

# CSWP Gazette

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

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## Letter from the Editor

*Cha-Mei Tang, Creatv MicroTech Inc., Potomac, MD*

Welcome to the Spring 2001 issue of the Gazette! As a member of the Committee on the Status of Women in Physics and guest editor for this issue, I invite you to read about the exciting activities planned for the APS Meetings in March (Seattle) and April (Washington, DC).

I am delighted to have the opportunity to report to you on the new Committee on Women in Plasma Physics (CWIPP), which was recently formed by the APS Division of Plasma Physics (DPP). More than a year ago, a letter was submitted to the DPP leadership that expressed concern about the number of women entering and remaining in the field of plasma physics. The letter described the difficulties faced by women scientists in achieving recognition, obtaining funding for their work, as well as in attaining leadership positions. The letter, signed by many women in plasma physics, clearly represented the concerns of a large and representative group.

In response, the Executive Committee of DPP formed an ad hoc committee consisting of Martin Lampe (Naval Research Laboratory and Vice-Chair of the DPP), Martin Peng (Oak Ridge National Laboratory) and Martha Redi (Princeton Plasma Physics Laboratory). After assembling statistics related to the involvement of women in plasma physics, the ad hoc committee presented its report in the spring of 2000. Out of a total membership of 2500 in the division, there are only 111 female members, a percentage slightly smaller than that of APS as a whole. The most alarming statistics are that there are only 7 women fellows compared with 450 male fellows in DPP, and only one woman fellow is currently active in plasma physics (as opposed to space and

astrophysics). DPP recognized that they were not only failing to attract significant numbers of women to our field, but not retaining them as well. In his Notes from the Chair, James Drake, former DPP Chair, commented:

*"The DPP must promote the recruitment, participation and advancement of women in plasma physics, and ensure that women are fairly represented both scientifically through invited talks and in activities and leadership positions as officers, executive committee members and committee chairs. The DPP should appoint a Standing Committee for Women in Plasma Physics, which will take the lead in defining and implementing these efforts, under the guidance and approval of the Chair and the Executive Committee."*

The ad hoc committee recommended that a standing Committee for Women in Plasma Physics be formed. By the end of summer 2000, CWIPP became a reality. Dr. Martha Redi is its first Chair.

I applaud the Officers of the DPP as well as the Executive Committee for their supportive actions in response to the women's concerns. I agree with James Drake when he said, "I suspect there are no easy solutions to the problem of attracting and retaining women in our field, but it is clear that we must make a commitment to do this."

## CSWP-Sponsored Activities at the 2001 APS March Meeting

*Alice White, Bell Laboratories - Lucent Technologies, Murray Hill, NJ*



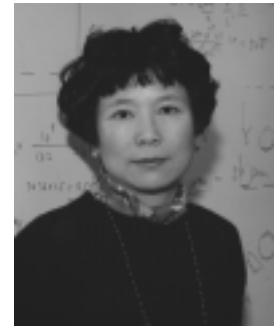
*Photo of Cherry Murray  
courtesy of Alice White*

CSWP is co-sponsoring an invited symposium on "Roles for Female Scientists at Start-Ups" with the Forum on Industrial and Applied Physics (FIAP) at the Annual APS March Meeting 2001 to be held in Seattle, Washington. The symposium, which is scheduled for Session E2 at 2:30 pm on Monday, March 12, promises to be very interesting. Several speakers

will share how they came to work at a start-up and their experiences in the start-up environment:

- Laura Smoliar, senior member of the technical staff at Silicon Light Machines and Chair Elect of FIAP co-organized the symposium. She will discuss the various positions that physicists hold behind the scenes in high tech start-ups.
- Lisa Dhar, until recently a member of the technical staff at Bell Laboratories, will talk about a new para-

*continued on page 5*



*Cha-Mei Tang*

The Editor for this issue is  
**Cha-Mei Tang**  
Creatv Micro-Tech, Inc.

**Managing Editor**  
Sue Otwell, APS Staff

*Members of the Committee*

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University of Maryland,  
College Park

**Barbara A. Jones**  
IBM Almaden Research Center

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**Dongqi Li**  
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American Physical Society

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American Physical Society

*AAPT Liaison*

**Patricia Allen**  
Appalachian State University

*Publication Information*

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## Variety of Events Scheduled at APS April Meeting

*Elizabeth J. Beise, Univ. of Maryland, College Park, MD*

CSWP continues its tradition of organizing a variety of events at the April APS Meeting which will be held this year in Washington, DC, April 28-May 1, 2001.

