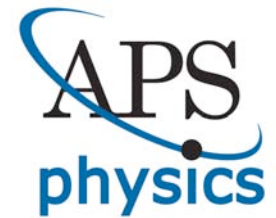


Special Publications Dept.



What we do...

The Special Publications Department provides in-house graphic design, promotional and marketing services for APS. Our creative services are also used by the APS units across the country.

Other major design responsibilities of the department includes:

- Unit promotional posters, flyers and newsletters
- Promotional packets for the March and April meetings
- *APS News* and *Capitol Hill Quarterly* newspapers
- APS annual calendar and APS Annual Report
- Icons for APS-related web sites (aps.org; physicscentral.com; etc.)
- Handling the unit officers (paper) elections
- Overseeing the mailing services of the designed projects
- The staff has had opportunities to draw illustrations for APS projects

Special Publications Department



Kerry G. Johnson

Art Director and Special Publications Manager

kjohnson@aps.org (301) 209-3277

Leanne Poteet

Graphic Designer

poteet@aps.org (301) 209-3284

Krystal Ferguson

Graphic Designer

ferguson@aps.org (301) 209-3232

Nancy Bennett-Karasik

Publications Designer

karasik@aps.org (301) 209-3274

Mile-High City Will Host 2007 March Meeting

The 2007 APS March Meeting will be held March 5-9 in Denver, Colorado. It is the largest annual gathering of professional physicists in the country.

The scientific program will feature more than 90 invited sessions and 550 contributed sessions, at which approximately 7000 papers will be presented, covering the latest research in areas represented by the APS divisions of condensed matter physics, materials physics, polymer physics, chemical physics, biological physics, fluid dynamics, laser science, computational physics, and atomic, molecular and optical physics.

Also taking part will be the APS topical groups on instrument and measurement science, magnetism

and its applications, shock compression of condensed matter, statistical and nonlinear physics, and quantum information, as well as the forums on international physics, education, and graduate student affairs.

Special scheduled events include the annual prize and award presentation, a one-day workshop on professional skills development for women physicists, a panel discussion with APS journal editors, a students' lunch with the experts, a physics sing along, and a high school physics teachers' day on Tuesday, March 6.

In addition to the regular technical program, on Sunday, March 4, there will be seven half-day tutorials

on magnetism at the nanoscale, teaching statistical and thermal physics with computer-based tutorials, quantum error correction, spintronics, quantum turbulence, graphene, and attosecond science.

The 4th APS Workshop on Opportunities in Biological Physics, organized by the Division of Biological Physics, will be held on Sunday, March 4.

On Saturday, March 3 and Sunday, March 4, the Division of Polymer Physics will host a special short course on Advances in the Use of Atomic Force Microscopy for Studies of the Physics of Macromolecular Materials.

Apker Award Honors Three Undergrads



The Lefroy Apker Award is given for outstanding research accomplishments in physics by an undergraduate. Two categories are recognized: one for an undergraduate at an institution that grants the PhD. Normally, there is one award each year in each category. This year, however, an unusually large number of outstanding nominations were received. The selection committee responded by recommending three recipients to the APS Executive Board: two in the non-PhD category, and one in the PhD category.

On the left is Hugh Churchill of Oberlin College, whose senior thesis, done under the supervision of Stephen Fitzgerald, was on "Low-temperature infrared spectroscopy of H_2 in solid C_{60} ." He is now a graduate student at Harvard. In the middle is Stephanie Moyerman of MIT, who, working with James K. Thompson and Vladimir Vukobratovic, wrote her senior thesis on "Applications of Correlated Proton Pair: Sub-Shot Noise Interferometry and Entanglement." She is spending this year working in a quantum optics laboratory in her native Singapore, and intends to begin graduate work in physics in the US next fall. At right is Stephanie Moyerman of Harvey Mudd College, who wrote her thesis on "Magnetic Structure Variations in Spin Valves with Pico-Scale Antiferromagnetic Layers" under the supervision of James Eckert and Patricia Sparks. Currently studying abroad on a Watson Fellowship, she will begin graduate school at UC Berkeley in the fall of 2007.

New Faculty Exchange Ideas



Photo credit: Ted Hodapp

New Management Tackles Difficult Problems at Los Alamos

By Ernie Treloar

Several months after new management took over at Los Alamos National Laboratory, the lab continues to struggle with security and budget problems and low employee morale.

Until last year, the lab had been managed by the University of California. Following a series of security and safety problems that led to a total shutdown of the lab, the Department of Energy put the management contract out to bid. Last

December the DOE selected Los Alamos National Security (LANS), a collaboration of the University of California, Bechtel National, BWX Technologies, and Washington Group International, beat out the University of Texas/Lockheed Martin collaboration for the contract. The new management took over in June.

The new director, nuclear physicist Michael Anastasio, came to LANL from Lawrence Livermore

National Laboratory, where he had been the director since 2002.

In a recent security incident, classified data were found in the home of a former subcontractor during a drug raid by local police. In addition to drug paraphernalia, police found computer memory sticks containing classified documents from the lab, as well as hard copies of classified documents. The documents had apparently been taken from the lab by a woman who had

LOS ALAMOS continued on page 5

Council Passes Statements on Linear Collider, Careers in Physics

The APS Council approved two new statements at its November meeting, one in support of the proposed International Linear Collider, and the other an updated statement on careers in physics.

The statement on the collider cited the findings and recommendations in the National Academy of Sciences report *Revealing the Hidden Nature of Space and Time: Charting the Course for Elementary Particle Physics* (commonly known as EPP2010), released last spring (see APS News, June 2006, and APS News Back Page, July 2006 (both

available online)). The statement says, in part, that "with the framework of a balanced national program in the physical sciences that recognizes the need for advancing the frontiers in both large and small science, the American Physical Society strongly endorses the chief recommendation of EPP2010."

"The United States should remain globally competitive in elementary particle physics by playing a leading role in the worldwide effort to aggressively study Terrestrial physics,"

The statement continues: "To

achieve that end in the context of successful international collaborations on large scientific facilities, the American Physical Society, consistent with the recommendations in EPP2010:

"Urges the Administration, acting through the Department of Energy and the National Science Foundation and Congress, acting through the authorization and appropriations committees, to provide the American share of the 'risk capital' for research and development (recommended in the National Academy report) lead-

See COUNCIL on page 3

APS Kicks Off Campaign to Support Education and Outreach Initiatives

The mid-term election campaign may have been close to its end, but on November 3 another important campaign was just beginning: the APS 21st Century Campaign celebrated its kickoff at a special event on the evening before the November 4 Executive Board meeting. APS President John Hopfield led the program, which included the announcement of a \$3.5 million goal and approximately \$1.8 million having been raised to date. The campaign seeks corporate, foundation and individual gifts. APS programs benefiting from campaign funding include:

- High School Teachers' Days—special events at APS meetings that offer hands-on workshops and research talks, with members joining the teachers for lunch.
- Minority Scholarship Program—awards scholarships and provides mentors to undergraduate physics majors.
- Student Travel Grants—provides physics students with an opportunity to attend APS meetings.
- Women and Minority Speakers Program—women and minority speakers volunteer to give talks at high schools, colleges and universities.
- Career and Professional Development Liaison Programs—with physics departments

CAMPAIGN continued on page 5



Photo credit: Duffner Loger

Speakers at the Campaign kickoff celebration include the success to date. From left to right are: Brian Schwartz of the City University of New York; APS Executive Officer Judy Franz; APS President John Hopfield; APS Director of Education and Diversity Ted Hodapp; and Noah Finkelstein of the University of Colorado. Schwartz is a former APS Director of Education, and Finkelstein is one of the leaders of the PhysTEC program at UC Boulder (see APS News, March 2006, and APS News Back Page, January 2006).

Energy Efficiency Crucial to Achieving Energy Security and Reducing Global Warming, States Leading Physicists Report

American Physical Society Report Says Recovery of Lost Energy From Inefficiencies Is America's Hidden Energy Reserve for 21st Century

Tapping wasted energy from inefficient automobiles, homes and businesses is equivalent to discovering a hidden energy reserve that will help the United States improve its energy security and reduce global warming, an American Physical Society (APS) study panel concluded in a major report.

