The APS Officers and Meetings Department staff extend sincere thanks to the unit Program Chairs and the abstract sorters who, during the past year, gave so generously of their time and expertise in sorting abstracts and organizing the program for the April Meeting.

APRIL MEETING 2010 PROGRAM COMMITTEE
April Meeting Program Chair: Robert Cahn, Lawrence Berkeley Natl Laboratory; April Meeting Program Co-Chair: Michael Turner, The University of Chicago; DAP: Dan McCammon, University of Wisconsin; DCOMP: Duane Johnson, University of Illinois at Urbana-Champaign; DNP: Bill Zajc, Columbia University; DPF: Patty McBride, Fermi National Accelerator Center; DPB: Christoph Leemann, Thomas Jefferson National Accelerator Facility; DPP: Steven Allen, General Atomics; GERA: Robert McGrath, Stony Brook University; GFB: Ubirajara van Kolck, University of Arizona; GGR: Steven Detweiler, University of Florida; GHP: Stan Brodsky, SLAC National Accelerator Laboratory; GPAP: Dmitri Uzdensky, Princeton University; GPMFC: John Gillaspy, National Institute of Standards and Technology; FPS: Charles Ferguson, Council on Foreign Relations; FHP: Daniel Kleppner, Massachusetts Institute of Technology and Martin Blume, American Physical Society, Editor in Chief, Emeritus; FIP: Noemie Koller, Rutgers University; FGSA: Sarah Caudill, Louisiana State University; FED: Lawrence Woolf, General Atomics; COM: Lynwood Randolph, LES Associates and Pablo Laguna, Georgia Institute of Technology; CSWP: Kawtar Hafidi, Argonne National Laboratory

APRIL MEETING 2010 SORTERS
Patrick Brady, University of Wisconsin-Milwaukee; Jill Dahlburg, Naval Research Laboratory; Steven Detweiler, University of Florida; Ben Gibson, Los Alamos National Laboratory; John Gillaspy, National Institute of Standards and Technology; Harald Griesshammer, George Washington University; Daryl Hartley, US Naval Academy; Elizabeth Hays, NASA-Goddard; Kara Hoffman, University of Maryland; Gloria Lubkin, American Institute of Physics (Emerita); Patricia McBride, Fermilab; Gabe Plunk, University of Maryland; Soebur Razaque, Naval Research Laboratory; Douglas Roberts, University of Maryland; Misak Sargsian, Florida International University; Robert Tribble, Texas A&M University; Gary White, American Institute of Physics; Bill Zajc, Columbia University
The American Physical Society gratefully acknowledges

**The Kavli Foundation**

for sponsoring the Kavli Foundation Joint Plenary Session:

**Re-Energizing America’s Focus on STEM Education**

**THE KAVLI FOUNDATION**

**Session E1 • Saturday, February 13, 2010 at 4:00 p.m.**

Marriott Ballroom Salon 1-2
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APRIL MEETING 2010

February 13–16
Marriott Wardman Park Hotel
Washington, DC

Held Jointly with the Winter Meeting of American Association of Physics Teachers

General Information
Welcome to the April Meeting 2010 of the American Physical Society. We hope you benefit from attending the fine program organized by the April Meeting Program Committee and joined with the winter meeting of AAPT, and that you enjoy your stay in Washington.

About the Program
The April Meeting will offer an outstanding scientific program consisting of three plenary sessions, approximately 75 invited sessions, more than 100 contributed sessions, and three posters sessions. The list of plenary talks appears under APS Meetings and Events on page 8.

Participating APS Units
Divisions: Astrophysics, Nuclear Physics, Particles and Fields, Physics of Beams, Plasma Physics, Computational Physics
Forums: Education, Physics and Society, International Affairs, History of Physics, and Graduate Student Affairs

Americans with Disabilities Act Statement
The APS wishes to take any steps required to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently due to the absence of auxiliary aids and services identified in the Americans with Disabilities Act. If any such services are necessary in order for you to participate in the April Meeting, please communicate your needs in advance to the APS Meetings Department.

