Committee Selects Twenty-six Undergraduate Minority Scholars

The APS Committee on Minorities has selected 27 students to receive their Scholarship for Minority Undergraduate Physics Majors for 2005-2006. The recipients include 16 new scholars and 11 renewal scholars. Each new scholarship consists of $2,000, which may be renewed once, for $3,000. The scholarship may be used for tuition, room and board, and educational materials. In addition, minority scholars are paired with two mentors, one at their university and one from the Committee on Minorities. Physics departments that host a minority scholar each receive $500 for programs to encourage minority students.

The program, formerly known as the Corporate-Sponsored Scholarship for Minority Undergraduate Students Who Major in Physics, began in 1980. Since then, more than 300 students have received the scholarship, many of whom have gone on to receive PhDs in physics and are now working as physics faculty members in universities, as well as corporations and national labs. Some past scholars have also become high school physics teachers.

The new minority scholars for 2005-2006 are a diverse group. They come from all over the country, including Puerto Rico. Among the 16 new scholars, four are women. They have all amassed an impressive number of awards and honors. Some have already engaged in physics research projects.

In addition to their scholarly pursuits, these students participate in a dizzying number of activities, from sports to music to student government to volunteer work. The Scholars will attend diverse institutions, including Ivy League schools.

Nuclear Physics Facilities Confront Funding Crisis

By Ernie Tretkoff

The US nuclear physics community appears to have survived a critical funding challenge this year, but prospects for continued operations of both its major experimental facilities in future years could still be in jeopardy.

In February, the President's budget request included funding cuts in the Department of Energy's budget for nuclear physics to $370.4 million, a reduction of 8.4% from FY05. The majority of the DOE budget for nuclear science is dominated by two large facilities—RHIC at Brookhaven and CEBAF at Jefferson Lab.

At the level of the President's budget, the preference for RHIC over JLab is clear (see accompanying Nuclear Physics article on page 3). At the level of the NSF's Assistant Director for Mathematical and Physical Sciences, Michael Turner, jointly asked the Nuclear Science Advisory Committee to study the structure of nucleons. “It's really not possible to run these two large facilities,“ said Tribble. The subcommittee also studied priorities for several future budget scenarios. RHIC and JLab both probe the workings of nuclear matter, but with very different approaches. RHIC smashes heavy ions together with the aim of creating a new form of quark-gluon matter, while CEBAF uses a continuous beam of high energy electrons to study the structure of nucleons.

“There's a lot of science going on. (RHIC and JLab) are unique in different ways. It's not obvious how to proceed," said Tribble. “It's not that hard to pronounce the two's one right after the other. Appeal to your sensitive ear and less than nimble tongue if you must, don't blame it on the grammar." —Alan Chodos

Nuclear Physics continued on page 3

Highlights

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By Frederick Lamb

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Looking Back and Looking Forward for APS
Byხოლონის გარშემო თავისუფლება
“There are theories that predict that we shouldn’t get rays of this high energy on Earth. If they do occur, it’s a sign we need some new physics.”

—Pascalia Rankin, University of California, Irvine

“NASA is good at fixing the casual mistake. It’s about 1.5/1000 th the size of a football stadium to a height of 25 miles and it’s floating around with invisible winds. But it’s as reliable as launching a satellite and a lot cheaper and faster.”

—Simon Dicker, University of Maryland, on global warming researcher Charles D. Keeling, who died June 15, 2005

“It sounds absolutely crazy. You send it up on a helium balloon the size of a football stadium to a height of 25 miles and it’s floating around with invisible winds. But it’s as reliable as launching a satellite and a lot cheaper and faster.”

—Pascalia Rankin, University of California, Irvine

“Charles Townes, on his ultra high telescope, The Guardian, June 13, 2005

“It has been, let me say, a bad few years.”

—Benn Tannenbaum, AIA, on architectural systems and US border security, The New York Times, June 22, 2005

“His government funding sources told him in effect that ‘You haven’t shown that atmospheric carbon dioxide is increasing, now find some other interesting science to do.’ He fought to continue his measurement series, with support from many other scientists, and was back taking data in May of 1964.”