The report, *Energy Future: Think Efficiency*, states that the key to unlocking the efficiency potential is developing policies that will put technology into the marketplace and developing new technologies through applied and basic research in the public and private sectors.

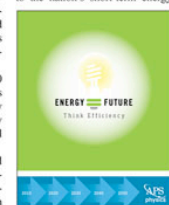
The study panel concluded that increased energy efficiency, particularly in the transportation and building sectors, will help eliminate U.S. reliance on foreign oil and reduce greenhouse gas emissions that contribute to global warming.

Most recommendations addressing high fuel costs focus on either increasing the supply of oil or finding a substitute fuel, but the APS report offers a practical roadmap with short-term and longer-term solutions for reducing demand through cost-effective efficiencies that find public and political acceptance.

The report provides a path to 50 miles per gallon mileage for cars and other light-duty vehicles by 2030 and the elimination of energy from fossil fuels in new residential buildings by 2020.

It also states that the federal government should broaden its research, development and demonstration programs, particularly in the areas of batteries for conventional hybrid vehicles, plug-in hybrids and battery electric vehicles. The report credits automakers for

devoting resources to the development of hydrogen fuel cell and plug-in hybrid vehicles, but concludes that they are not a solution to the nation's short-term energy areas.



needs because they require significant scientific and engineering breakthroughs in several critical

The study also calls on Congress and the White House to increase spending on research and development of next-generation building technologies, training scientists who work on building technologies and supporting associated national laboratory, university and private-sector research programs. Additionally, it recommends that lawmakers develop policies that address a wide-array of market barriers that discourage consumers from adopting investment in energy-efficient technologies, especially in the highly fragmented building sector.

"The American people need leadership from the Congress and the next president on this issue," said Nobel Laureate Burton Richter, chair of the study committee and director emeritus of the Stan-

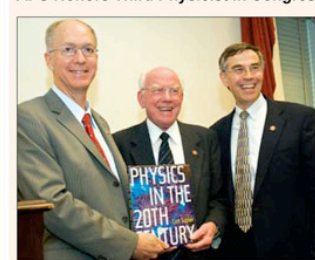
ford Linear Accelerator Center. "Both Sens. McCain and Obama have outlined plans for improving energy efficiency and the important role new technologies will play in our energy future. The next leader of the United States will have an opportunity to be the first in history to lay the necessary groundwork to reduce energy use among Americans."

Among its other key findings and recommendations based on the 12-month study are:

- **Transportation**
"The federal government should adopt new standards for light-duty vehicles that average 50 miles per gallon or more by 2030."
"Vehicle weight can be significantly reduced through

REPORT continued on page 3

APS Honors Third Physicist in Congress



By Ken Cole/APS

APS held a reception July 16 on Capitol Hill, honoring the newest physicist to enter Congress, Representative Bill Foster (D-IL 14th). Representative Foster, a physicist formerly with Fermilab and an APS Fellow, won a special election in March to fill the seat vacated by former Speaker Dennis Hastert.

Foster (left) joins two other congressional physicists, Representative Vernon J. Ehlers (R-MI 3rd) (middle) and Representative Rush Holt (D-NJ 12th) (right), in the House of Representatives. The reception was attended by over 100 scientists and invited guests.

Basic Research Funding in the FY '09 Continuing Resolution Critical to Solving Energy Crisis

Americans are digging deeper into their pockets to fill up at the pump, fretting about paying for home heating oil and worrying about the devastating effects of global warming. With a Continuing Resolution Bill for Fiscal Year 2009 looming this fall, Congress must not allow energy research funding to languish at Fiscal Year 2008 levels. To do so will set our nation further back on a course toward energy independence.

Last year, the U.S. Department of Energy's (DOE) Basic Energy Sciences (BES) program responded to the U.S. energy crisis that has gripped the nation with proposals focused on solar, hydrogen and nuclear

international Thermonuclear Experimental Reactor (ITER), was also cut from the budget, damaging America's reputation as a reliable partner for the international fusion energy project.

"I was very excited about doing something to contribute to research that had the possibility of helping with the energy problem, and now I won't work on that problem," said Jim Freericks, a physics professor at Georgetown University, who submitted a proposal to BES to research converting solar energy into electricity using thermoelectric materials.

Sustainable solutions to our nation's energy woes are within our reach, but policymakers must be willing to make the

FUNDING continued on page 3

On the Back Page



Congressman Nick Lampson Discusses Energy Efficiency.

PhysTEC Prepares Future Physics Teachers

Eight years ago, three national physics organizations jointly launched the Physics Teacher Education Coalition (PhysTEC) to help U.S. universities prepare more highly qualified physics teachers and alleviate the nation's critical physics teacher shortages.

PhysTEC is a partnership among the American Physical Society (APS), the American Association of Physics Teachers (AAPT), and the American Institute of Physics (AIP). Institutions participating in PhysTEC improve their teacher preparation programs by recruiting future teachers, hiring full-time master teachers from local schools to work with pre-service teachers, developing high-quality courses and early teaching experiences, and mentoring program graduates. The National Science Foundation (NSF) and APS fund the project.

Faculty members at PhysTEC institutions said the project has been instrumental in helping them jump-start their teacher preparation programs. "PhysTEC has helped us place 20 teachers in Arkansas classrooms over the past six years," said Gay Stewart, a physics professor at the University of Arkansas. "Before the project began, we had graduated one physics teachers in a decade, and now we're graduating five or more teachers every year."

PhysTEC began with six universities and has expanded to a total of 14 sites, which are chosen through a peer-reviewed solicitation that considers the applicant's potential to increase the number of teachers who graduate and develop programs that serve as national models. Evidence of collaboration between physics and education

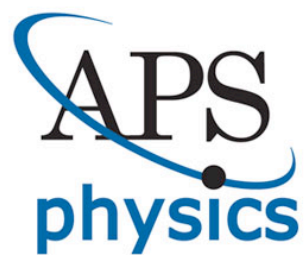
faculty is another important criterion. In 2006, the project received 45 proposals for four available slots.

"The physics community is clearly showing broad interest in teacher preparation," said Ted Hodapp, director of education and diversity for APS. "If there were funding for 10 times as many institutions to replicate PhysTEC's efforts, major progress could be made toward putting highly qualified teachers in every one of our country's physics classrooms. With today's highly competitive technical workplace, the need for physics teachers has never been greater."

PhysTEC institutions now graduate about three times as many certified physics teachers per year as they did before the project's inception, which represents an average increase of about 30 percent per year. By comparison, data from 10 state certification offices show only about a 3 percent increase per year in physics teacher certifications, despite federal No Child Left Behind legislation requiring schools to hire certified teachers.

PHYSYTEC continued on page 3

Capitol Hill Quarterly is a publication of the American Physical Society, www.aps.org. APS is a non-partisan, professional society of physicists with more than 46,000 members.



APS Annual Reports



Unit Newsletters

FALL 2006



DFD News

A Division of the American Physical Society

RECIPIENTS OF PRIZES AND AWARDS

Each year the APS Division of Fluid Dynamics recognizes outstanding individuals with several awards: the Fluid Dynamics Prize, The Francois Frenkiel Award, and the Andreas Acrivos Dissertation Award.

2006 FLUID DYNAMICS PRIZE

Tom Lundgren of the University of Minnesota is the recipient of the 2006 Fluid Dynamics Prize, which is awarded for outstanding contributions to fundamental fluid dynamics research. The citation reads: "For his insightful and outstanding theoretical contributions to numerous areas of fluid mechanics, most notably in the fields of turbulence and vortex dynamics." Professor Lundgren will present the 2006 Otto Laporte Lecture at the 2006 Division of Fluid Dynamics Meeting in Tampa, Florida.

The Fluid Dynamics Prize was established in 1979 with support from the Office of Naval Research. In 2004 the Executive Committee of the Division voted to combine the Otto Laporte Award with the Fluid Dynamics Prize so that the Division of Fluid Dynamics would have a single major prize -- the Fluid Dynamics Prize. The prize was endowed by the Division of Fluid Dynamics, friends of Otto Laporte and the American Institute of Physics journal: *Physics of Fluids*.

