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Program Acknowledgments

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 scientific program for this April Meeting.

Program Committee

April Program Chair: Charles Glashausser, Rutgers University; *April Program Co-Chair:* Bill Carithers, Lawrence Berkeley National Lab; Bernard Sadoulet, University of California at Berkeley (DAP); Lee Collins, Los Alamos National Lab (DCOMP); Bradley Sherrill, Michigan State University (DNP); Joe Lykken, Fermi National Accelerator Laboratory (DPF); Gerry Dugan, Cornell University (DPB); Melissa Douglas, Los Alamos National Lab (DPP); Colm Whelan, College of Sciences (GFBS); James Faller, University of Colorado (GFC); Paul Bellan, Caltech (GPAP); Jorge Pullin, Louisiana State University (GGR); Daniel Greenberger, City College of New York (GQI); Joel Primak, University of California, Santa Cruz (FPS); Robert Romer, Amherst College (FHP); Gary Steigman, Ohio State University, (FIP); Lindley Winslow, Lawrence Berkeley National Lab (FGSA); Ramon Lopez, Florida Institute of Technology (FED); Phillip Phillips, Loomis Lab of Physics (COM); Zihua Xie, Oklahoma State University (CSWP).

April Sorters

Bill Carithers, Lawrence Berkeley National Lab; Karen Cummings, Southern Connecticut University; Melissa Douglas, Los Alamos National Lab (DPP); Sarah Eno, University of Maryland; Charles Glashausser, Rutgers University; Ben Gibson, Los Alamos National Lab; Ulrich Heinz, Ohio State University; Franz Klein, Catholic University; Joe Lykken, Fermi National Accelerator Laboratory; Dave Mack, Jlab; Peggy McMahan, Lawrence Berkely Laboratory; Pieter Mumm, NIST; Jorge Pullin, Louisiana State University; Robert Romer, Amherst College; Bernard Sadoulet, University of California at Berkeley; Bradley Sherrill, Michigan State University; Michael Thoennessen, Michigan State University

APS APRIL MEETING 2005

AMERICAN PHYSICAL SOCIETY

APRIL 16-19 • TAMPA

GENERAL INFORMATION

Welcome to the 2005 April Meeting of the American Physical Society. We hope you benefit from attending the fine program organized by the 2005 April Meeting Program Committee, and enjoy your stay in Tampa.

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, and posters sessions.

Participating APS Units

Divisions: Astrophysics (DAP), Nuclear Physics (DNP), Particles and Fields (DPF), Physics of Beams (DPB), Plasma Physics (DPP), and Computational Physics (DCOMP)

Forums: Education (FEd), Physics and Society (FPS), International Affairs, History of Physics (FHP), and Graduate Student Affairs (FGSA)

Topical Groups: Few Body Systems (GFBS), Precision Measurement and Fundamental Constants (GFC), Gravitation (GGR), Plasma Astrophysics (GPAP), and Hadronic Physics (GHP)

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.

On-Site Registration

On-site registration will take place in the Florida Salon VI at the Marriott Hotel as follows:

Friday, April 15	• 3:00pm - 7:30pm
Saturday, April 16	• 7:00am - 4:30pm
Sunday, April 17	• 7:00am - 3:30pm
Monday, April 18	• 7:00am - 2:30pm
Tuesday, April 19	• 7:00am - 1:00pm

Badges

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

Florida Salons IV-V

E-mail service will be available for April Meeting attendees to retrieve and send e-mail messages according to the schedule below:

E-mail Service Hours:

Friday, April 15	• 3:00pm - 8:00pm
Saturday, April 16	• 7:00am - 6:00pm
Sunday, April 17	• 7:00am - 6:00pm
Monday, April 18	• 7:00am - 6:00pm
Tuesday, April 19	• 7:00am - 2:00pm

Wireless Access

Wireless internet access is available in the Marriott Hotel in all the meeting rooms, public space, and the lobby. Individuals must pay for access to this service.