The CSWP and the Committee on Minorities are jointly sponsoring two invited sessions. The first session is entitled "Goals for the New Century: Plans for Increasing the Numbers of Under Represented Groups in Scientific Workforce Supported by DOE, NASA, NIST and NSF." Each speaker has held a leadership position in one of the four agencies that support much of the scientific research of the U.S. physics community. The speakers will discuss their personal views on how these agencies can address the growing need for a technically trained workforce, focusing on how to tap the potential of under-represented groups. This session will take place on Saturday, April 28 from 2:30-5:00 pm, just prior to the APS Awards Presentation and Welcome Reception. The session will be chaired by APS President James Langer, and the scheduled speakers will be Prof. Mildred Dresselhaus, MIT professor and presently Director of the Office of Science at DOE, Dr. Daniel Goldin, presently Director of NASA, Dr. Katharine Gebbie, Director of the NIST Physics Laboratory, and Dr. Joe Dehmer, Director of the Physics Division of the National Science Foundation.

On Sunday evening, April 29, CSWP will co-host a reception with the Committee on Minorities from 5:30-7:30 p.m. in the Westin Hotel. Committee newsletters, colloquium speakers lists and other publications will be available.

On Sunday morning, April 29, a second joint COM/CSWP session will offer selected topics on efforts to improve the participation of women and minorities in sci-

entific research, from education and training to involvement in the international science community. The session will be chaired by COM Chair Lawrence Norris, and lists the following speakers:

**Dr. Judy Franz, APS Executive Officer:**

*"Women's Participation in Physics Internationally: the IUPAP Working Group on Women"*

**Dr. Kimberly S. Budil, Lawrence Livermore National Laboratory:**

*"The CAWMSET Report: Summary and Action"*

**Dr. Apriel Hodari, Legislative Assistant, U.S. House of Representatives:**

*"The Effects of Ethnicity and Gender on Physics Learning"*

**John Slaughter, President and CEO, NACME:**

*"Real Answers in the Recruitment of Minorities in Science and Engineering"*

On Monday, April 30, CSWP will hold a networking breakfast. The event is open to all (men and women) with an interest in women in physics and will feature a short talk by Natalie Roe of the Lawrence Berkeley National Laboratory, and will offer ample time for networking afterwards. The breakfast will be held from 7:30 – 9:30 a.m. in the Renaissance Hotel, early enough for those of you from the Washington, DC area to attend and still get to work! Costs and other details are available on the CSWP web site at <http://www.aps.org/educ/cswp/index.html>. You need not be registered for the APS meeting to attend.

## COM and CSWP Host Lunch Reception

The American Physical Society's Committee on Minorities (COM) and the Committee on the Status of Women in Physics (CSWP) jointly hosted a lunch reception at the Fall meeting of the APS Division of Nuclear Physics. Funding for the luncheon was provided by a generous grant from Southeastern Universities Research Association (SURA). Over 80 people attended the luncheon, including a large number of students who took the opportunity to meet with and ask questions of the physicists at the lunch. Our thanks to Tom Clark who took photos of the event!



*Bunny Clark and Mary Alberg*



*Betsy Beise, CSWP member, and Lawrence Norris, chair of COM*

## Russian Women Scientists in St. Petersburg Hold First Conference

By Nellie Didenko, ([didenko@spbrc.nw.ru](mailto:didenko@spbrc.nw.ru)), Renata Vitman, and Galina Merkulova, Co-chairs of SPWAS

St. Petersburg Women's Association in Science (SPWAS) is a young non-governmental organization which was established in August 1999 in St. Petersburg with the help of the St. Petersburg Research Centre of the Russian Academy of Science (RAS) and the A.F. Ioffe Physico-Technical Institute of the RAS. Members include professional women scientists and engineers from St. Petersburg research institutes of the RAS and applied research institutions.

The goals of SPWAS are to enhance the status of women scientists in St. Petersburg, to assist them in improving their social activities, and to involve them in international scientific collaboration. Additional information about SPWAS and their activities can be found on-line at <http://www.nw.ru/SPWAS/>.

SPWAS held its first conference on "The Role of Women in Science and Humanities: Challenges and Perspectives of the 21<sup>st</sup> Century" on June 30-July 2, 2000. The goals of the conference were to understand the scope of different problems of women scientists in Russia and in the world as well as to enhance the status of women scientists in St. Petersburg. The conference covered various aspects of statistical data, the careers of women and their roles in post-communist Russia and other countries of Eastern Europe, as well as their specific roles in science and academia in the USA and Europe. Different questions regarding the pros and cons of globalization, as well as some perilous trends in the world's social development were discussed.

The 164 participants included an academician, two corresponding members of the Russian Academy of Science, 18 professors, 23 doctors of science, and 59 PhDs, as well as university students and even school teachers. The famous Russian physicist Prof. Iya Ipatova (A. F. Ioffe Physico-Technical Institute of the RAS) was the chairperson of the conference. Participants came from different regions of Russia (middle Russia, Ural, Siberia), as well

as from the United States, Germany, United Kingdom, Australia, Sweden, and newly independent states. The majority of them were women, but remarkably about 15 men took an active part in this conference.