The lecture given by the Fluid Dynamics Prize recipient is called the Otto Laporte Lecture. Prior to 2004, the Otto Laporte lecture and the Fluid Dynamics Prize were distinct awards. A list of the Otto Laporte Award recipients and lecturers, and a list of Fluid Dynamics Prize recipients are given later in this Newsletter.

2006 FRANCOIS FRENKIEL AWARD

J. Skotheim and L. Mahadevan are the recipients of the 2006 Francois Frenkiel Award, which recognizes significant contributions to fluid mechanics that have been published in *Physics of Fluids* during the preceding year by young investigators. The award paper is titled: "Soft lubrication: the elastohydrodynamics of conforming and non-conforming contacts." [*Phys Fluids* 17, 092101 (2005)]. The citation reads: For a thorough study of lubrication between soft surfaces, asking the question of optimal geometry and materials to maximize lift.

2006 ANDREAS ACRIVOS DISSERTATION AWARD

Eric Lauga, of MIT is the recipient of the 2006 Andreas Acrivos Dissertation Award for his thesis entitled "Slip, Swim, Mix, Pack: Fluid Mechanics at the Micron Scale." The award recognizes an exceptional young scientist for original, outstanding doctoral thesis work in fluid dynamics done in the United States. Dr. Lauga completed his doctoral thesis work at Harvard University under the direction of Michael Brenner and Howard Stone.

2006 APS/DFD FELLOWS

The Fellowship Committee of DFD is pleased to announce the election of the following APS Fellows:

Sivaramkrishnan Balachandrar, *UIUC*
Roger Bonnecaze, *UT, Austin*
Garry Brown, *Princeton*
Tom Corke, *Notre Dame*
Ed Law, *Princeton*
Jacques Magnaudet, *IMF Toulouse, France*
Bernard Matkowsky, *Northwestern*
Godfrey Mungal, *Stanford*

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- 7 Some Upcoming Meetings
- 8 Guidelines for Minisymposia at the APS/DFD Annual Meetings
- 8 APS/DFD 2006 Leadership and Contact Information

Vol. 27, No. 1

Spring 2008

CSWP Gazette

The Newsletter of the Committee on the Status of Women in Physics of the American Physical Society

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GUEST EDITORIAL: *When Life Intervenes, One University Steps Up to Help*

By Bernice Durand, University of Wisconsin-Madison



Bernice Durand

She's making good progress toward tenure. Wham! Her young child is diagnosed with cancer. The child's oncologist says the prognosis is good with immediate and repeated chemotherapy. Her big grant renewal proposal is due in two months.

He's enjoying mid-career national prominence. Wham! He has a heart attack. His cardiologist says he needs bypass surgery — soon! His big grant renewal proposal is due in two months. A lot of people's livelihoods and careers depend on those grants.

Health and family crises are often career crises, and they can be ruinous. Overnight your career can be in serious jeopardy. Although men and women experience these kinds of events, for women they may tend to occur earlier in the career (e.g., prior to the tenure

decision) when it is more difficult to recover from a setback. At the University of Wisconsin—Madison (UW-Madison), we are privileged to have Vilas Life Cycle Professorships, as a safety net against such crises (1). These grants, limited to \$30,000 (not to be used for the salary of the recipient), are available to UW-Madison tenure-track and tenured faculty and permanent principle investigators (PI's), regardless of discipline or gender, who "are at critical junctures in their professional careers and whose research productivity has been directly affected by personal life events (e.g., illness of a dependent, parent, spouse/partner, or oneself; complications from childbirth; combination of major life events)" (1).

Where did the Life Cycle grants come from? From 2002 to 2006, we had one of the first NSF five-year ADVANCE Institutional Transformation grants (2). The grant was named WISELI (3), for Women in Science and Engineering Leadership Institute. The two PI's and Co-Directors were Molly Carnes (4) and Jo

continued on page 10

Balancing Career and Family: Suggestions

By Andrea Liu, University of Pennsylvania

At the 2007 APS March Meeting, CSWP sponsored a panel discussion on the topic, "Women in academic science: balancing career and family." The panel members were Susan Coppersmith (University of Wisconsin, Madison), Marija Dmrdic (University of Pennsylvania), Ka Yee Lee (University of Chicago), Nadya Mason (University of Illinois, Urbana-Champaign), and Katharina Vollmayr-Lee (Bucknell College). The panel was chaired by Andrea Liu (University of Pennsylvania).

The challenge of balancing career with family is listed by many women as the primary reason for leaving academic science. The panel discussion had three aims. One aim was to provide the audience with an "existence proof" by gathering several women faculty

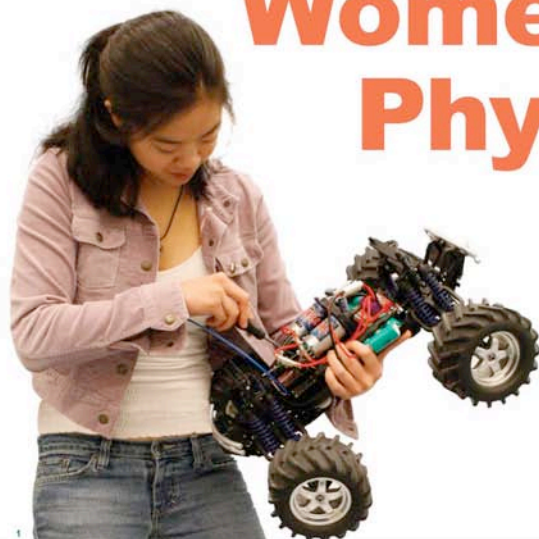
members who have young children as well as highly successful scientific careers. The second aim was to collect practical strategies for balancing career and family from the panelists. The final aim was to compile a list of recommendations for departments, academic institutions, funding agencies and professional societies. Several female graduate students in the audience commented that they came from departments with no women faculty and that it was inspiring merely to see the panelists gathered together as a group.

Each panelist presented a list of recommendations that she felt would make a real and immediate difference to women academic scientists. As several panelists pointed out, many of the recommendations

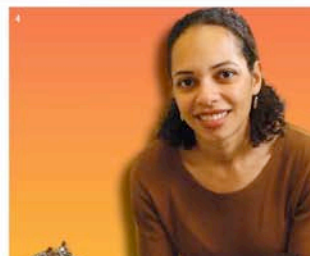
continued on page 2

Celebrate

Women in Physics



American Physical Society
www.aps.org



1. Janet Tsai shows off a mobile robot from the SCOPE project sponsored by Draper Laboratories. 2. Leslie Velazquez works through a calculation on the board at Franklin College. 3. Graduate student Huachen Zhang with her advisor Nora Berrah, Western Michigan University, checking the alignment of a detector. 4. Nadya Mason employs a dilution refrigerator to measure electron transport in samples at temperatures as low as 10 mK. 5. Margaret Murnane has invented new types of femtosecond lasers, which generate the fastest controlled events to date—lasting only a millionth of a billionth of a second. She and her students use these fast bursts of light to generate laser light beams of x-rays, which open up new windows into the nanoworld. PHOTO CREDITS: 1 & 2 MICHAEL ROBERTS; 3 JAMES GUNTER, THE UNIVERSITY OF TEXAS; 4 ANDREW THOMPSON, THE UNIVERSITY OF TEXAS; 5 TONY VALLACE, THE UNIVERSITY OF TEXAS. POSTER DESIGN: JENNIFER COVATTA. American Physical Society • One Physics Ellipse • College Park, MD 20740

The Fourth Annual Physics Teacher Education Coalition Conference PTEC 2008



Master Teachers: Change Agents for Teacher Preparation

February 29 – March 1, 2008
Omni Austin Hotel at Southpark, Austin, TX

Free for PTEC members, \$150 for nonmembers (To join PTEC see www.ptec.org/join). Attendance is limited. To register please go to www.ptec.org/conferences/2008.