—F. Sherwood Rowland, University of California, Irvine, on global warming researcher Charles D. Keeling, who died June 15, 2005

“Trent’s final address was a narrow, focused beam of microwaves that shortened, the more strongly the light interacted with the molecules, and Townes could learn about them. He thought it might be possible to develop a device that produced light at much shorter wavelengths. The best way to do this, he thought, would be to use molecules to generate the desired frequencies through stimulated emission.”

—Townes mentioned the idea to a colleague (later his brother-in-law), Arthur Schawlow, who proposed that the prototype laser be fitted with a pair of mirrors, one at each end of the lasing cavity. Photons of specific wavelengths would then reflect off the mirrors and travel back and forth through the lasing medium. By doing so, they would in turn cause other electrons to relax back into their ground states, emitting even more photons in the same wavelength. So only photons of the exact wavelength and frequency range would be amplified.

“The two men wrote a paper detailing their concept, published in the December 1958 issue of the Physical Review, although they had yet to build a working prototype. They received a patent for their design two years later—the same year that the first working laser was built by Theodore Maiman at Hughes Aircraft Company.”

Blume, Ginsparg Receive Meritorious Achievement Award

The Council of Science Editors has presented its highest award, the Meritorious Achievement Award, to two recipients, Martin Blume and Paul Ginsparg. Blume is APS editor and associate director of the Alamos Electronic Preprint Archive, and Ginsparg is a pro- fessor of applied physics specializing in quantum field theory and digital knowledge networks.

Ginsparg received a PhD in physics from the California Institute of Technology and Cornell University, specializing in quantum field theory and string theory and digital knowledge networks. In 1991, he developed the Los Alamos Electronic Preprint Archive, now called arXiv.org, an open-access serv- ice with more than 1 million articles in physics, and tens of thousands of articles in mathematics, nonlinear science, computer science, and quantitative biology.

Blume received a PhD in physics from the University of California, Berkeley, and a Fellowship at Tokyo University, and was a member of the Los Alamos National Laboratory, and the State University of New York at Stony Brook. Both recipients were authors of APS Guidelines for Professional Conduct, including supplementary guidelines on Responsibilities of Coauthors for use in journal Research Results, and References in Publication. He frequently writes and speaks about the challenges of electronic publishing.

NUCLEAR PHYSICS CONTINUED FROM PAGE 1

Another issue raised implic- itly by the Board was whether the name American Physical Society should be retained for internal purposes. In Cohen's email message, members were informed that "the Board is mindful of the 106-year history of the American Physical Society, and would consider using this name for internal purposes, such as our journals and web site." However, in their comments, both those in favor of the name change and those opposed by, and large rejected this idea. A typical comment from a member strongly in favor was "if you are going to change the name, go all the way; 'Physical' should not be used even internally.

Another said "Keeping 'Physical' for internal use may satisfy nos- talgia but will necessitate duplication and a constant need for explanation. I vote for clean change to American Physics Society." A member who was strongly opposed said "I'm par- ticularly opposed to the concept of having two identities, which is bound to lead to significant confusion." Many of those who responded in favor had personal expe- riences to recount regarding confusion over the word "physi- cal." Said one, "I now work in a non-academic field (venture capital). Trust me on this...95% of the people I know and work with have no idea what 'physical society' means. Sounds like an aerobics organization. And these people are not idiots, they are engineers, businesspeople... etc. CHANGE THE NAME!

Another person commented, "Many years ago during an APS March Meeting, a colleague met me in a bar for a drink. The illus- tration on the cover of that year's program was a Buckeyball. My colleague, while heading to the bar, overheard a couple of people on a street corner, where one said 'What is this American Physical Society?' The other said, 'They must be Physical Education instructors, because they have a soccer ball on the book they all carry.'

