) to Charles Kittel (University of California, Berkeley); Kittel will then give a talk entitled "Constructive Interactions." An Extraordinary Oersted Medal Award will be presented by Karplus to Paul Klopsteg, one of the founders of AAPT in 1930 and its president in 1940; he also established the Oersted Medal in 1932. The 36th Richtmyer Memorial Lecture, sponsored by AAPT, will end the Ceremonial Session. William Nierenberg, director of the Scripps Institution of Oceanography, will speak on "Physics and Oceanography."

Other events and services

A cash-bar cocktail party will be held in the Sutton Ballroom from 5:30 to 7:30 pm, immediately following the Ceremonial Session. The Societies will provide hors d'oeuvres.

The 27th Annual Physics Show, managed by Edward Greeley of the American Institute of Physics, will feature the latest advances in research instruments, apparatus and materials, as well as an extensive line of scientific books, periodicals and teaching aids. Over 105 exhibit booths will be set up on the second floor of the Hilton; they will be open from 10:00 am to 5:00 pm on Monday and Tuesday and from 10:00 am to 3:00 pm on Wednesday.

The Press Service headquarters (room 524 of the Hilton) will be managed by Audrey Likely of AIP on behalf of the APS. The service will arrange press conferences and interviews with scientists at the meeting for science writers and reporters; it will also distribute press releases and summaries in layman's language of presented papers.

The AIP Placement Center, in the Beekman Room of the Hilton, will be open from 9:00 am to 5:00 pm on the first three days of the meeting and from 9:00 am to 12:30 pm on Thursday. The primary purpose of the Center is to arrange personal interviews between physicists seeking employment and prospective

Tour (AAPT): Museum of Holography

Forum on Physics and Society (APS): Physics and Parapsychology *Schmidt; Hyman*

Electronics and Computers (AAPT): McWane

Tutorial (AAPT): So You Want to Teach Musical Acoustics? *Shonle*

MORNING

Electron and Atomic Physics (APS): Fundamental Advances in Atomic Physics *Greenberg; Ramsey; Calaprice; Gidley; Lepage; Forster*

Nuclear Physics (APS): General Interest *Moreh; Khoo; Iachello; Ginocchio*

Plasma Physics (APS): Fusion: Fission-Fusion Hybrids, DT Tokamaks and Advanced Fuels *Rose; Moir; Maniscalco; Dawson; Jassby*

Committee on Education (APS), AAPT: Demonstrations in Physics *Jossem*

Committee on Instructional Media and Film Repository (AAPT): Instructional Media *Zollman; Dowling*

AFTERNOON

General Interest Symposium (APS): Solar Neutrinos *Bahcall; Davis; Dostrovsky; Raghuvaran; Kropp*

Biological Physics (APS): The Physics and Engineering of Biological Solar Energy Conversion *Clayton; Greenbaum; North; McGinn*

Plasma Physics (APS): Plasma Physics *Gurnett; Phillion; Simonen; Prager; Furth*

Particles and Fields (APS): Supersymmetry and Symmetry Breaking *Zumino; Farrar; Susskind*

Committee on Physics in Minority Education (AAPT): The

Recruitment and Retention of Minority Students in Physics and Engineering *Mack; Puri; Kaufman*

AAPT: Rap Session with Officers

EVENING

Symposium (AAPT): Physics and the Arms Race *Lestingi; Tsipis; Boernstein; Schroeder; Dowling*

MORNING

Committee on the Application of Physics (APS): Ultrasonic Tissue Characterization *Aks; Baker; Mezrich; Linzer*

Particles and Fields (APS): Experimental Elementary Particle Physics *Williams; Prescott; Slattery*

Fluid Dynamics (APS): Turbulent Flames *Williams; Donaldson; Spalding; Owen; Daily*

Nuclear Physics (APS), AAPT: What's New in Nuclear Physics for Undergraduates? *Vetterling; Egan; Moniz; Koonin*

Committee on Physics in the Two-Year Colleges (AAPT): Physics and the Special Learner *Woodyard; Redden*

AAPT: Business meeting

AFTERNOON

Nuclear Physics (APS): Hypernucleus Investigations with Kaon Beams *May; Kisslinger; Pouh; Feshbach*

Particles and Fields (APS): Quantum Chromodynamics *Buras; De Grand; Appelquist*

Cosmic Physics (APS): Studies in the Solar System *Clayton; McElroy; Fisk; Simpson*

Electron and Atomic Physics (APS): Molecular Hydrogen (H_2D_2) *Ginter; Miller; Dalgarno; Truhlar; Kligler*

AAPT: Physics Laboratories *George; Layman*

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employers attending the meeting. David Kraft, Director of the Manpower Placement Division at AIP, will be available by appointment for personal consultation.

The National Science Foundation will have a table in the exhibit area (second floor of the Hilton). Reta Thomson (Public Information Branch) as well as many program managers from the physics, applied research and education divisions will be present during the meeting to advise those interested in participating in NSF programs. The NSF table will have the same hours as the Physics Show; the brochures "Guide to Programs" and "Grants for Scientific Research" will be available at the table.

Information on the APS insurance program will be distributed at a table in the registration area (second floor of the Hilton). Herbert Friedman, the administrator of this program, will be on hand to answer questions about it.

Outside the Hilton

The Times Square Theatre Centre (Broadway and 47th Street) sells half-price tickets to certain Broadway and off-Broadway shows, as well as to opera, ballet and concerts at Lincoln Center. Tickets are available on the day of performance only. A "New York Restaurant Guide" is available from the New York Convention and Visitor's Bureau at 90 East 42nd Street.

A number of museums are in the vicinity of the Hilton. The Museums of Modern Art, of Contemporary Crafts and of American Folk Art are, respectively, at 11, 29 and 49 West 53rd Street. The first is closed on Wednesdays, the others on Mondays. Those willing to venture further afield may wish to visit the American Museum of Natural History (Central Park West and 79th Street), the Cloisters (Fort Tryon Park), the Cooper-Hewitt Museum (Fifth Avenue at 91st Street), the Frick Collection (1 East 70th Street), the Solomon R. Guggenheim Museum (Fifth Avenue and 89th Street), the Metropolitan Museum of Art (Fifth Avenue and 82nd Street) and the Whitney Museum of American Art (Madison Avenue and 75th Street). All but the first are closed on Mondays.

The department of physics at City College will sponsor a tour of its facilities and a cocktail party on Wednesday, 24 January. A bus will leave the Hilton at 3:30 pm and, following the reception from 4:00 to 6:00 pm, will leave City College at 6:15 pm for the return trip to the Hilton. Sign up for the tour will place at the registration desk on Wednesday morning. For further information contact Erich Erlbach, tel: (212) 690-6832.

A special tour of the Museum of Holography (limited to 50 participants) on Tuesday evening has been arranged by AAPT. A bus will leave the Hilton at 7:00 pm; it will depart from the Museum, at 11 Mercer Street, at 9:30 pm. —CBW□