Conference Overview

This conference will explore the critical roles that Master Teachers play in teacher preparation programs, including recruiting future teachers, mentoring pre-service and in-service teachers, co-teaching courses, and building bridges with local school districts. Conference sessions will also focus on the use of assessment in teacher preparation, including topics such as evaluation of teacher quality, implementation and interpretation of conceptual exams, and uses of formative assessment. The conference program features seven sessions of four concurrent 90-minute workshops that will actively engage participants in order to model an effective learning environment. The program includes considerable time to enable participants and presenters to network and share ideas informally.

Conference Workshops (partial list)

- The development of UTeach by Master Teachers. Mary Walker, Lynn Kirby (University of Texas at Austin)
- Learning Assistants (LAs): Re-imagining TA's as future pre-college physics teachers. Lane Sealey, Hunter Close (Seattle Pacific University)
- Master Teachers working with TAs and LAs: How you can utilize a Master Teacher to prepare future teachers. Gay Stewart, Tracy Bond (University of Arkansas at Fayetteville)
- Assessing coherent student understanding in introductory physics courses. Priscilla Laws (Dickinson College)
- Making the case: the role of data in supporting educational innovations. Steven Pollock, Noah Finkelstein (University of Colorado at Boulder)
- How do you know if they're getting it? Writing assessment items that reveal student understanding. Sean Smith (Horizon Research)
- The Student-Centered Activities for Large Enrollment Undergraduate Programs (SCALE-UP) project. Bob Beichner (North Carolina State University)
- Early field experiences: Their role in shaping and developing skills, dispositions, and teacher identity. Marcia Peters (Western Michigan University), Laura Lising (Towson University)
- Are you really teaching if no one is learning? How interactive lecturing can be used to measure and improve student learning. Ed Prather (University of Arizona)

Plenary Speakers

- Tom Luce, Chief Executive Officer of the National Math and Science Teacher Initiative to replicate the UTeach program, former U.S. Assistant Secretary of Education for Planning, Evaluation and Policy Development
- Julie Luft, Professor of Science Education, Arizona State University-Tempe, Principal Investigator on Exploring the Development of Beginning Secondary Science Teachers in Various Instructional Programs, former Associate Editor of the Journal of Research in Science Teaching

Poster Session

There is a contributed poster session. The deadline for title and abstract is February 13.

Pre- and Post-Conference Workshops (free to conference participants)

UTeach Curriculum and Courses

Michael Harder and Jill Marshall, University of Texas at Austin

Thursday, February 28, 11:00 a.m. to 4:00 p.m.

UTeach is the program to prepare secondary mathematics and science teachers at the University of Texas at Austin. UTeach has succeeded in doubling the number of math and science teachers graduating from UT Austin, and compact degree plans have played a role. During this workshop, participants will have the opportunity to view some of the UTeach courses in action, meet with UTeach students, and explore design of courses and the course sequence with UTeach faculty.

Interactions in Physical Science

Fred Goldberg, San Diego State University, and Robert Poel, Western Michigan University

Sunday, March 2, 8:00 a.m. to 3:00 p.m.

Interactions is a NSF supported, standards-based, guided inquiry physical science curriculum that was built on research on the teaching and learning of science. In this workshop, participants will be introduced to the Interactions curriculum, experience several activities, and work through part of the accompanying professional development materials that support doing inquiry at the middle-school level.

About PTEC

The Physics Teacher Education Coalition (PTEC) is a national network of institutions committed to improving the education of future physics and physical science teachers. The Coalition has nearly 90 members and organizes an annual national conference, topical and regional workshops, and an online collection of resources for teacher education. PTEC is part of the PhysTEC project, which is led by the American Physical Society (APS), the American Association of Physics Teachers (AAPT), and the American Institute of Physics (AIP). To learn more about PTEC, including the easy steps to become a member, please visit our website at www.ptec.org.

For more information about PTEC 2008, please visit the conference website: www.ptec.org/conferences/2008 or contact:

Gabe Popkin
(301) 209-3251
popkin@aps.org



AMERICAN PHYSICAL SOCIETY

2007 JOURNALS BROCHURE



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ARTIFICIALLY STRUCTURED MATERIALS
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STATISTICAL & NONLINEAR PHYSICS
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PHASE TRANSITIONS &
STRONGLY CORRELATED SYSTEMS
QUANTUM INFORMATION,
CONCEPTS & COMPUTATION

ABSTRACT DEADLINE: NOVEMBER 27, 2007

2008

A M E R I C A N
P H Y S I C A L
S O C I E T Y

APS
physics

MARCH MEETING

MARCH 10-14 NEW ORLEANS CONVENTION CENTER WWW.APS.ORG/MEET/MAR08

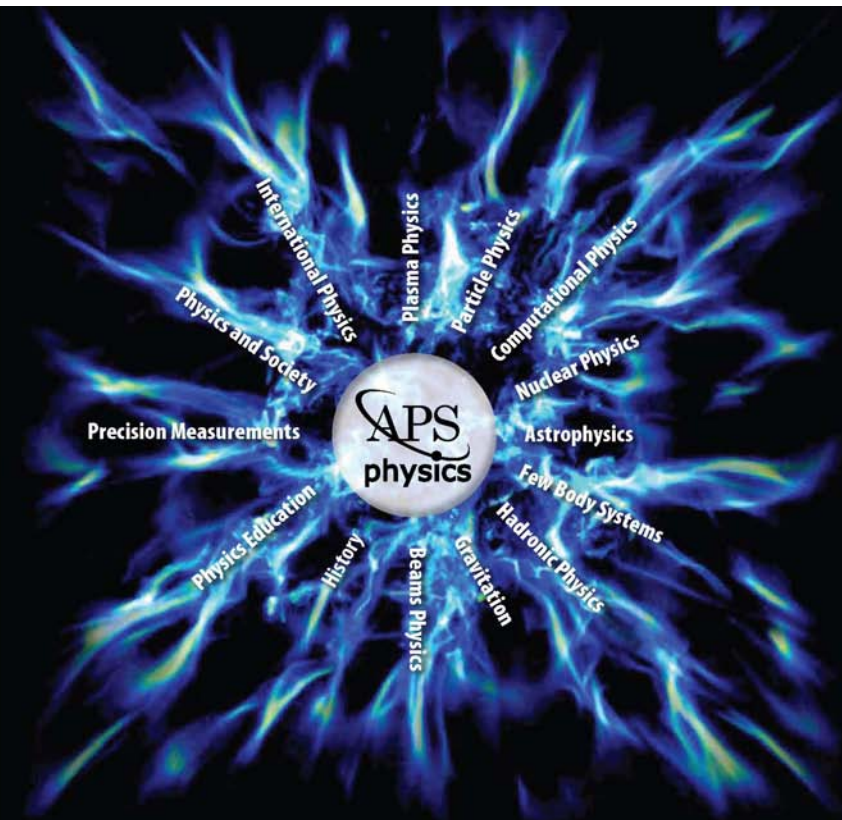
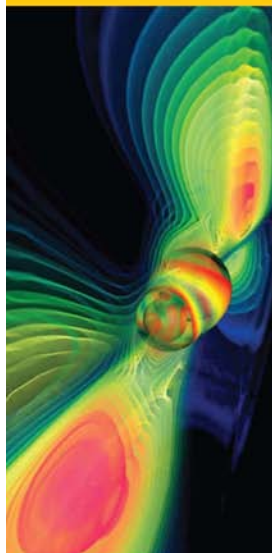
APS
physics



April Meeting

AMERICAN
PHYSICAL
SOCIETY

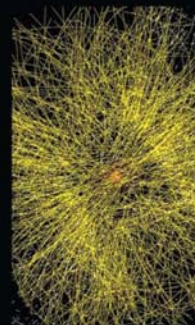
APRIL 12-15, 2008
ST. LOUIS, MISSOURI



Joined by the conference sponsored by HEDP (High Energy Density Physics)
and HEDLA (High Energy Density Laboratory Astrophysics).
The program will include plenary and invited sessions, oral and poster presentations.