The conference attracted the attention of the scientific community of St. Petersburg. At the opening of the conference, its participants were greeted by Mr. Thomas Leary, US Consul for Press and Culture.

Sessions and roundtable discussions were conducted on a variety of topics on women's role in the world of science and the problems and barriers faced by women scientists. Teachers from St. Petersburg schools took part in a heated debate on the education of gifted girls. School education in Russia gives a secondary role to women, first at school and later at the university level and at their jobs.

The analysis of the reports shows that more and more women are taking part in political, social, educational and scientific activities. But, despite the fact that at least 50% of first degree students in most of the countries in the European Union are female, women tend to disappear from academic life before taking up qualified posts. Only about 7% of women have achieved high positions in science. A coherent approach should be developed to promote research by, for, and on women in their professional careers.

The conference was supported by the St. Petersburg Research Centre of the RAS and the St. Petersburg Association of Scientists and Scholars. Financial support was provided by the Russian Foundation for Basic Research and St. Petersburg Research Centre of the RAS.

We believe that every effort must be made in order to achieve more opportunities for women in research, so that Russia does not lose the contributions that women can make in its workforce.

...despite the fact that at least 50% of first degree students in most of the countries in the European Union are female, women tend to disappear from academic life before taking up qualified posts.

### Order your FREE copy of the "Celebrate Women in Physics" poster!

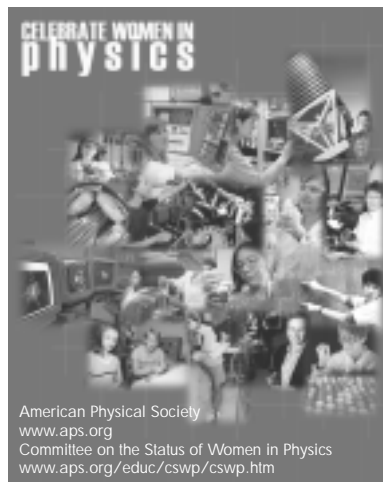
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Mail to: Sue Otwell • APS • One Physics Ellipse • College Park, MD 20740

# APS Names Women Fellows for 2000

## Elina Aprile

*Columbia University*

For her pioneering contributions to gamma-ray instrumentation for astrophysics, particularly her successful development of a liquid xenon time projection chamber as an innovative Compton Telescope.

## Meigan Charlotte Aronson

*University of Michigan*

For investigation of collective phenomena in strongly correlated electron systems using neutron scattering and high pressure techniques.

## Kim K. Baldridge

*University of California - San Diego*

For her development and application of methods for quantum calculations of molecular structure and reactivity, including her studies of aromaticity which continue the tradition of Maria Goeppert-Mayer.

## Beverly Karplus Hartline

*Los Alamos National Laboratory*

For creative leadership and drive to advance physics and other science education at all levels from kindergarten to graduate school, including outreach to teachers and the general public.

## Kay Kinoshita

*University of Cincinnati*

For innovative contributions to the study of b-quarks and for leadership in accelerator searches for magnetic monopoles.

## Martha Krebs

*Institute for Defense Analysis*

For her contributions to the vitality and quality of the science research and development programs supported by the Department of Energy for the benefit of the nation.

## Zaida Ann Luthey-Schulten

*University of Illinois*

For her contributions to the field of protein folding including elucidating its basic mechanism and developing optimized energy functions for protein structure prediction.

## M. Cristina Marchetti

*Syracuse University*

For contributions to the theory of the dynamics of vortex matter and charge-density waves.

## Ann E. Orel

*University of California-Davis*

For pioneering the understanding and development of theoretical methods for studying excitation, ionization and dissociation of polyatomic molecules.

## Linda Elizabeth Reichl

*University of Texas-Austin*

For her original contributions to the field of quantum chaos.

## Marlene Rosenberg

*University of California-San Diego*

For pioneering contributions to the theory of dusty plasmas, especially related to strong coupling effects and the role of instabilities.

## Junko Shigemitsu

*The Ohio State University*

For her contributions to determining properties of the Standard Model using the methods of Lattice Gauge Theory.

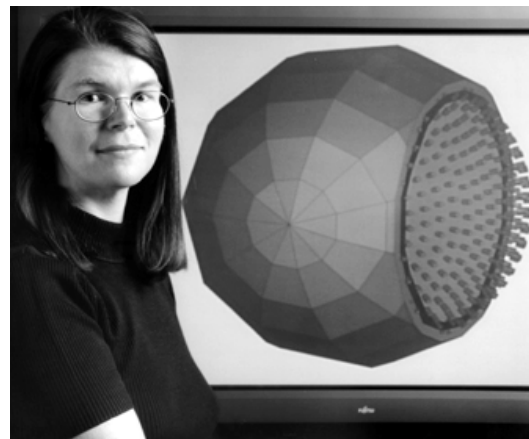
## Maria C. Tamargo

*CCNY-CUNY*

For significant original contributions to the development and understanding of the growth and properties of novel semiconductor materials and heterostructures, in particular, in the field of wide bandgap II-VI compounds.