Audio Visual Equipment

All rooms will be equipped with an LCD projector, overhead projector, screen, lavalier 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. (We recommend that you also bring your presentation on vugraphs as a back-up to your computer presentation). 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 13.

Note: You are not allowed to bring or use your own projectors at the meeting

Speaker-Ready Room

Room 13

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 in Room 13 with any problems you might have according to the following schedule:

Friday, April 15	• 3:00pm - 7:30pm
Saturday, April 16	• 7:00am - 4:00pm
Sunday, April 17	• 7:00am - 4:00pm
Monday, April 18	• 7:00am - 4:00pm
Tuesday, April 19	• 7:00am - 3:00pm

Press Room

Room 2

Saturday, April 16	• 8:00am - 5:00pm
Sunday, April 17	• 8:00am - 5:00pm
Monday, April 18	• 8:00am - 5:00pm
Tuesday, April 19	• 8:00am - noon

Press Conference Room

Room 3

A schedule of news conferences can be obtained from the Press Room – Room 2.

APS Membership Desk

Grand Ballroom Foyer

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

Grand Ballroom Foyer

Come browse our t-shirts, bumper stickers, World Year of Physics items, and more.

Contact Congress

Ballroom Foyer

Saturday - Monday

Worried about the slashing of NSF, DOE, and NASA funding? Concerned about the dearth of science literacy in our high schoolers? Anxious about where the country's security is heading? **YOU** can have an impact on national science policy! Come write your representatives in Congress to let them know how you feel about science issues of interest to you. The most important letters that a Member of Congress receives are the ones from his or her constituents — **you elect them, and you matter**. The American Physical Society feels that it is incumbent on all of us to interact with the government, to offer technical assistance where we can, and to remind our Members of Congress that scientists have much to offer the country, in areas of basic science, R&D funding, education, and energy policy. We have set up computers in the entrance area where you can send a letter to your Senators and Representatives — you can use our template or write your own letter on issues that matter to you.

APS Job Fair

A beneficial feature of the meeting is the Job Fair. The purpose of the Job Fair is to facilitate communication between employers and job seekers.

Service to Employers

(https://www.aip.org/forms/reg_apsapril05.html)

Job Fair registration includes posting positions, accessing resumés, and interviewing prospective candidates. Space is provided. If you are unable to attend, you may post jobs at the Job Fair. Interested candidates will contact you directly. There is a modest fee for employer services. Discounted rates are given to APS members.

Service to Job Seekers

(https://www.aip.org/forms/candreg_apsapril05.html)

The Job Fair is free of charge to candidates seeking employment. Candidates should register on-site as soon as they arrive. To register, you must show that you have registered for the April Meeting. Job Fair registration includes posting your resumé, accessing current job postings, and interviews with prospective employers. Please bring at least 25 copies of your 1-3 page resumé. If you are unable to attend, we will gladly post your resumé at the Job Fair. Please send a copy of your 1-3 page resumé to the address below with a cover letter stating your citizenship and willingness to relocate and reference to the APS APRIL JOB FAIR.

For employer registration or for additional information, please contact Alix Brice at:

American Institute of Physics

Career Services Division

One Physics Ellipse

College Park, MD 20740

Tel: 301-209-3187; Fax: 301-209-0841

E-mail: abrice@aip.org

Website: www.aip.org/careers

PRE-MEETINGS PROGRAMS

High School Physics Teachers' Day

Friday, April 15

8:30am - 3:45pm

Marriott Waterside Hotel,

Florida Ballroom IV

In conjunction with the 2005 April Meeting, the APS Department of Education & Outreach is sponsoring a High School Physics Teachers' Day for teachers in the Tampa region. The day includes:

- Hands-on workshops presenting innovative, classroom-ready activities
- Research talks on cutting-edge physics
- A welcoming breakfast, and a chance to network with fellow teachers
- Lunch with a physicist

If you would like to join the teachers for lunch (11:45am - 12:45pm) contact Ed Lee at lee@asp.org.