www.aps.org/meet/APR08

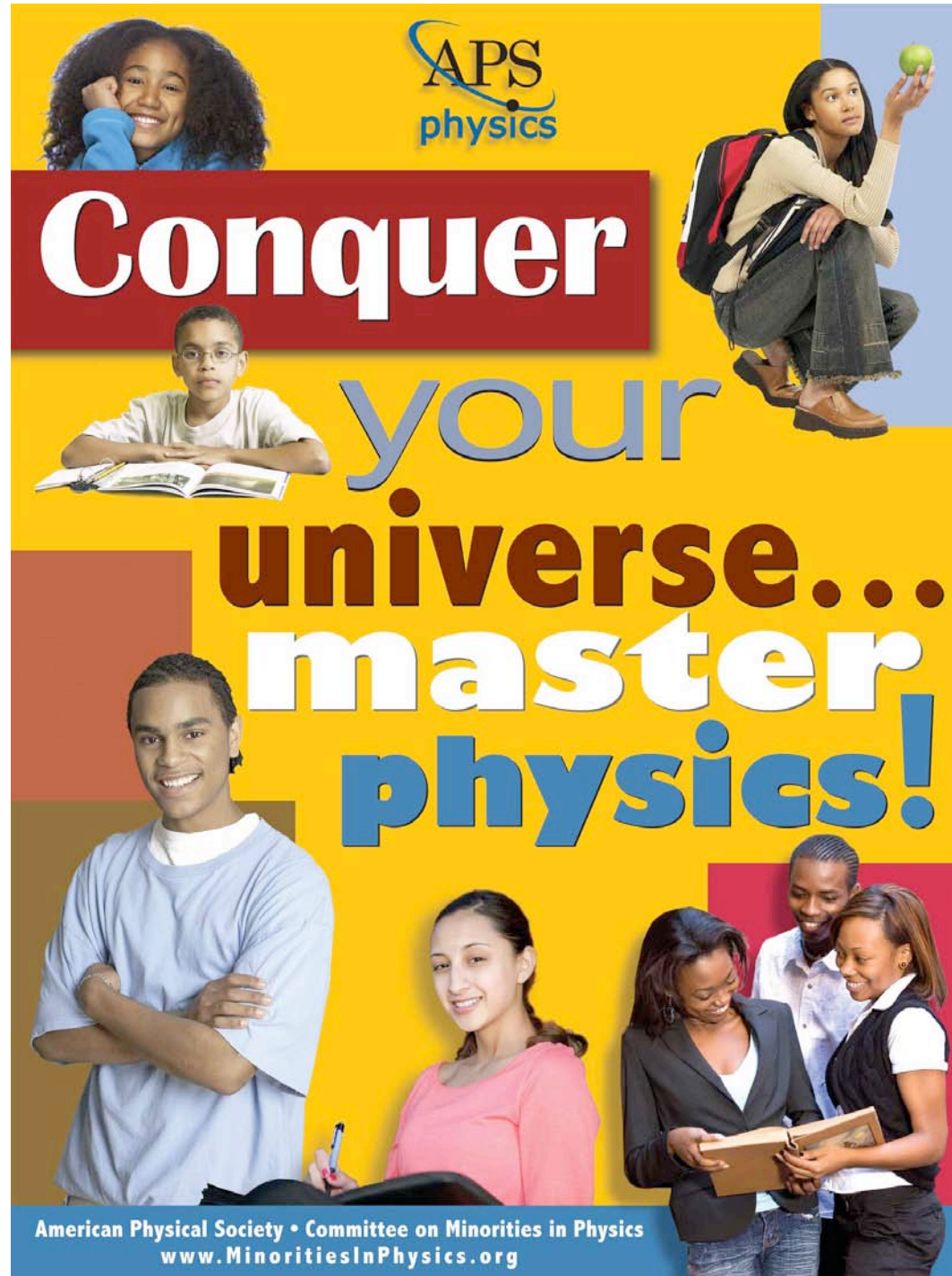
Abstract Deadline: January 11, 2008



2008 April Meeting Program Committee

Natalie Rose, Chair - LLNL
Richard Milner, Co-Chair - JHT
Steve Kahn - Stanford University
Mao-Yin Chen - Georgia Tech
Richard Gaston - Yale University
Erich Kasper - Fermilab
Steve Holmes - Fermilab
Anitava Bhattacharjee - University of New Hampshire
Wayne Parys - University of Iowa
Eric Hecox - York University
David Garfinkle - Oakland University
Curtis Meyer - Carnegie Mellon University
Steven Spangler - University of Iowa
Andrew Zwicker - Princeton Plasma Physics Laboratory
David Cassidy - Hofstra University
Satoshi Ozaki - Brookhaven National Laboratory
Meghan Anzole
Emile Mohamed

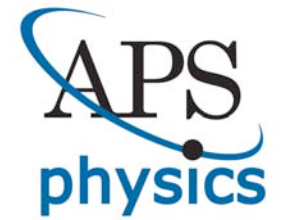
APS
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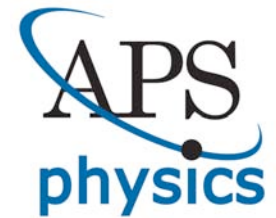
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Energy Future: Think Efficiency Report





Arlene F. Modeste Knowles
*Outreach Programs Administrator
Education and Diversity*

Phone: (301) 209-3232
Fax: (301) 209-0865
Email: knowles@aps.org

American
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Society

One Physics Ellipse
College Park, MD 20740-3844
www.aps.org

Date here

Address line 2
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Address line 2
City, State/Province and Postal Code
Email address.com

Dear Friend,

Sample text here. Replace this text with the contents of your letter. Replace this
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your letter. Replace this text with the contents of your letter. Replace this text with the
contents of your letter.

Sincerely,

Signature



www.aps.org

Arlene F. Modeste Knowles
*Outreach Programs Administrator
Education and Outreach Department*

Email: knowles@aps.org
Phone: (301) 209-3232
Fax: (301) 209-0865

AMERICAN PHYSICAL SOCIETY
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**Thank you note
to APS members
for their
donations**



Help the Outreach Programs of the APS with Your Annual Voluntary Contribution

Dear APS Member:

APS outreach programs benefit from the annual voluntary contributions included with membership renewals. These contributions are important, as your membership dues only cover the cost of member services, and the Society's publications and meetings are budgeted to pay for themselves. Therefore, in order for the Society to continue to support and expand our programs in the areas of science education, international cooperation, and science policy and public information, we must rely in part on the generosity of our members. Examples of activities that benefit from your support are:

- **PhysTEC Program** – seeks to expand the pool of well-educated K-12 physics teachers.
- **High School Teachers' Days** – offers professional development for high school teachers through research talks, hands-on workshops, and the opportunity to interact with leading physicists.
- **Physics Central Website** – brings the excitement and importance of physics to the public at large through in-depth stories, profiles of physicists, artistic visuals and educational materials.
- **Minority Scholarship Program** – seeks to increase the number of historically under-represented minorities in physics through financial and mentor support.
- **Women & Minority Speakers Programs** – provides opportunities for physicists to visit high school and universities to serve as role models to students.
- **International Collaborations** – fosters scientific dialog and exchanges in addition to activities on behalf of human rights and freedom of physicists worldwide.
- **Public Affairs Fellowship Programs** – promotes public understanding and appreciation of science on Capitol Hill and with the public at large.

Please consider providing a voluntary contribution in addition to your dues payment. Gifts can be designated to select program areas or unrestricted to benefit the programs of greatest need. We are very appreciative of gifts of all sizes and are pleased to provide special recognition for gifts of \$100 or more, with your permission, by including your name in the APS Annual Report.

Thank you in advance for your positive consideration of this request. Your support will help ensure the success of the Society's education and outreach efforts into the future.