Many of those in opposition noted that the name American Physics Society was less inclusive. Said one opposed member, "There is more than just physics to the American Physical Society. The word physical is more inclusive. APS represents materials scientists, polymer sci- entists, etc. who do not consid- er themselves exclusively physicists." Added another, "The change from physical to physics suggests an exclusion of physical scientists who are not physicists, e.g., physical chemists, physical biologists. As a physical chemist working in the area of biophysics and biology, I am concerned that the name change ill-advised." "Many of these comments make valid points," Cohen said, "I was especially struck by the opposition to having two names, and by the contention that 'physical' is a more inclusive term than 'physics.' The Board will consider action on both issues when it meets in September.

I'm Shocked, Shocked

As part of the World Year of Physics outreach effort organized by APS, 20 “physics on the road” teams are traveling the country sup- ported by funds from NSF, DOE and NIST, bringing physics to the public arena. Here a passerby in a Syracuse, NY shopping mall has a chance to place her on a charged Van de Graaff machine, with hair-raising results. The event was organized by the “Orange Physics” team from the physics department at Syracuse University.

NAME CHANGE CONTINUED FROM PAGE 1

Log on to the APS Web site (http://www.aps.org/public_affairs) for more information.

Washington Dispatch

A bimonthly update from the APS Office of Public Affairs

ISSUE: RESEARCH FUNDING

Congress has begun drafting its appropriations bills and the news is filled with references to the current fiscal fiasco and the presidential request. The exception is the National Science Foundation (NSF), for which the Senate Appropriations Committee recommended a 1.1% increase over the FY05 budget of $5.47B but $74M less than the President’s request of $5.61B. The House approved a 3.1% increase for NSF, $38M more than the request. The Department of Energy Office of Science has fared better in Congress than in the President’s budget, which requested a cut of 3.9% from FY05 budget of $3.6B. The Senate bill would increase the budget by 2.8%, while the House bill would increase the budget by 1.8%. The NIST Scientific and Technical Research and Services (STRS) account would see an increase from the FY05 level of $378M to $398M (5.3%) in the House bill and to $400M (5.8%) in the Senate bill. For Department of Defense basic and applied R&D, the Senate bill reversed the deep cut (budget of $17B) in the presidential request and approved a 2.2% increase over the FY05 level of $6.3B. The Senate has yet to mark up its Defense spending bill.

After both the House and Senate have approved an appropriations bill, the two versions are sent to a “Conference” committee composed of members from both chambers. The reconciled bill is then sent back to both chambers for approval before going to the President for his consideration. The progress of all spending bills is tracked at the AAAS website: http://www.aaas.org/spp/rd/approp06.htm.

ISSUE: ENERGY AND NATIONAL SECURITY

As previously reported, the APS Panel on Public Affairs (POPA) issued a Discussion Paper on nuclear power and proliferation resist- ance during August to September. This paper is a contribution by Dr. Roger Hagengruber of the University of New Mexico, testified before the House Science Subcommittee on Energy on June 16th at a hearing on the waste reprocessing issue. Hagengruber noted that the POPA report, although not ruling out the need for repro- cessing, concludes that no immediate decision is necessary and that a rush to implement it could “threaten future growth of the use of nuclear energy.” Referencing the West Valley debacle (the only US reprocessing, concludes that no immediate decision is necessary and that a hearing on nuclear waste reprocessing. Hagengruber noted that the ISSC Study titled, “Securing Benefits, Limiting Risk.” The chair of the study, issued a Discussion Paper on nuclear power and proliferation resist- ance.

One of the key issues when it meets in September will be considered action on both the House and Senate Appropriations Committee website (http://www.house.gov/science/wel- come.htm) and go to the Webcast link. To view the study report, please go to http://www.aps.org/public_affairs/proliferation-resistance/.