Registration Location/Hours
On-site registration will take place in the Marriott Foyer. Registration hours are as follows:
- Friday, February 12: 2:00pm–7:00pm
- Saturday, February 13: 7:00am–5:00pm
- Sunday, February 14: 7:00am–4:00pm
- Monday, February 15: 7:00am–3:00pm
- Tuesday, February 16: 7:00am–10:00am

Badge Checking
You must register for the meeting in order to attend. Please wear your badge at all times during the meeting. There will be security personnel on-site checking for badges. Attendees without badges will not be allowed into the sessions.

E-mail Service
E-mail service will be available for attendees to retrieve and send e-mail messages in the atrium of Hall C during the following hours:
- Saturday, February 13: 7:00am–6:00pm
- Sunday, February 14: 7:00am–6:00pm
- Monday, February 15: 7:00am–6:00pm
- Tuesday, February 15: 7:00am–1:00pm

Wireless Access
APS is pleased to sponsor free wireless internet access for meeting attendees. Wireless access will be available in most common areas and the Exhibit Hall.

Audio-Visual Equipment
All rooms will be equipped with an LCD projector, overhead projector, screen, lavaliere microphone, and pointer. If you plan on doing a PowerPoint presentation, please bring your program on your own laptop computer, and be sure to visit the Speaker-Ready Room to run through your presentation to ensure that it goes smoothly during the session. When you arrive at the session in which you are speaking, if you are using the LCD projector, please have your laptop turned on and ready to go. If you require additional equipment it can be rented by ordering directly through APS's contracted A-V company servicing the meeting in Room 8228. Note: you are not allowed to bring/use your own projectors at the meeting.
You are strongly encouraged to visit the Speaker-Ready Room to run through your presentation. A-V technicians will be on-hand to assist you with any problems you might have according to the following schedule:

- **Friday, February 12**: 3:00pm–7:00pm
- **Saturday, February 13**: 7:00am–5:00pm
- **Sunday, February 14**: 7:00am–5:00pm
- **Monday, February 15**: 7:00am–5:00pm
- **Tuesday, February 16**: 7:00am–1:00pm

**Press Room**

*Park Tower 8219*

- **Saturday, February 13**: 8:00am–5:00pm
- **Sunday, February 14**: 8:00am–5:00pm
- **Monday, February 15**: 8:00am–5:00pm
- **Tuesday, February 16**: 8:00am–12noon

**Press Conference Room**

*Park Tower 8222*

A schedule of news conferences can be obtained from the Press Room—Park Tower 8219.

**APS Membership Desk**

*Atrium/Exhibit Hall C*

- **Saturday, February 13**: 8:00am–5:00pm
- **Sunday, February 14**: 8:00am–5:00pm
- **Monday, February 15**: 8:00am–5:00pm

Stop by the APS Membership Desk if you have questions about APS membership or journal subscriptions. The APS Membership Booth will be in operation throughout the meeting.

**APS Souvenir Store**

*Atrium/Exhibit Hall C*

Same hours as APS Membership Desk. Come browse our t-shirts, bumper stickers, and more.

**Student Resource Room**

*Park Tower 8216*

Have a little down time? Stop by the Student Resource Room to connect with fellow students. Society literature and refreshments will be available. To gain entry to the Student Resource Room, you must first go to the APS Membership Desk in Atrium C for an entry ticket. Attach the sticker to your badge.

- **Saturday, Sunday, Monday**: 10:00am–2:00pm

**Contact Congress**

*Atrium/Exhibit Hall C*

*Saturday through Monday*

Q: What’s the best-spent minute at the April Meeting?

A: Stopping by the Contact Congress booth to sign your name to letters to your Congressional delegation on the importance of federal funding for basic research. It takes only a minute. By doing so, you are making your voice heard in Washington and helping to influence the funding levels for physics research and education. To amplify the impact, the APS Washington Office follows up each letter with a call or visit to congressional staff.

**Be a Science Advocate**

The strongest and most persuasive advocates on Capitol Hill come from a Senator or Representative’s constituents. That means you! If you live in the United States, you are qualified to write to your members of Congress.

Contact Congress is sponsored by the APS Washington Office. If you have any questions about what is happening in DC, just stop by the Contact Congress desk to ask the experts.

**APS/AAPT Job Fair**

For employers and job seekers.