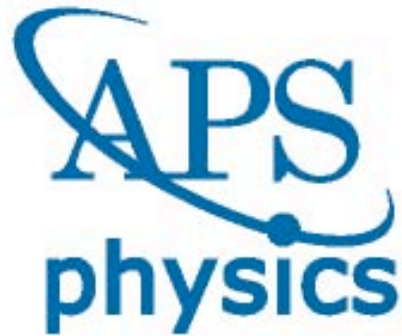
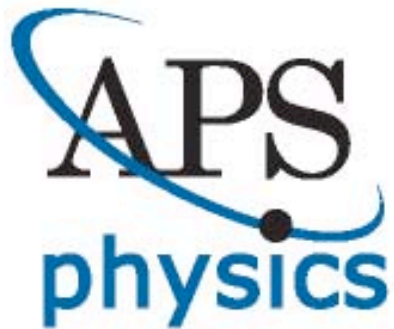
Sincerely,

A handwritten signature in blue ink that reads "Joseph W. Serene".

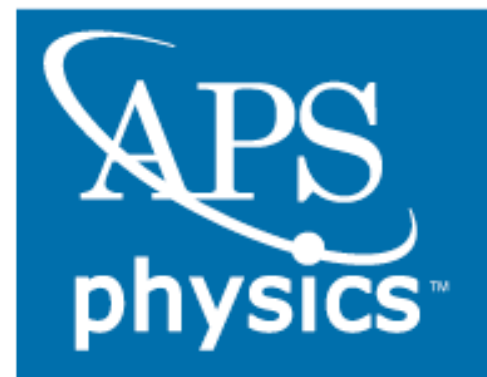
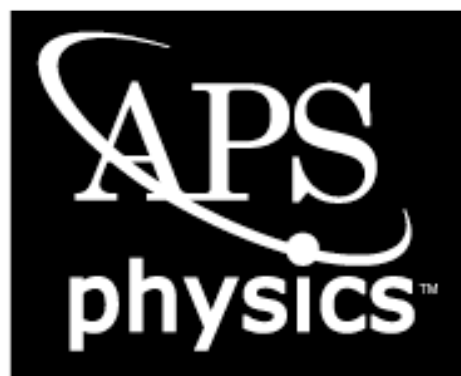
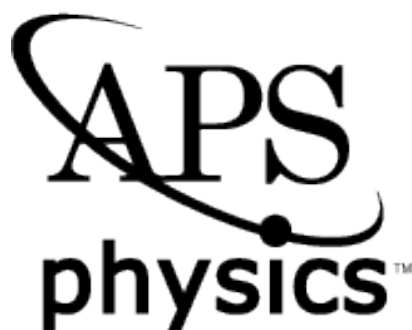
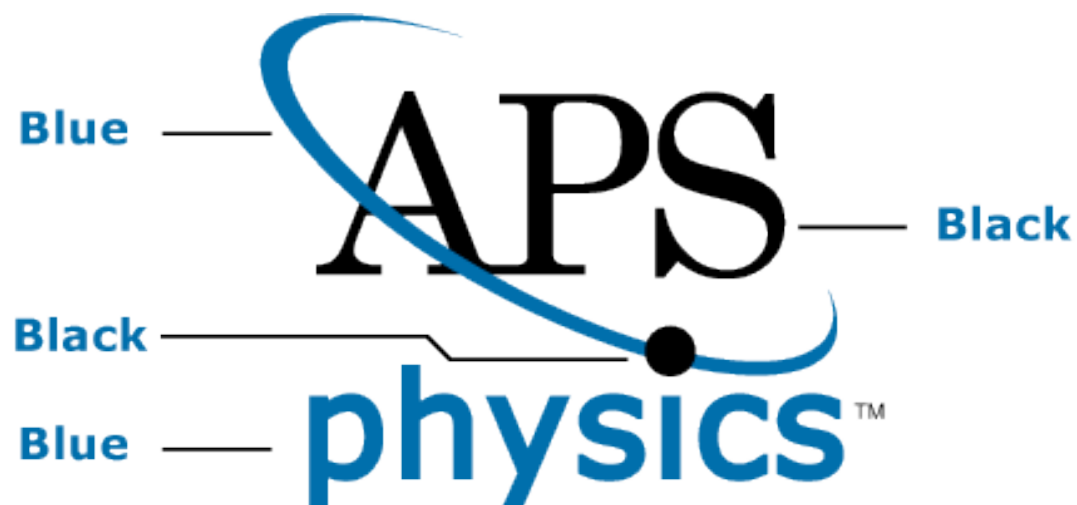
Joseph W. Serene
APS Treasurer

For more information, please feel free to contact our Development Office:
Darlene Logan, Director of Development, 301-209-3224, logan@aps.org

Various logo designs



Proper presentation of APS logo

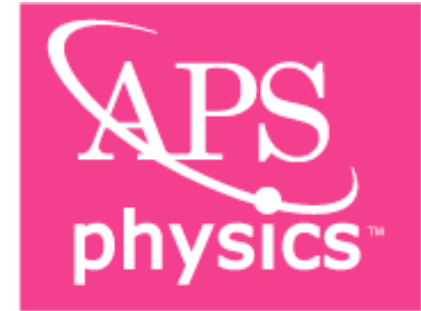
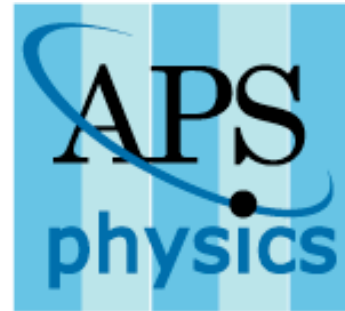