Professional Skills Development Workshop for Women Physicists

Friday, April 15

Workshop: 8:30am - 5:00pm

Reception: 5:00pm - 6:30pm

Florida Salon I

One-day workshop will offer training on persuasive negotiation and communication skills for tenured women physicists. 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. Limited to 30 participants. Pre-registration only — no on-site registration.

Career Workshop

Friday, April 15

7:30pm-10:00pm

Florida Salons I-II

The APS will offer a career workshop free of charge to all APS attendees. The purpose of the workshop is to provide information on career choices in physics. Topics such as: How to Prepare an Effective Resume; Interviewing Skills; Networking; Job Search Skills; Clarifying Expectations; Diverse Options; and more, will be covered at the workshop. Each workshop participant will receive a package of career development materials. No pre-signup for the workshop is required.

APS MEETINGS AND EVENTS

(Listed in chronological order)

Welcome Reception

Saturday, April 16

5:30pm - 7:00pm

Lobby Patio

All April Meeting attendees are invited to attend.

Einstein's Legacy: What We Know and What We Don't Know

Session F1

Saturday, April 16

7:30pm - 9:30pm

Grand Salon E

Chair:

Robert Wald, University of Chicago

Speakers:

Rocky Colb, Fermilab

The Origin and Destiny of our Universe

Donald Maroff, University of California

Quantum Gravity: Life on the Frontier

Michael Kramer, Jodrell Bank Observatory

The Double Pulsar: Unique Tests of Einstein's Predictions

CSWP/DPF Networking Luncheon

Sunday, April 17, 2005

12:00 pm - 1:30 pm

Marriott Hotel, Salon 1

Enjoy a buffet luncheon and an opportunity for networking with colleagues. Helen Quinn, past president of APS will speak. Cost: \$20 (\$5 for students). Pre-registration strongly advised as there will be very limited space for walk-ins. All are welcome.

APS Journal Editors Panel

Discussion

Sunday, April 17

2:30pm - 3:30pm

Room 8

Meet the Editors of Physical Review and Physical Review Letters

Sunday, April 17

3:30pm-5:00pm

Grand Salon Foyer

The editors of *Physical Review* and *Physical Review Letters* cordially invite you to join them for conversation and refreshments at the Marriott. Your questions, suggestions, compliments, and complaints about the journals are welcome. We hope you will be able to join us.

Awards Session N3

Sunday, April 17

5:15pm-6:45pm

Grand Salon A/B

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. See page 10 for a list of prize and award winners.

This session will also include two special talks. Robert Austin will present the Lilienfeld Prize talk on "Original Sin, Solitons, and Proteins," and Helen Quinn, APS Past President, will give the retiring presidential address entitled "Looking Back and Looking Ahead — Some Thoughts on APS and its Future."

Special Symposium

Neutrinos, Particles, and Underground Labs: Big Plans

Session N1

Sunday, April 17

8:00pm - 10:00pm

Grand Salon E

Chair:

Hamish Robertson

University of Washington

Speakers:**Stuart Freedman***LBNL***Conclusions of APS Neutrino Study****Sally Dawson***Brookhaven National Laboratory***Elementary Particle Physics in the 21st-Century****Bernard Sadoulet***University of California, Berkeley***The Deep Underground Science and Engineering Laboratory (DUSEL): The Science and Infrastructure Requirement Study****Tommy Phelps***ORNL***An Example of Multidisciplinary Science at DUSEL: Geo-Microbiology****Public Lecture:****Einstein's Biggest Blunder:****A Cosmic Mystery Story****Monday, April 18**

7:30pm - 9:30pm

Marriott Hotel, Grand Salon F

Speaker:**Lawrence Krauss, Case Western Reserve****Plenary Talks****Saturday, April 16****Session AO**

8:30am - 10:30am

Grand Salon E/F

Leonard Susskind*Stanford University***The Black Hole Information Paradox****Carl Wieman**