- **Monday, February 15**: 10:00am–5:00pm
- **Tuesday, February 16**: 10:00am–4:00pm

Contact: Alix Brice  
brice@aip.org
**Professional Skills Development Workshop for Women Post-Docs and Senior Tenured Women Physicists**

**Friday, February 12**
**Workshop**
8:00am–5:00pm  
*Delaware A*

The Professional Skills Development Workshop is a one-day workshop offering training on effective negotiation and communication skills for women post doctoral associates and tenure-track women faculty in physics. Workshop will be led by professional facilitators using an interactive format that encourages highly personal learning. Lunch will be provided and a reception for participants will follow the workshop. Pre-registration only.

**Reception Follows**
5:00pm–6:30pm  
*Delaware B*

**Reception is for participants only.**

**Student Career Panel & Networking Reception**

**Friday, February 12**
**7:00pm–10:30pm**  
*Thurgood Marshall South*

Spend an informal evening meeting and networking with fellow physics students and learn about a variety of career paths from several physicists. There will be opportunities to ask questions, share stories, and perhaps win a prize. Light fare will be served. This event is for students only.
Plenary Talks
Plan to attend the plenary talks at the 2010 April Meeting and hear some very exciting and informative talks by eminent physicists. Three exciting plenary sessions are planned for the Joint APS/AAPT meeting. There will be three talks by prominent speakers in each plenary session.

Plenary Session I
The Kavli Foundation Joint Plenary Session: Re-Energizing America’s Focus on STEM Education
Saturday, February 13
4:00 pm–6:00 pm
Marriott Ballroom Salon 1–2
Jointly organized by the APS, AAPT, National Society of Black Physicists and the National Society of Hispanic Physicists.

Session Chair
Alex Dickison, AAPT President and Seminole State College of Florida

Catalyzing Wide-Spread Implementation of Good Teaching Practices
Linda Slakey, Acting Executive Officer of the Education and Human Resources Directorate, NSF

The Value of Diversity in STEM
Shirley Malcom, American Association for the Advancement of Science

The Algebra Project's Strategy to Accelerate the Nation's Bottom Quartile Students' Math Education and Get Them Ready for College Math
Robert P. Moses, The Algebra Project

Plenary Session II
Monday, February 15
8:30 am–10:30 am
Marriott Ballroom Salon 1–2
Co-Sponsored: APS and AAPT

Session Chair
Barry C. Barish, APS President-Elect and Caltech

A Space Program Worthy of a Great Nation
Norman R. Augustine, Retired Chairman and CEO, Lockheed Martin Corporation

Nucleon Spin Puzzle
Naomi Makins, University of Illinois at Urbana-Champaign

Surface Temperature Responses to Natural and Anthropogenic Influences: Past, Present and Future
Judith Lean, Naval Research Laboratory

Plenary Session III
Tuesday, February 16
8:30 am–10:30 am
Marriott Ballroom Salon 1–2
Co-Sponsored: APS and AAPT

Session Chair:
Michael Turner, University of Chicago

Cosmology with the Cosmic Microwave Background
John Carlstrom, Kavli Institute, University of Chicago

Early Results from the Kepler Mission
William Borucki, NASA Ames Research Center

The Search for the Higgs Bosons and More at the Tevatron Collider
Rob Roser, Fermilab

APS April Meeting Town Hall: What can physicists do to help solve the energy-climate problem?
Saturday, February 13
6:15pm–7:45pm
Thurgood Marshall South

There is broad – if not quite unanimous - agreement in the scientific community that increasing demands for energy threaten to bring significant global warming with potentially devastating consequences. What can physicists do to help solve the energy-climate problem?

The APS-2010 Program Committee is pleased to invite you to attend a Town Hall meeting to address this question at 6:15 pm, Saturday, February 13, in the Thurgood Marshall South. The meeting will serve as a forum for the exchange of ideas among experts in energy and climate policy and research. It will feature remarks by a distinguished slate of guest panelists, followed by panel and community debate moderated by Dick Meserve (Carnegie Institution).

The Town Hall panelist remarks will include discussion of:
• Climate Issues, as represented by Dr. Margaret Leinen (Climate Response Fund);
• Energy Efficiency, as represented by Pat Dehmer (DOE);
• Future Renewables and Batteries Prospects, as represented by Richard Colton (NRL);
• Nuclear: Fission & Fusion Solutions, as represented by Robert Rosner (Argonne);
• APS Perspective, as represented by Burt Richter (Chair, APS Energy Study)
We hope to see you at this Town Hall meeting for what is sure to be an exciting and productive discussion.