APS preferred typeface: New Century Schoolbook

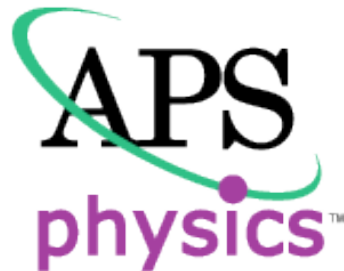
Alternative typeface: Times New Roman

Unacceptable presentations of the logo

Different colors
or backgrounds



Incorporated
with other text



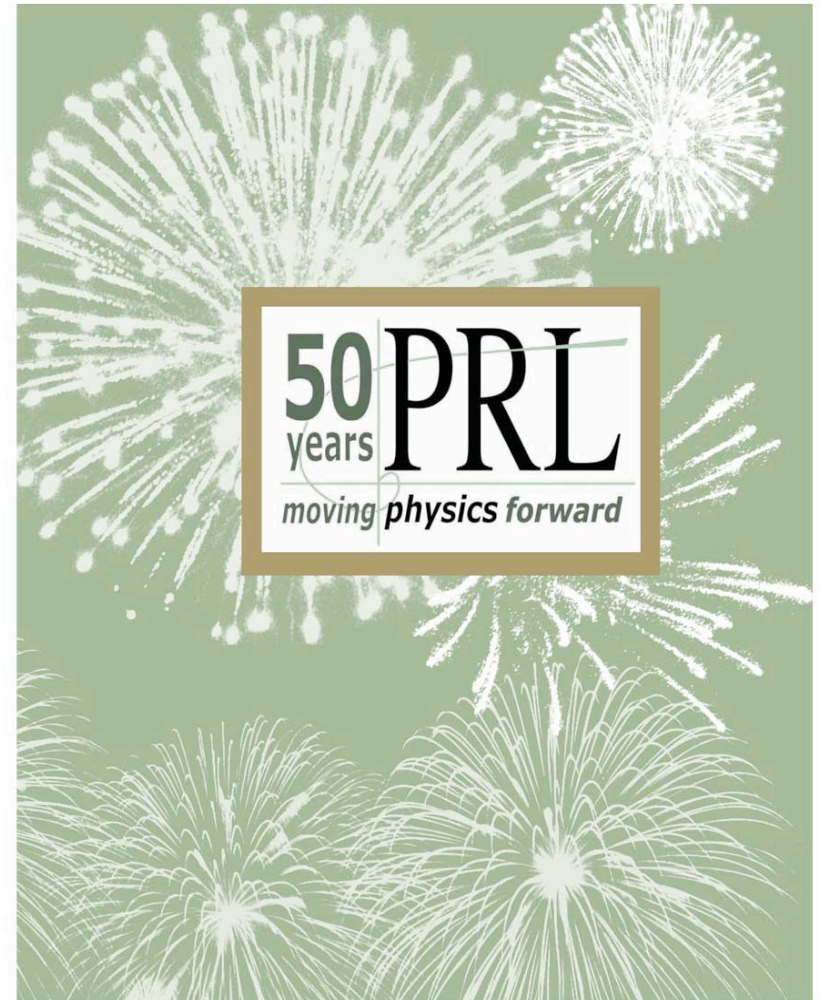
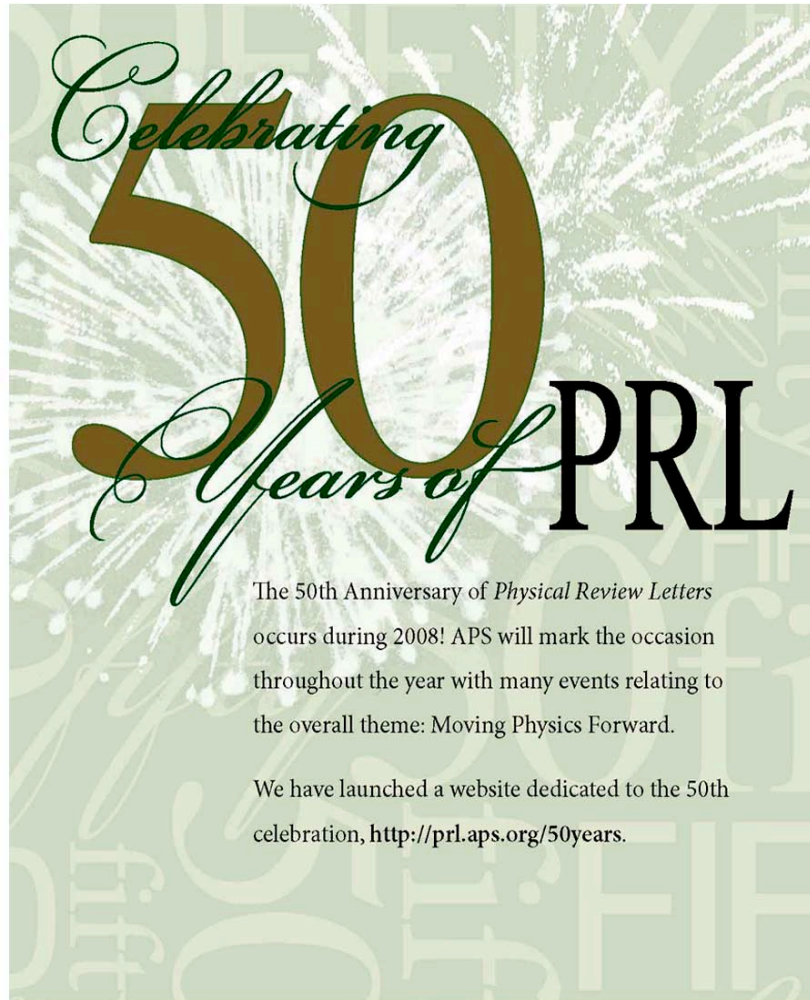
Capitalized "P" or wrong font



Without the
"APS" acronym
or word "physics"



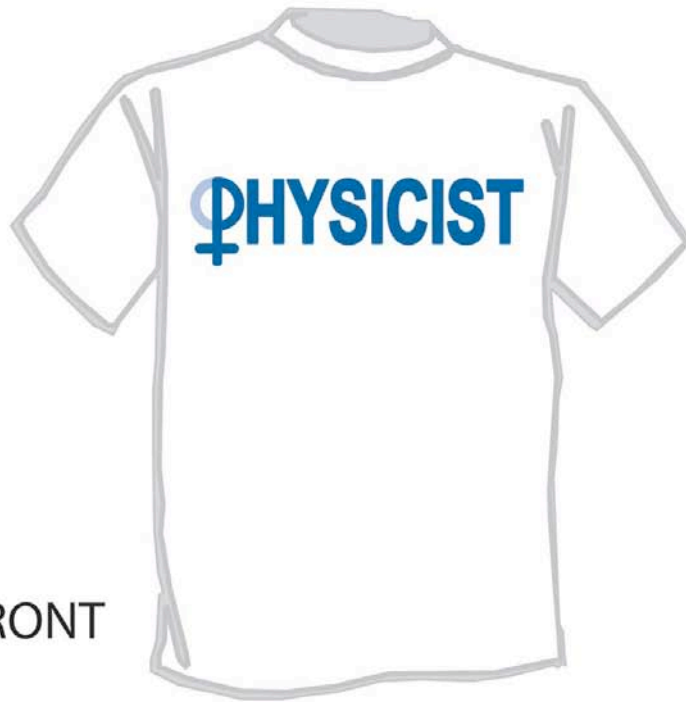
Promotional pieces Celebrating 50 Years of PRL