Distinguished Professor of Physics

*University of Colorado-Boulder***The Collision Between Research and Teaching: Destructive Crash or Beneficial Fusion?****Patricia Burchat***Stanford University***Mysteries of Heavy Quarks****Monday, April 18****Session QO**

8:30am - 10:30am

Grand Salon E

Felix Aharonian*Max Planck Institut fuer Kernphysik***Probing Supernova Remnants, Black Holes, and Dark Matter with TeV Gamma Rays****Evelyn Hu***CNSI**University of California-Santa Barbara*

Santa Barbara, CA 93106

Physics of Nanoscale Structures: New Insights and Possibilities**Krishna S. Kumar***University of Massachusetts***Probing Subatomic Matter with Polarized Electrons: MeV to TeV Physics****Tuesday, April 19****Session WO**

8:30am - 10:30am

Grand Salon E

Hendrik Schatz*National Superconducting Laboratory**Michigan State University***Rare Isotopes and Thermonuclear Explosions: Journey through the Crust of an Accreting Neutron Star****Chris Quigg***Fermilab***The Double Simplex: Envisioning Particles and Interactions****Wendy Freedman***Carnegie Observatories***The Standard Model of Cosmology: Successes and Challenges**

APS EVENTS FOR SPECIAL GROUPS

(Listed in chronological order)

Student Reception

Friday, April 15

7:00pm - 9:00pm

Grand Salon B

All students are cordially invited to an informal reception hosted by the APS and the Forum on Graduate Student Affairs. This is your chance to meet your fellow students, enjoy a dinner buffet, and show off your physics trivia knowledge in our quiz. (There will be prizes of course!)

Students Lunch with the Experts

Monday, April 18

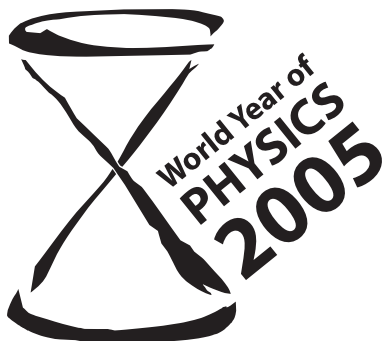
12:30pm - 2:00pm

Tampa Convention Center, Room 18-19

Students can sign up on-site to enjoy 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, April 16 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/expert.

List of Topics/Experts

- *Probing the Microworld with the Highest Energy Accelerators*
Ernie Malamud
Fermilab
- *Teaching and Staying Professionally Active at a Liberal Arts College*
Wolfgang Christian
Davidson College
- *Teaching and Staying Professionally Active at a Liberal Arts College*
Anne Cox
Eckerd College
- *Dark Energy; Sean Carroll*
University of Chicago
- *Chemical Evolution of the Universe: Nuclear Astrophysics*
Hendrik Schatz
Michigan State University
- *Study of the Quark-Gluon Plasma at RHIC*
Gary Westfall
Michigan State University
- *The Properties of Neutrinos*
Kevin Lesko
Lawrence Berkeley Laboratory
- *Life as a Science Journalist*
Maragaret Wertheim
Michigan Technical University
- *Physics and Medical Imaging*
Snezana Bogdanovich
Hologic Inc.
- *Dark Matter and Dark Energy*
Bernard Sadoulet
University of California, Berkeley
- *High Energy Density Plasma Physics*
Cris Barnes
Los Alamos National Laboratory
- *Plasma Physics with the Levitated Dipole Experiment*
Darren Garnier
Massachusetts Institute of Technology



BUSINESS MEETINGS

(Listed in chronological order)

FEd Business Meeting/Open House

Sunday, April 17
6:45pm - 8:00pm
Room 10

Come and join your fellow members of the Forum on Education for refreshments. (One free drink ticket.)