Meet the APS Journal Editors
Sunday, February 14
3:30pm–5:30pm
Marriott Foyer, Mezzanine

The editors of Physical Review C, D, and Letters, Review of Modern Physics, Physical Review Special Topics—Physics Education Research, and Physics, cordially invite you to join them for conversation and refreshments. Your questions, criticisms, compliments and suggestions about the journals are welcome. We hope you will attend.

APS Prizes and Awards Ceremonial Session and APS Past President’s Address – Session L1
Sunday, February 14
5:30pm–6:30pm
Thurgood Marshall West

Prizes and awards will be bestowed on individuals for outstanding contributions to physics. Please plan on attending the Awards Program and join us in honoring these individuals.

Presentation by the Outgoing APS President
Cherry Murray: “APS, Physics: Aspirations and Goals”

See page 13 for a list of Prize & Award winners.

A Module from the Algebra Project:
Mathematical sentences in elementary algebra:
What they mean, and why they are true or false on the basis of what they mean
Sunday, February 14
2:00pm–3:30pm
Washington 2

Robert Moses, assisted by students and teachers from New York City, will present a classroom demonstration.

APS/AAPT Welcome Reception
Held in conjunction with the evening poster session and the opening of the exhibits.

Sunday, February 14
7:00pm – 9:00pm
Exhibit Hall C

All April Meeting attendees are invited to attend and join your colleagues for refreshment, discussion with poster presenters and visit the exhibits.

APS Editorial Q&A – Session Q15
Monday, February 15
2:30pm–3:30pm
Wilson A

Following a brief ‘State of the Journals’ address by APS Editor in Chief, Gene Sprouse, moderated questions and comments will be invited. Editors from Physical Review C, D, and Letters, Physical Review Special Topics—Physics Education Research, and Physics will also be on hand to provide responses. Topics for discussion might include: possible enhancements of both content and delivery, implications of open access, APS copyright, impact factors, growth in submissions, efficiency of the selection process, the quality of published articles, Outstanding Referees, or PRL’s recent reinvigoration of its standards. The editors look forward to a productive exchange.

Public Lecture: From Edible Lasers to the Search for Earth-like Planets: Five Decades of Laser Spectroscopy
Monday, February 15
7:00pm–8:30pm
Thurgood Marshall West

Speaker: Theodor Hänsch, Director, Max-Plank-Institute für Quantenoptik, Professor Ludwig-Maximilians Universität München, Germany

Dr. Hänsch won the Nobel Prize in Physics (2005) with John L. Hall for developing laser-based precision spectroscopy.
High School Physics Teachers Day  
Friday, February 12  
7:30am–2:45pm  
Thurgood Marshall North & West

In conjunction with the 2010 APS April Meeting and the American Association of Physics Teachers (AAPT) Winter Meeting, the APS and the AAPT are jointly sponsoring a High School Physics Teachers Day for teachers in the Washington, DC area.

The program includes:

- Video on the LIGO gravitational wave Observatory, with Q & A
- Three sessions of hands–on workshops
- Breakfast—a chance to network with fellow teachers
- Lunch with a physicist

For further information, contact Ed Lee – lee@aps.org

Student Career Panel & Networking Reception  
Friday, February 12  
7:00 pm–10:30 pm  
Thurgood Marshall South

Cost: Free to Students  
This event is for students only.

Are you looking for some guidance on conducting a successful job search? Would you welcome an opportunity to informally network with your peers as well as employers who can give you advice on your future career plans? Come to this free Career Panel & Networking Reception, where you will learn the steps you should take to maximize your job-seeking efforts, how to refine your CV or Resume to standout, and how to use networking as a tool for taking your job search to the next level. There will be opportunities to put your newly acquired networking skills into practice. Light fare and dessert will be served after the main speaker.

COM/CSWP Networking Reception  
Saturday, February 13  
6:00pm–8:00pm  
Hoover

Come learn about the work of the Committee on Minorities in Physics (COM) and the Committee on the Status of Women in Physics (CSWP), network with colleagues, and unwind after a long day of sessions.