ISSUE: GLOBAL COMPETITIVENESS

Rep. Frank Wolf (R-VA 10th), Chairman of the Appropriations Subcommittee on Science, State, Justice, Commerce and Related Agencies, has called on President Bush to triple the innovation (basic research) budgets of math and engineer- ing in order to address high-tech competition from abroad. He has also directed the Department of Commerce to hold an Innovation Summit on February 28-29, which will be organized with help from the House Science Committee. At Wolf’s suggestion, a group of high-level industrial CEOs and former CEOs has petitioned the White House for a meeting with President Bush to discuss the need for a national innovation initiative.

Log on to the APS Web site (http://www.aps.org/public_affairs) for more information.

"I'm shocked, shocked!" The Council of Science Editors has presented its highest award, the Meritorious Achievement Award, to two co-recipients, Martin Blume and Paul Ginsparg. Blume is APS editor and associate director of the Alamos Electronic Preprint Archive, and Ginsparg is a pro- fessor of applied physics specializing in quantum field theory and string theory and digital knowledge networks.
Collaboration with Iran could be risky

Emrie Trettick's reporting on the subject of the recent diplomatic failure in Iran and Hessamaddin Arfaei's efforts to improve Iranian scientific collaboration is an important message that we simply cannot ignore. The issue is not just important reportage but also provokes many questions that we should ask ourselves as well as our prospective government officials about the practical and intellectual pursuits of truth and knowledge.

The APS has been in the forefront of promoting human rights by way of supporting efforts of internationally recognized physicists to resist totalitarian suppression of freedom of speech and freedom from oppression. Perhaps this is the time to re-embrace the ... have to play our part. I believe that we have to support this action, if unwittingly.

I support the long-term objectives of freedom of access. An open society is apt to be a more democratic society, we are not policed by the government as we are now. Germany is a good example - it is one of the best known police states of the democratic world. Does, for example Professor Arfaei's desire for more international collaboration extend to any non-Muslim scientists? I may still, if against, remain in Iran. Does his humanitarian position include all Jews and Christians and the Iranian scientific community?

Perhaps just as important, if not more so, what are the implications of giving Iran access to military equipment? Given that the Iranian government is not a democratic society: What is the probability of the society in which we are dealing being a well-armed society? And if we do, does it not follow that we should also ask ourselves what we are exposing ourselves to in terms of global risk?

I cannot fully answer that question on my own, and believe that we should have a healthy discussion on the implications of our position and efforts. This is and always has been the key dilemma of science in a free democratic society. What is the proper balance between free and open expression of intellectual activity and the need to act responsibly to guard the security of the culture that enables such freedom?

Joseph Arfaei
Irvine, CA

Senate Majority Leader Harry Reid (D-Nev.) last week called the Iran nuclear talks a TypeError continued on page 5

Viewpoint... A More Effective Approach to US Security

By Frederick Lamm

Nuclear weapons are the only weapons that could be used to cause a more fundamental threat to the country than making plans to go back to the Moon and on Mars. This is the moment that our country, in our time, can act to publicize the education of the public by carrying out such a conversion on a small, relatively inexpensive, but pedagogically valuable scale. The program could do this by converting their football fields from 100 yards to 100 meters. The 100 meter football field, as I pointed out in 1996 in the American Scientist, can be used to make the learning of physics easier for our students.

Such a football field conversion by our colleges and universities would be helpful to our public to remind Congress of its Constitutional responsibility in this area, and to take the necessary action. The future of the US very much depends upon it.

Frank R. Tangherlini
San Diego, CA

Letters continued on page 5

Boulder, CO

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I was particularly troubled by your charge that APS was not doing its part to educate the public. In the CLAS Collaboration and I wish that APS had researched the search for pentaquarks. A more honest impression that CLAS played a role in the search for pentaquarks. This is by far the most significant evidence for a pentaquark. The headline article gives the CLAS spokesperson the 1540 state. A more honest representation of the CLAS spokesperson article was accurate, the article was unclear on one point. The latest CLAS measurement repeated a previous experiment by the SAPHIR collaboration and found a null result. But the CLAS measurement on the proton which showed a 7.8 sigma pentaquark peak (that measurement, based on the same data, was highly suppressed. When the existence of a signal is confirmed, the scientific method is to repeat the experiment in order to achieve higher statistics in about a year. The article emphasizes the results from the CLAS collaboration in a paper. In fact, the article states "But other studies have produced null results, casting doubt on the original positive sightings." One reason the new CLAS measurement on the proton was so important because it was not clear that the previous null results had the sensitivity to see a pentaquark signal. For example, please see preprint nucl-th/0408001 which shows, in a theoretical model, that pentaquark production and fragmentation-dominated reactions are highly suppressed. When the existence of a signal is confirmed, the scientific method is to repeat the experiment in order to achieve higher statistics in about a year.
Native American Physicist Pursues Career at Caltech