GFB Business Meeting

Sunday, April 17
4:18pm - 5:15pm
Grand Salon G/H

FPS Business Meeting

Monday, April 18
3:30pm-5:18pm
Grand Salon I/J

FHP Business Meeting

Monday, April 18
5:10pm - 6:00pm
Room 7

GPMFC Business Meeting

Monday, April 18
5:18pm - 6:18pm
Room 5

DNP Business Meeting

Monday, April 18
5:30pm - 6:30pm
Grand Salon E

DAP Business Meeting

Monday, April 18
5:30pm - 7:30pm
Grand Salon A/B

GGR Business Meeting

Monday, April 18
5:30pm - 6:30pm
Room 6

SATELLITE MEETINGS

RHIC-AGS Users Group

Saturday, April 16
7:00pm - 8:30pm
Florida Salon I

Jefferson Lab Users Group

Saturday, April 16
5:00m - 6:30pm
Room 10

IOP High Energy and Nuclear Physics Journals Hospitality Suite

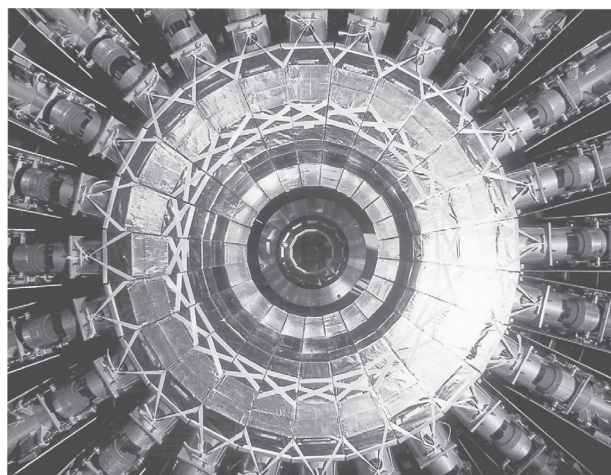
Sunday, April 17/Monday, April 18
9:00am - 4:30pm

All are invited to stop by for complimentary refreshments in a friendly, relaxing atmosphere. Check the hotel lobby for signs with the room number on them and/or your hotel room television screens.

Meeting of the Instrument Development Team for the Fundamental Neutron Physics Beam

Sunday, April 17
8:00pm - 9:30pm
Florida Salon II

*The Medea Detector at National Laboratories of the South;
Catania, Italy; courtesy of INFN-South National Laboratories.*



PRIZE AND AWARD RECIPIENTS

2004 Apker Award (Ph.D.)

Jonathan Heckman
Princeton University

Session K1

"Large R-charged Sectors of the AdS/CFT Correspondence."



Hans A. Bethe Prize

Stanford Woosley
University of California, Santa Cruz
Session U2

"For his significant and wide ranging contributions in the areas of stellar evolution, element synthesis, the theory of core collapse and type Ia supernovae, and the interpretation of gamma-ray bursts—most notably, the collapsar model of gamma-ray bursts."



Tom W. Bonner Prize

Roy Holt
Argonne National Laboratory
Session U2

"In recognition of his pioneering role in experimental studies of the structure of the deuteron and especially for his innovative use of polarization techniques in these experiments."



Einstein Prize

Bryce DeWitt
University of Texas
Session K4

(Talk by Luis Alvarez-Gaume)

"For a broad range of original contributions to gravitational physics, especially in quantum gravity, gauge field theories, radiation reaction in curved spacetime, and numerical relativity; and for inspiring a generation of students."



Joseph A. Burton Forum Award

Lawrence Krauss
Case Western Reserve University
Session T6

"For major contributions in defending science in the schools through his efforts in combating the opponents of teaching evolution, and for continuing to enhance the public understanding of contemporary physics."



Lilienfeld Prize

Robert Austin
Princeton University
Session N3

"For his pioneering and creative work in applying advanced techniques in experimental physics to significant problems in biological physics, and for his skill in communicating the excitement of his research to a wide range of audiences."



Dissertation in Nuclear Physics Award

Andriy Kurylov
Session U2

"For his theoretical work on electroweak radiative corrections to precision low-energy processes, including calculations of neutrino-deuteron scattering needed to interpret solar neutrino data and other calculations to constrain limits for physics beyond the standard model."