AIP Broadcast Award Film Showing  
“Absolute Zero” (PBS Production)  
Saturday, February 13  
7:00pm–9:30pm  
Thurgood Marshall East

Free Film Screening + Q&A with the Filmmakers

Conference attendees are invited to step into the cold by attending a free screening of the NOVA PBS documentary “Absolute Zero,” winner of the 2009 American Institute of Physics Science Broadcast Award. The film brings to life the centuries-old quest to achieve extremely low temperatures through historical recreations and interviews with noted scientists, including Nobel laureates Eric Cornell, Carl Wieman and Wolfgang Ketterle. Along with the screening, film makers David Dugan (producer/director) and Tom Shachtman, who wrote the book upon which the movie is based, will be on hand to answer questions about the production and discuss the process of bringing the history of science to life through writing, film, and television. For more information, contact Jason Bardi at jbardi@aip.org.

Student Resource Room  
Saturday through Monday  
10:00am–2:00pm  
Park Tower 8216

Have a little down time? Stop by the APS Student Resource Room to connect with fellow students. Society literature and refreshments will be available. To gain entry to the Student Resource Room, you must first go to the APS Membership Desk in the Governors Square Foyer for an entry sticker. Attach the sticker to your badge.
Future Physicist Days
Careers for Physicists Luncheon
Sunday, February 14
12:00n–1:30pm
Coolidge

Monday, February 15
Student Awards and Physics Jeopardy
5:15pm–7:00pm
Meeting Sponsors

CSWP/DPF Luncheon for Women in Physics
Monday, February 15
12:00 noon–1:30 pm
Coolidge

Who May Attend
All are welcome, both men and women.
Cost: $20, Students: $5.00
NOTE: Luncheon costs have been partially defrayed through the generosity of the Division of Particles & Fields (DPF).

Enjoy a full buffet luncheon, hear an informal talk, and enjoy an opportunity to network with colleagues.

When pre-registration closes (February 1) you must wait to purchase tickets onsite at the APS registration desk at the Marriott. If any seats remain, tickets will be at the Balances Due Desk at the APS Registration Desk. No tickets will be sold at the luncheon.

Graduate Students Lunch with the Experts
Sunday, February 14
12:00pm–1:30pm
Wilson A/B

Graduate students can sign up on-site to enjoy a complimentary box-lunch while participating in an informal discussion with an expert on a topic of interest to them. Sign-up will take place beginning on Saturday, May 2 at 1:00pm at the APS registration desk, and will be on a first-come, first-served basis. Attendance is limited to eight students per topic.

Graduate Student Lunch Topics
DAP Tables:
“Gamma-Ray Bursts”
Expert: Matthew Baring, Rice University

“Science Consulting and The Big Bang Theory TV Sitcom”
Expert: David Saltzberg, UCLA

“Can Gamma Rays Shed Light on Dark Matter?”
Expert: Simona Murgia, SLAC KIPAC

“Catastrophic Stellar Explosions”
Expert: Alicia Soderberg, Harvard University

Companion’s Welcome Breakfast
Saturday, February 13
8:30am–10:00am
Coolidge

Cost: Free
Open to companions and families only.

Please be on-time. Breakfast served from 8:30am–9:30am—food service will stop at 9:30am. Presentation at 9:30am.

Companions of the attendees of the April Meeting are invited to a complimentary breakfast to meet other companions and learn about the city of Washington, DC. A continental breakfast will be available from 8:30am–9:30am. A presentation will be made at 9:30am by a representative of the Washington DC Convention and Visitors Bureau.

At the breakfast you will receive information about the sites and attractions of the city of Washington. The breakfast is restricted to companions and families of April Meeting attendees—April Meeting registrants not admitted.