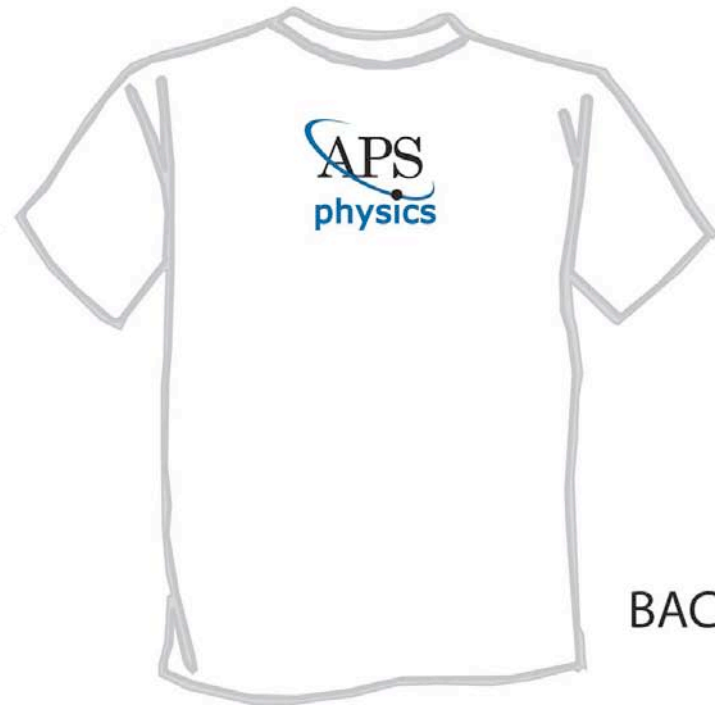
T-shirt designs

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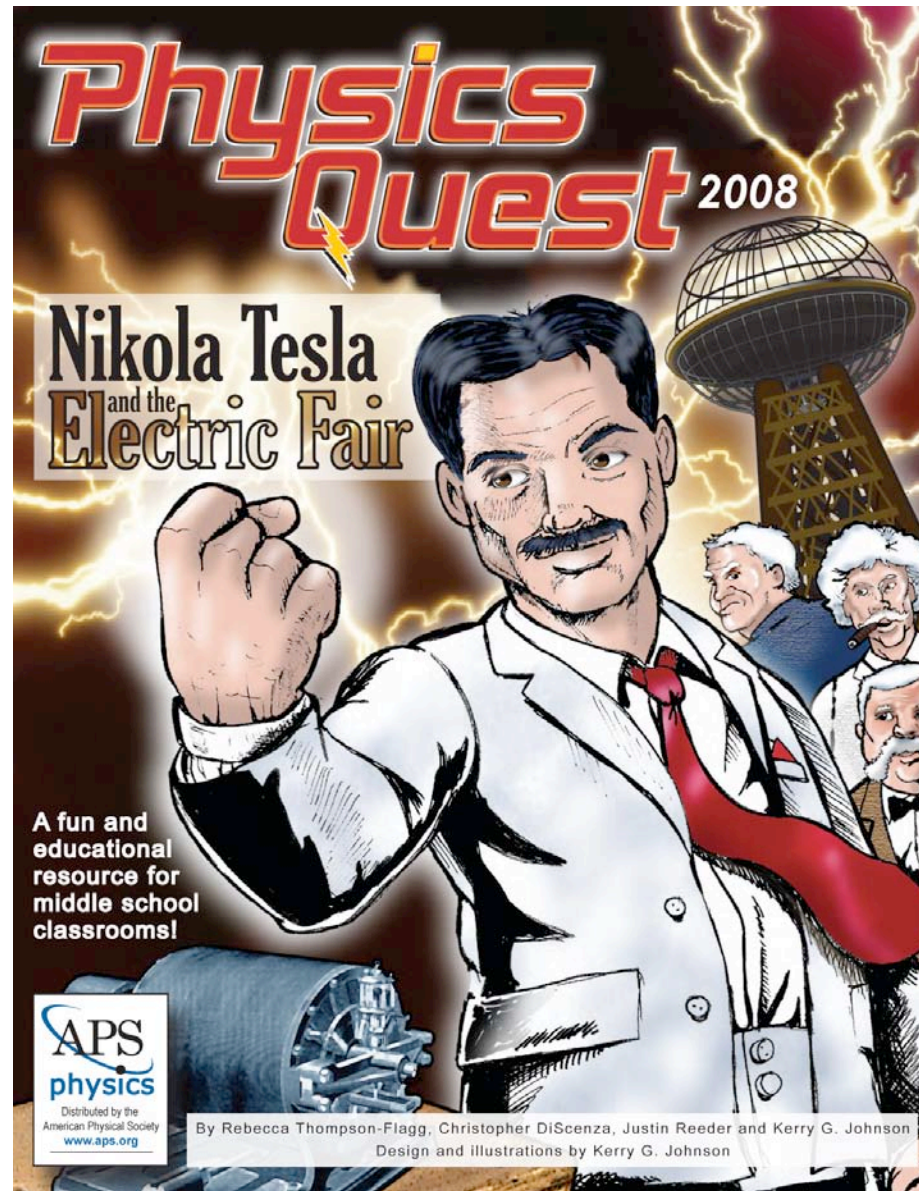


FRONT



BACK

Outreach department



3-feet by 12-feet vinyl banner

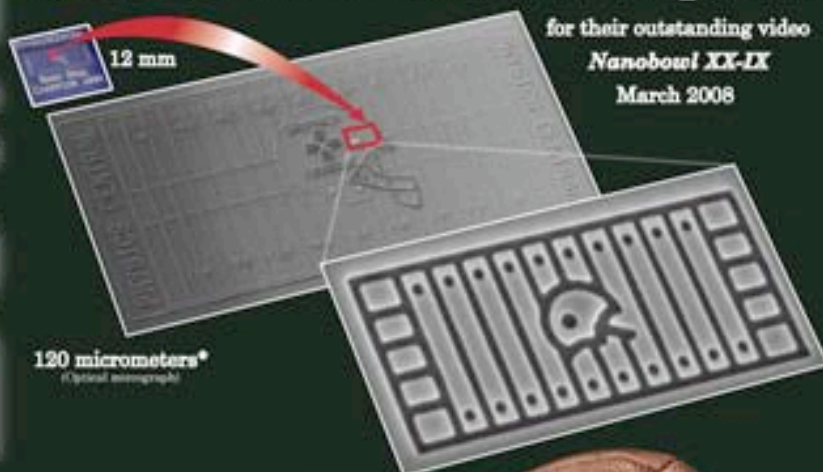


2008

American Physical Society

NANOBOWL 2008 Grand Champions

for their outstanding video
Nanobowl XX-IX
March 2008



120 micrometers*
(Optical micrograph)

2.4 micrometers
(Electron micrograph)



The actual chip
Size: 12 millimeters

APS
physics



1 micrometer = 1 millionth of a meter



The American Physical Society
honors

for excellence in science communication at the
Langley High School Science Fair

February 9, 2006

Dr. Jessica Clark
Board of Public Outreach
American Physical Society



The 2006
Alabama State Science & Engineering Fair's

Physics Award

presented to

Special Publications Department



Kerry G. Johnson

Art Director and Special Publications Manager

kjohnson@aps.org (301) 209-3277

Leanne Poteet

Graphic Designer

poteet@aps.org (301) 209-3284

Krystal Ferguson

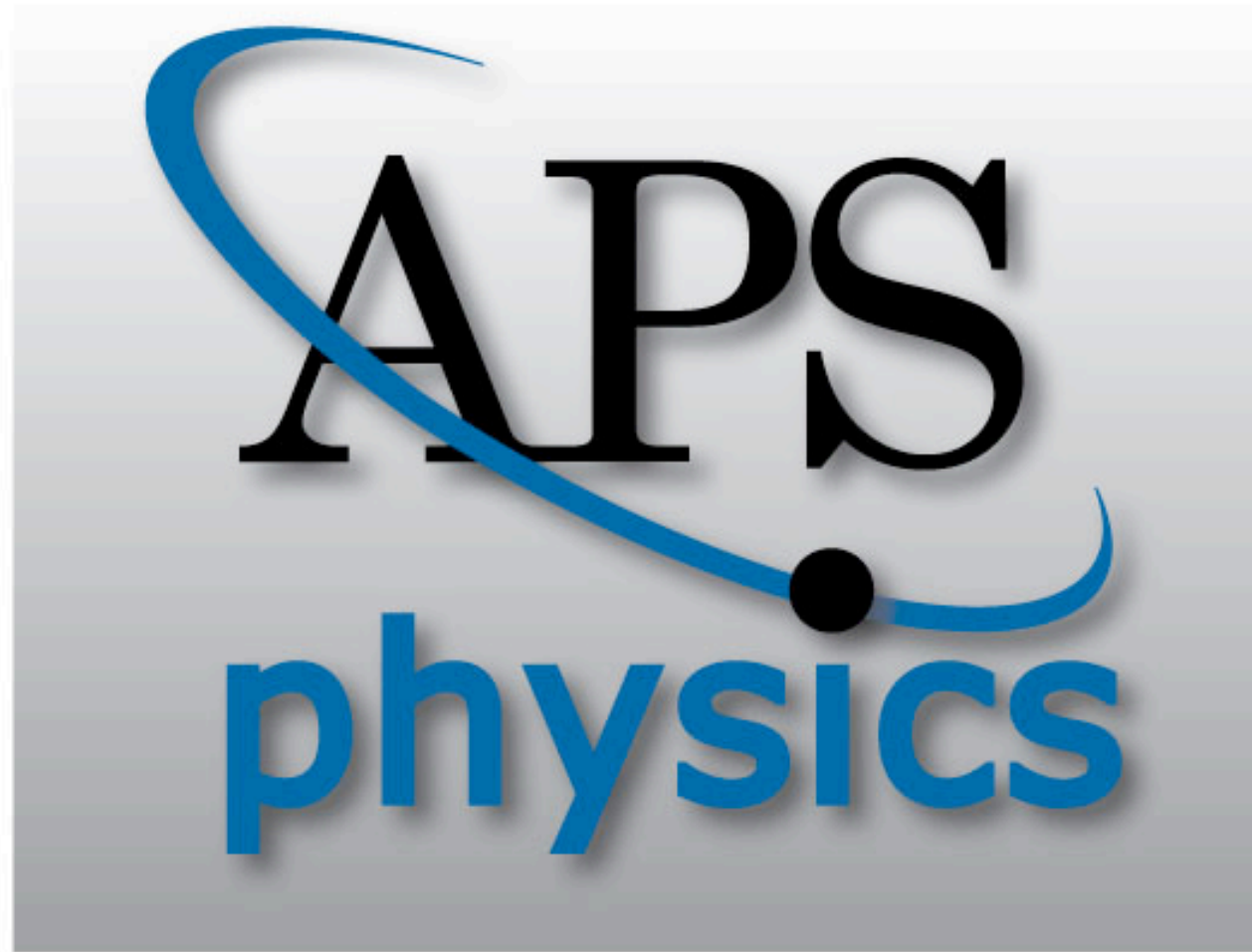
Graphic Designer

ferguson@aps.org (301) 209-3232

Nancy Bennett-Karasik

Publications Designer

karasik@aps.org (301) 209-3274



Special Publications Dept.