Abraham Pais Prize for History of Physics

Martin Klein
Yale University
Session T6

"For his pioneering studies in the history of 19th- and 20th-century physics, which embody the highest standards of scholarship and literary expression and have profoundly influenced generations of historians of physics."



W.K.H. Panofsky Award

Pier Oddone
Lawrence Berkeley National Laboratories
Session T1

"For his insightful proposal to use an asymmetric B-Factory to carry out precision measurements of CP violation in B-meson decays, and for his energetic leadership of the first conceptual design studies that demonstrated the feasibility of this approach."



PRIZE AND AWARD RECIPIENTS continued

Francis Pipkin Prize

Ronald Walsworth

*Harvard-Smithsonian Center for
Astrophysics*

Session K4

"For broad investigation in precision measurements involving masers; in particular, for using hydrogen and noble-gas masers in achieving record sensitivities to violations of Lorentz and CPT symmetry in neutrons and protons, and for innovative applications of masers to imaging."



J.J. Sakurai Prize

Susumu Okubo

University of Rochester

Session T1

"For ground-breaking investigations into the pattern of hadronic masses and decay rates, which provided essential clues into the development of the quark model, and for demonstrations that CP violation permits partial decay rate asymmetries."



Leo Szilard Lectureship Award

**APS Study Group on Boost-Phase Intercept
Systems for National Missile Defense**

Session T6

"In recognition of the work of the Study Group in producing a report that adds physics insight to the public debate."

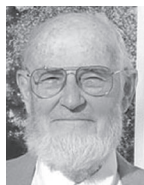
Robert R. Wilson Prize

Keith R. Symon

University of Wisconsin

Session T1

"For fundamental contributions to accelerator science including the FFAG concept and the invention of the RF phase manipulation technique that was essential to the success of the ISR and all subsequent hadron colliders."



Andreas Acrivos

Dissertation Award

Jacqueline Ashmore

University of Cambridge

"For elegant theoretical and numerical analyses of coating and free-surface flows."



2004 Fluid Dynamics Prize

George M. (Bud) Homsy

"For many important contributions in multiphase flows, interfacial phenomena, polymeric flows, and convection including the stability of fluidized beds, viscous fingering in porous media, and thin film behavior."



2004 James Clerk Maxwell Prize

Valery Godyak

Sylvania

Noah Hershkowitz

University of Wisconsin

"For fundamental contributions to the physics of low temperature plasmas, including radio frequency wave heating, sheath physics, potential profiles, diagnostic probes, and the industrial applications of plasmas."



PRIZE AND AWARD RECIPIENTS continued

2004 Excellence in Plasma Physics Research

William Heidbrink
*University of California,
Irvine*

Chio Z. Cheng
Princeton University

Liu Cheng
*University of California,
Irvine*

Edward Strait
General Atomics

King-Lap Wong
Princeton University

*"For the theoretical discovery and experimental
identification of toroidicity induced alfvén
eigenmodes."*



Marshall N. Rosenbluth Outstanding Doctoral Thesis Award

Ki-Yong Kim

IBM Almaden Research Center

*"For his landmark simulations of fracture, 2-d melting
and properties of membranes."*

Shock Compression Science Award

Vladimir E. Fortov

*Institute for High Energy Densities of
Russian Academy of Sciences*

*"For pioneering research in high-energy
density physics, strongly-coupled plasmas, hot-
condensed matter, shock-compression science and their
applications."*



Prize to a Faculty Member for Research in an Undergraduate Institution

Murtadha A. Khakoo

California State University, Fullerton

*"For his challenging and sophisticated
experiments in electron-atom collisions that have
provided significant tests of atomic theory and for
his energetic, sustained mentoring of students in his
research."*



APS APRIL MEETING 2005

AMERICAN PHYSICAL SOCIETY

APRIL 16-19 • TAMPA

PROGRAM FORMAT

Program Time Blocks

Saturday:	A-G
Sunday:	H-P
Monday:	Q-V
Tuesday:	W-Z

There are three time blocks (8:30am, 10:45am, and 2:30pm) for each day of the meeting, except for Tuesday, when there are only two sessions. The time blocks are designated in alphabetical order beginning with time block "A" on Saturday at 8:30am, and ending with time block "W" designating the 11:00am session on Tuesday. See the Program Schedule for details.