When pre-registration closes (February 1) you must wait to purchase tickets onsite at the APS registration desk at the Marriott. If any seats remain, tickets will be at the Balances Due Desk at the APS Registration Desk. No tickets will be sold at the luncheon.
**APS EVENTS/MEETINGS FOR SPECIAL GROUPS**

**DPF Tables:**
“Exploring Physics at the Energy Frontier”
Expert: Cecilia Gerber, University of Illinois at Chicago

“My 50 Years in Particle Physics: From Parity Violation to the LHC”
Expert: J. D. Jackson, Lawrence Berkeley National Laboratory

**FEd Table:**
“The Transition from Graduate Student to Faculty Member: Lessons Learned in Teaching and Research”
Expert: Andrew Kunz, Marquette University

**FHP Table:**
“Tales about Physics, Physicists, and Their History”
Expert: Gloria Lubkin, Editor Emerita, *Physics Today*

**GPMFC Tables:**
“Lasers for Spectroscopy and Frequency Stabilization”
Expert: John Hall, University of Colorado

“Building Scientific Apparatus”
Expert: Michael Coplan, University of Maryland

**Estate Planning Seminar**
Monday, February 15
1:00pm–2:30pm
Taylor

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**APS UNIT BUSINESS MEETINGS**

**Monday, February 15**
12:00n–1:00pm

DPB Business Meeting
Wilson B

**Monday, February 15**
5:30pm–6:30pm

DPF Business Meeting
Virginia A

FPS Business Meeting
Delaware B

FED Business Meeting
Washington 5

DNP Business Meeting
Delaware A

FHP Business Meeting
Maryland C

DAP Business Meeting
Washington 6

GGR Business Meeting
Washington 4

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**SATELLITE MEETINGS**
(Events sponsored by non-APS groups)

**National User Facility Organization (NUFO) Display**
Saturday, February 13–Monday, February 15
8:30am–5:30pm
Washington Rooms Corridor (exhibit level)

**The National Ignition Facility-Station and Prospects**
Saturday, February 13
7:00pm–9:00pm
Thurgood Marshall West
2010 PRIZES AND AWARDS

HANS A. BETHE PRIZE
SESSION D2
For seminal contributions to the experimental determination of nuclear cross-sections in stars, including the first direct measurement of the key 3He fusion reaction at solar conditions.

Claus Rolfs  
Ruhr-Universität Bochum, Emeritus

ANEESUR RAHMAN PRIZE FOR COMPUTATIONAL PHYSICS
SESSION S4
For brilliant computational solution of a fundamental problem in Einstein’s theory of General Relativity, the collision of two black holes, with implications for fundamental physics, astrophysics, and gravitational wave observations.

Frans Pretorius  
Princeton University

TOM W. BONNER PRIZE IN NUCLEAR PHYSICS
SESSION D2
For development of quantitative, ab initio calculations of the properties of nuclei from A=6 to A=12, including deep physical insight into the nature of nuclear forces and the application of state-of-the-art computational physics.

Steven C. Pieper  
Argonne National Laboratory

Robert B. Wiringa  
Argonne National Laboratory

ANDREI SAKHAROV PRIZE
SESSION S5
For tireless and effective personal leadership in defense of human rights of scientists throughout the world.

Joseph Birman  
CCNY-CUNY

Morris (Moishe) Pripstein  
National Science Foundation

HERNAN PANOFSKY PRIZE IN EXPERIMENTAL PARTICLE PHYSICS
SESSION H1
For major contributions to studies of neutrino interactions, especially studies of solar neutrinos demonstrating unequivocally the existence of neutrino flavor oscillations.

Eugene W. Beier  
University of Pennsylvania

Herman Winick  
SLAC
2010 PRIZES AND AWARDS

J.J. SAKURAI PRIZE FOR THEORETICAL PARTICLE PHYSICS
SESSION P1
For elucidation of the properties of spontaneous symmetry breaking in four-dimensional relativistic gauge theory and of the mechanism for the consistent generation of vector boson masses.

Robert Brout
Université Libre de Bruxelles

François Englert
Université Libre de Bruxelles

Gerald S. Guralnik
Brown University

Carl R. Hagen
University of Rochester

Peter W. Higgs
University of Edinburgh, Emeritus

T.W.B. Kibble
Imperial College

ROBERT R. WILSON PRIZE FOR PARTICLE ACCELERATORS
SESSION H1
For critical and enduring efforts in making the Tevatron Collider the outstanding high energy physics accelerator of the last two decades.

John Peoples, Jr.
Fermilab

Herman B. White
Fermilab

EDWARD A. BOUCHET AWARD
SESSION H1
For his contributions to KTeV experiments and the establishment of a new kind of interaction distinguishing matter from antimatter, as well as his outstanding public service and mentorship roles.