By Ennio Testafu

Former APS Corporate Minority Scholar J. Sequoah Aldridge, a member of the Cherokee Tribe, recently received his PhD and is now teaching at Caltech, making him one of a small number of Native American physicists. Aldridge is studying condensed matter physics, the great grandson of Sequoah Trottongwolf, after whom he is named.

As a child he demonstrated an aptitude for math and science. “At a young age, I already occupied, I took math classes at a community college,” he said. He has since completed his PhD at Caltech and is currently a research scientist.

Aldridge grew up in Escondido, California, a suburb of San Diego. “As a child he demonstrated an aptitude for math and science. “At a young age, I already occupied, I took math classes at a community college,” he said. He has since completed his PhD at Caltech and is currently a research scientist.

The National Academy of Sciences (NAS), is celebrating its 25th Anniversary During World Year of Physics. For 25 years the Committee on International Security & Arms Control Celebrates.

MINORITY SCHOLARS CONTINUED FROM PAGE 1

League universities and historically black colleges and universities. They have expressed interest in many areas of physics, including physical and applied mathematics, which is nuclear physics. One plans to become a doctor, another dreams of becoming an astrophysicist with NASA. But they are alike in their passion for physics, their curiosity about how the world works, and their desire to make a difference.

A member of the Chippewa tribe, a former scholar with Genua, says he wants to go into nuclear physics, because he is concerned about the proliferation of nuclear materials. He recently received his PhD and is now teaching at Caltech, making him one of a small number of Native American physicists. Aldridge is studying condensed matter physics, the great grandson of Sequoah Trottongwolf, after whom he is named.

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The National Academy of Sciences (NAS), is celebrating its 25th anniversary during 2005, the World Year of Physics. Many of the challenges that CISAC faced 25 years ago persist in different forms in the 21st century. For example, the committee’s 1991 study, “The Future of the U.S.-Soviet Nuclear Relationship,” considered how the United States and the Soviet Union could significantly reduce their nuclear arsenals below the levels prescribed by the Strategic Arms Reduction Treaty (START). Fifteen years later, strategic arms reductions and safeguards for nuclear warheads remain on CISAC’s agenda. Today, however, the threat of nuclear war is not as imminent as it was 25 years ago, but the issues remain important.

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Many summer classes and activities in the past few years, Williams plans to spend most of this summer at home, relaxing. "It seems like I've always been going, going, going," she says. In the fall she will be going to Yale University. Williams wants to share her outlook on life: "I want to encourage people to not doubt themselves. People are too afraid to try new things." Her motto, she says, is: "If in doubt, do it anyway." Many of the new minority scholars seem to have followed that advice well.

Any African-American, Hispanic American, or Native American US citizen or permanent resident who is majoring or planning to major in physics, and who is a high school senior, college freshman, or sophomore is eligible to apply for the scholarship.

In order to apply for the scholarship, you should first attend the American Physical Society Division of Physics Meetings Job Fair at DPP October 24-26, 2005; Adam's Mark Hotel; Denver, CO. Whether you are looking for a job or recruiting, (DPP) meeting is the place to be! The DPP Job Fair will provide job seekers and hiring managers with unsurpassed recruitment and networking opportunities. Last year, more than 30 companies, laboratories and universities met with 180 job seekers.