Session Codes

Each session within a time block is numbered sequentially, as well as the papers within a session. For example, session code "B4.3" = the third paper within the fourth session of time block B (on Saturday at 10:45am).

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 and 5:00pm Saturday, Sunday, and Monday. Consult the Poster Session Schedule for exact times and a breakdown of poster topics.

Poster Session Schedule

Poster Session I (D1)

Saturday, April 16: 2:00pm-5:00pm

- 1-21: Astrophysics
- 22: Few Body Systems
- 23-30: Gravitation

Poster Session II (L1)

Sunday, April 15: 2:00pm-5:00pm

- 1-5: New Precision Measurement Methods
- 6-10: Nuclear Physics
- 11-15: Particles and Fields
- 16-20: Tests of Physics Laws
- 21-23: Accelerators and Storage Rings
- 24-25: Beam Physics
- 26-37: Plasma Physics

Poster Session III (S1)

Monday, April 18: 12:30pm-2:00pm

- 1-4: Undergraduate Education
- 5-12: Undergraduate Research
- 13-16: Computational Physics
- 17-49: 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 (audio-visual) 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.

PROGRAM FORMAT continued

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 (Governor's Square 9) 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 vugraph presentation in case there are set-up difficulties with the LCD equipment

NOTE: APS is not responsible for the security of personal laptop computers. 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.

NOTE: Occasionally (and unfortunately) the chair for a session may not appear, in which case we ask that the first presenter serve as chair of the session.

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 *Corrigenda* distributed with the *Bulletin*, as well as 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.

NOTE: 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.

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.

PROGRAM FORMAT continued

- 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.

Please Note:

The American Physical Society has made every effort to provide accurate and complete information in this *Bulletin*. However, changes or corrections may occasionally be necessary and may be made without notice after the date of publication. To ensure that you receive the most up-to-date information, please check the meeting *Corrigenda* distributed with this *Bulletin*.

APS APRIL MEETING 2005
AMERICAN PHYSICAL SOCIETY
APRIL 16-19 • TAMPA

APS UNIT ACRONYMS

Divisions

DAMOP	Division of Atomic, Molecular and Optical Physics
DAP	Division of Astrophysics
DBP	Division of Biological Physics
DCP	Division of Chemical Physics
DCMP	Division of Condensed Matter Physics
DCOMP	Division of Computational Physics
DFD	Division of Fluid Dynamics
DLS	Division of Laser Science
DMP	Division of Materials Physics
DNP	Division of Nuclear Physics
DPB	Division of the Physics of Beams
DPF	Division of Particles and Fields
DPP	Division of Plasma Physics
DPOLY	Division of Polymer Physics



Topical Groups

GFBS	Few Body Systems Topical Group
GGR	Gravitation Topical Group
GHP	Topical Group on Hadronic Physics
GIMS	Instrumentation and Measurement Science Topical Group
GMAG	Magnetism and Its Applications Topical Group
GPAP	Topical Group on Plasma Astrophysics
GSNP	Statistical and Non-linear Topical Group
GFC	Precision Measurement and Fundamental Constants Topical Group
GSCCM	Shock Compression of Condensed Matter

Forums

FEd	Forum on Education in Physics
FGSA	Forum on Graduate Student Affairs
FHP	Forum on History of Physics
FIAP	Forum on Industrial and Applied Physics
FIP	Forum on International Physics
FPS	Forum on Physics and Society

Committees

COM	Committee on Minorities
CSWP	Committee on the Status of Women in Physics