Herman B. White
Fermilab

JOSEPH A. BURTON FORUM AWARD
SESSION X5
For broadening the public understanding of science in Pakistan and for informing the public of the dangers of the nuclear arms race in South Asia.

Pervez Hoodbhoy
Quaid-e-Azam University

Abdul Nayyar
Sustainable Development Policy Institute
2010 PRIZES AND AWARDS

EXCELLENCE IN PHYSICS EDUCATION AWARD
SESSION S6

For twenty-three years of national and international leadership in the design, testing, validation, and dissemination of research-based introductory physics curricula, computer tools and apparatus that engage students in active learning based on the observation and analysis of real phenomena.

Priscilla Laws
Dickinson College

David Sokoloff
University of Oregon

Ronald K. Thornton
Tufts University

CALEM R. HOFFMAN
Florida State University

LEO SZILARD LECTURESHIP AWARD
SESSION D5

For his outstanding work and leadership in using physics to illuminate public policy in the areas of nuclear arms control and nonproliferation, nuclear energy, and energy efficiency.

Frank von Hippel
Princeton University

CALEM R. HOFFMAN
Florida State University

NUCLEAR PHYSICS DISSERTATION AWARD
SESSION Y5

For his dissertation describing the investigation of neutron-rich isotopes at the drip line, and, in particular, for the identification of a systematic reduction in the effective p-sd shell gap, indicating a weakening of the gap as neutrons are added.

Tingjun Yang
Stanford University

MITSUYOSHI TANAKA DISSERTATION AWARD IN EXPERIMENTAL PARTICLE PHYSICS
SESSION Y5

A study of muon neutrino to electron neutrino oscillations in the MINOS experiment.

MITSUYOSHI TANAKA DISSERTATION AWARD IN EXPERIMENTAL PARTICLE PHYSICS
SESSION Y5

A study of muon neutrino to electron neutrino oscillations in the MINOS experiment.
Program Time-Blocks
Saturday: A–F
Sunday: G–M
Monday: N–T
Tuesday: V–Z
There are four time blocks for each day of the meeting.
(Saturday, Monday and Tuesday: 8:30am, 10:45am, 1:30pm and 3:30pm; Sunday: 8:30am, 10:30am; 1:15pm and 3:15pm.)
The time blocks are designated in alphabetical order beginning with time block “A” on Saturday at 8:30am, and ending with time block “Z” designating the 3:30pm session on Tuesday. See the Epitome for details.

Poster Codes
Posters are numbered sequentially.

Poster Presentations
If you are presenting a poster, please be sure to have your poster up prior to the start of the session to which you have been assigned, and taken down immediately at the end of the session. APS will not be responsible for posters left up after the end of each poster session. No A-V is allowed in the poster sessions. Posters will be on display between the hours of 10:00am to 5:00pm on the scheduled day of poster presentation. Consult the Poster Session Schedule (below) for exact times and a breakdown of poster topics.

Poster Session Schedule
Session C1: Poster Session I
Saturday, February 13
1:00–4:00pm
Exhibit Hall A-B
1 - 4 Accelerator Systems; Radiation Sources; and Beam Physics
5 - 6 Computational Physics
7 - 14 Energy Research and Applications
15 - 38 Astrophysics
39 - 50 Plasma Physics

Session M1: Poster Session II
Sunday, February 14
7:00–9:00pm
Exhibit Hall A-B-C
1 - 14 Few-body Systems and Nuclear Physics
15 - 20 Particles and Fields
21 - 28 Particle Theory
29 - 44 Undergraduate Research (Including Society of Physics Students)

Session R1: Poster Session III
Monday, February 15
2:00–5:00pm
Exhibit Hall A-B
1 - 14 Physics Education
15 - 29 General Relativity and Gravitation
30 - 45 Tests of Physical Laws

Session W1: Poster Session IV
Tuesday, February 16
10:30am–1:30pm
Exhibit Hall A-B
1 - 37 Post-deadline

A-V Policy at the April Meeting
In the interest of ensuring a professional and smooth-running meeting, the American Physical Society’s A-V policy is as follows:

General A-V Policy
In keeping with our legally binding contract with our A-V vendor, speakers are not permitted to bring their own projection equipment for use at the meeting.