Job Seekers utilize the services to:

• Network with technical staff and human resource recruiters; Post your resume and search open positions; Interview qualified job seekers; Search resumes specific to the meeting.

The Job Fair is free of charge to all job seekers. There is a nominal fee for employers. The pre-registration deadline for both employers and job seekers is October 3, 2005.

For more information, please visit www.aps.org/jobs or contact Alis Brice at abr@aps.org or 301-209-1187.

PROPOSED APS BYLAWS REVISION

Regarding Unit Proposals for Outside Funding

FIRST VOTE APPROVED BY COUNCIL, APRIL 15, 2005

It is common for some APS units to provide student travel awards to attend conferences, and underwrite other outreach projects. Often funding proposals to outside resources are submitted to support these activities. Current wording in the APS Bylaws implies that all proposals for unit funding require Council approval. Background information included to limit Executive Board approval of unit proposals to those greater than $10,000 at the discretion of the Executive Officer and remove any requirement for Council approval of unit funding proposals. Proposals equal to or less than $10,000 will no longer require approval. This amendment is intended to more accurately reflect current practices in these situations.

ARTICLE V–FINANCES

4. Grants-in-Aid–A Division, Topical Group, Forum, Section, or Committee seeking grants-in-aid or contracts for the support of specific proposals of more than $10,000 shall submit such proposals to the Executive Officer for approval. The Executive Board shall consider unit requests for funding in support of specific proposals. The division, section, or committee shall provide all necessary documentation to support the proposal and any decision regarding funding proposals shall be within the discretion of the Executive Committee. APS divisions, sections, and committees must coordinate with the unit’s Executive Officer for approval of unit funding requests. The Executive Officer may, at the discretion of the Executive Board, grant approval for outside funding sources to any unit, except as otherwise specified by the Executive Board.

Recently Posted Reviews and Colloquia

Now Appearing in RMP

Recently Posted Reviews and Colloquia

You will find the following in the online edition of Reviews of Modern Physics at http://rmp.aps.org

Quantum information with continuous variables

-Samuel L. Braunstein and Peter van Loock

Quantum information theory often focuses on discrete states like those in qubits, but states with continuous variables such as the coherent electromagnetic field of lasers can also be used to encode quantum information. This review discusses the theory of quantum information and entanglement for continuous variables, with application to quantum optical systems. Recent experimental implementations include secure communication, teleportation of quantum states, and the demonstration of a quantum memory.

APS Seeks Two New Operating Officers: Treasurer and Editor-in-Chief

The American Physical Society (APS) is headed by a Senior Management Team that consists of three co-equal operating officers: the Editor-in-Chief (responsible for all scientific publications and for related activities, excluding marketing); the Treasurer (responsible for fiscal management and for publications marketing activities); and the Executive Officer (who is responsible for other remote and outreach-related activities of the Society). These three work together as a team to manage all aspects of the Society’s business. They report to the elected Presidential line and to the Council and its Executive Board of which they are statutory members.

In late 2006, two members of the current APS Senior Management Team will retire. The APS is searching for candidates to fill these two positions, specifically, Treasurer and Editor-in-Chief. If you have suggestions of good candidates who should be recruited for either of these positions, please send them to the Search Committee chair, Helen Quinn quinn@slac.stanford.edu.

Descriptions of the positions are as follows:

Treasurer—This officer is responsible for all aspects of APS fiscal management and publications marketing, and is a member of the three-person Senior Management Team (see above). Specific responsibilities include:

• Managing general APS finances: Formulating annual budgets for the Society, working with the Executive Officer and the Editor-in-Chief to ensure that program goals can be met within the budget plan; managing the financial reserves of the Society in accordance with policy set by Council; overseeing fiscal record keeping, adherence to budget, auditing, and compliance to all relevant laws.
• Management of all legal and insurance issues for the Society.
• Management of publications marketing and of production contracts: overseeing the marketing of APS publications and the journals’ contractual relationships with production vendors (working in concert with the Editor-in-Chief).
• Setting and implementing policies for conflict of interest and for consultation with the Executive Officer and the Editor-in-Chief.
• Reporting regularly to the Council and its Executive Board on fiscal and personnel issues.
• Overseeing the activities of the Director of Finance, Director of Human Resources, and the Associate Publisher/Director of Marketing.