Standard A-V in all Sessions
The standard A-V package consists of an LCD projector, overhead projector, screen, laser pointer and lapel microphone. Any additional A-V equipment must be rented by the speaker directly through APS’s designated A-V provider. The speaker is responsible for the cost of renting any additional equipment.

Policy and Guidelines on Use of LCD Projectors
The responsibility for a smooth, technically trouble-free presentation ultimately rests with the presenter. Speakers who plan to use LCDs must do the following:

• Bring your own laptop computer, power cord, and any proprietary cords required for your computer.

• Visit the Speaker-Ready room (Park Tower 8226) provided by APS to run through the presentation to ensure a smooth and technically trouble-free presentation. Testing your presentation in the Speaker-Ready room prior to your presentation is strongly recommended to minimize equipment compatibility difficulties. If you encounter difficulties, consult with the A-V technicians.

• Bring a back-up vu-graph presentation in case there are set-up difficulties with the LCD equipment.
NOTE: The APS is not responsible for the security of personal laptop computers. The APS strongly recommends that LCD projectors not be used for contributed talks (12 minute talks). The presentation schedule must be maintained, and as is too often the case, the set-up of the laptop/projector can be problematic, using up valuable presentation time.

Guidelines for Speakers

Oral Presentations

Please arrive at least 15 minutes prior to the scheduled time of your talk. Contributed papers are allocated 12 minutes each—10 minutes for presentation and 2 minutes for questions from the audience, unless otherwise specified. Invited papers are allocated 36 minutes—30 minutes for presentation and 6 minutes for questions from the audience.

Guidelines for Session Chairs

1. Please check the Bulletin to determine if any supplementary papers have been assigned to the session you are chairing. Prior to the session, check the Program-Changes Board in the registration area to see if any papers have been withdrawn.

2. Arrive at the meeting room about 15 minutes prior to the start of the session and familiarize yourself with the controls for lights, microphones, A-V equipment and the timer. If you encounter problems, you should immediately alert the Meetings Manager and/or the A-V specialist.

3. Start the session on time. Briefly introduce yourself, announce the first paper and author, and start the timer.

4. Please adhere to the time schedule listed in the Bulletin, so that simultaneous sessions are as closely synchronized as possible. Many attendees move from session to session in order to hear specific papers.

5. The allotted time for contributed papers is 12 minutes; for invited papers—36 minutes. If you are chairing a session that includes both contributed and invited papers please be aware of the different times allocated for each and set the timer as follows:

- Contributed papers—set timer for 8 minutes to give initial warning, then set the final bell to go off 2 minutes later. When this time is up, allow 2 additional minutes for questions relating to the paper, thank the speaker and promptly introduce the next paper and speaker.

- Invited papers—set timer for 25 minutes for initial warning, and the final bell to ring 5 minutes later. Then set the timer for 6 additional minutes for questions from the audience. Explain the timing system to the audience prior to the start of the session, and as often during the session as you think necessary.

6. The By-Laws of the Society request that speakers be asked to stop when their allotted time is up in a courteous but firm manner. Keep in mind that the session must end on time, and that the last speaker has just as much right to an audience as does the first speaker.

7. Should a speaker fail to appear, call the author of the first supplementary paper assigned to the session, if any. If that author is not in attendance, call the author of the following supplementary paper, and so on. If there are no supplementary papers assigned to your session, allow the preceding discussion to continue, or recess the session until it is time for the next scheduled paper. At the end of the session, call again for the regularly scheduled paper, if time allows.

8. When two or more papers are submitted by an author, only one of these will be assigned a scheduled presentation time within that session. It is assumed that the first author listed in the abstract is the person who will present the paper at the meeting. Other papers with the same first author will be assigned as supplementary papers, to be called for if time permits. If you notice that an author who has already presented a paper rises to present another paper, you should request that this paper be presented at the end of the regular program as a supplementary paper, if time allows.

9. If any problems arise that you are unable to handle relative to successfully chairing the session, please inform the A-V tech in the room, or go immediately to the APS registration desk to alert the APS staff. Any time used by the speaker and/or technicians to set up laptops for LCD (Powerpoint) presentations is deducted from the time allocated for the talk.