This position is based at APS Headquarters in College Park MD. It requires an understanding of physics and the physics community and the ability to work collegially with the other members of the Senior Management Team to solve business problems. An advanced degree in physics or a closely related discipline is highly desirable. It is a full-time position, and requires significant travel. Appointment is for a five-year term, renewable by mutual agreement.

Editor-in-Chief—This officer is responsible for all aspects of APS scientific journals and for the role of APS in the future evolution of scientific communication and dissemination of physics. The person holding this position is one of the three-person Senior Management Team (see above). Specific responsibilities include:

• Planning and implementing plans to ensure that APS is an international leader in physics communication.
• Maintaining and improving the quality and usefulness of APS publications.
• Overseeing editorial functions and ethical issues for APS publications.
• Managing the APS Editorial Office of the Physical Reviews, Physical Review Letters, and Reviews of Modern Physics, with over 150 in-house staff members and many remote editors.
• Communicating APS concerns and policies on publications issues to diverse audiences.
• Working together with the Treasurer to set fiscal policies for publications consistent with the overall fiscal planning of the Society.
• Reporting regularly to the Council and its Executive Board on both current and future publications issues.
• Overseeing the activities of the Editorial Director, Director of Journal Information Systems, the Director of Journal Operations and the Director of Facilities Management.

This job is located at the APS Editorial Office in Ridge, New York (Eastern Long Island). It requires a PhD in physics or a closely related discipline and the ability to work collegially with the other members of the Senior Management Team to solve business problems. It is a full-time position, and requires significant travel. Appointment is for a five-year term, renewable by mutual agreement.

Both of these positions are co-equal operating officer positions with strong leadership/management skills, the ability and desire to work in a team enviroment, excellent written and verbal communications skills, professional demeanor, and the ability to deal effectively with both scientific and business professionals. Competitive salaries and outstanding benefits package offered. Visit our website at www.aps.org. Interviewing will begin in late fall, 2005. To apply, send cover letter including salary requirements, publication, resume, and contact information for professional references to Helen Quinn at quinn@slac.stanford.edu.
A critical issue for the future of the Society is the viability of APS publishing. While the fiscal health of APS we rely on the journals to break even, or even do a little better than that (since the membership dues do not support all the functions that members say in surveys they from investment of the reserve. We have built up a funding reserve. That is essential, since it protects the Society from devasta-
tion by fluctuations in income in the rapidly chang-
ing economics of professional publishing. (During my tenure in the presidential line outside activities, over which we had no control, and which we could not possibly have foreseen, caused fluctuations in journal income of over half a million dollars in both directions.) We use this reserve also as if it were an endowment. Some of the income comes from publishing. (We have now received more than 2 million dollars in the past two years, even as we have reduced our budget.)

The first goal of the journals, however, must be to support the dissemination of scientific informa-
tion as effectively and efficiently as possible. Our journals are highly regarded, not only for the strength of the science that is published there, but because we have moved, under our current Editor-in-Chief, Marty Blume, to a model which is fully electronic (with paper available for special processing and in the composition of print books). The Board now has a conscious pol-
icy on this, and sets an upper limit on budgeted withdrawals from reserves.

Meetings are another core activity of the Society. These meetings serve us well today! APS meetings fill that void. Only relatively recent-
ly in the history of APS did the Society reach this recognition. We are steadily building effectiveness and crediblity in Washington, but we need to continue to develop and expand this effort. Whether it is the personal visits we report at our major meetings, or the one-on-one visits to congressional or senatorial offices by members, lobbying is a central part of what we do.

Looking Back and Looking Forward for APS
By Helen Quinn

During my tenure as President I have worked hard to bring together people from all over the world to discuss the future of physics. These discussions have led to important changes in the way we do science.

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