## 2001 Maria Goeppert Mayer Award to Janet Conrad

Janet M. Conrad of Columbia University is the recipient of the 2001 Maria Goeppert Mayer (MGM) Award for her leadership in experimental neutrino physics. She is recognized for initiating and leading the NuTeV decay channel experiment and the Mini-BooNE neutrino oscillations experiment, which are noted for their timeliness and significance in resolving frontier issues in neutrino physics. The MGM Award's purpose is to recognize and enhance outstanding achievement by a woman physicist in the early years of her career, and to provide opportunities for her to present these achievements to others through public lectures in the spirit of Maria Goeppert Mayer. Janet Conrad was recently profiled on PhysicsCentral, the brand new APS web site targeted at the general public and designed to bring the importance and excitement of physics to everyone. See <http://www.physicscentral.com/people/people-01-1.html>





## Women and Minorities in Science and Technology: Morella Commission Publishes Report

By Sue Otwell, APS Staff

“Unless our scientific workplace reflects our diversity, we are not working to our potential as a nation,” affirms Maryland Congresswoman Constance Morella in the final report of the Commission on the Advancement of Women and Minorities in Science, Engineering and Technology Development (CAWMSET). “*Land of Plenty: Diversity as America’s Competitive Edge in Science, Engineering and Technology*” was published in September 2000. The report examines barriers to women, underrepresented minorities, and persons with disabilities and makes recommendations in the areas of education, professional life, public image, and nationwide accountability.

The bipartisan commission was established by Congress in October 1998 through legislation developed and sponsored by Congresswoman Morella. Members were appointed by President Clinton, Members of Congress and Governors, and were drawn mainly from academia and industry. An Inter-Agency Steering Committee included senior officials from federal science and technology agencies.

The commission spent over a year examining the barriers that exist for women, underrepresented minorities, and persons with disabilities in the field of science and technology. More than 100 experts, educators, corporate executives, government officials and nonprofit sector leaders – including APS Executive Officer, Judy Franz – presented testimonies during meetings held in July and October 1999.

The report reaffirms the nation’s commitment to full participation for all citizens in science, engineering and technology education and in the workforce. It makes recommendations for systemic change in the belief that “if the nation is willing to make the investment called for... our workforce will be strengthened for the foreseeable future.” To this end, the report lays out a set of recommendations aimed at systemic change in science and technology at the national level to remove barriers that exist for women, minorities, and persons with disabilities. The complete report is available on-line at <http://www.nsf.gov/od/cawmset/>.

The report examines barriers to women, underrepresented minorities, and persons with disabilities...

### Activities at the 2001 APS March Meeting, continued

digm at Bell Labs – spinning out projects that are not directly related to Bell Labs’ core business.

- Hilary Lackritz, principal scientist at Aclara BioSciences, will contrast the high-tech start-up experience with the academic and consulting worlds, with a focus on rewards and risks at start-ups.
- Finally, Jian Tian, process development manager for SpectraLane, will tell us about the whirlwind world of optical networking and share some advice about preparing for the start-up environment.

The annual CSWP/FIAP Networking Breakfast for women (and men) will be held from 7:30-9:30 am on

Tuesday, March 13 at the Westin Hotel. This schedule accommodates registrants attending morning sessions, as well as those participants not attending the meeting to go to work afterwards. This breakfast is open to all (men and women) with an interest in issues pertaining to women in physics. Students are most welcome to attend. The agenda will feature a talk by Cherry Murray, Physical Sciences Research Senior VP at Bell Laboratories (Lucent Technologies), on “What’s It Like to Be an Executive? Life in the Fast Lane.” Her talk will be followed by discussion and networking. It is not necessary to register for the APS meeting in order to attend this breakfast; however it is necessary to sign up for the breakfast in advance. Details are posted on the CSWP web site at <http://www.aps.org/edu/cswp/index.html> as well as on the APS Meetings web site.

Have you moved? Changed jobs? Changed fields? **Take the time now to update your name/address/qualifications on the Roster of Women in Physics** (this database also serves as the Gazette mailing list). See pages 13-14.

Trying to reach more women and minority candidates for job openings in your department or institution? Consider a search of the **APS Roster of Women and Minorities in Physics**. (see [www.aps.org/educ/roster.html](http://www.aps.org/educ/roster.html))



*Women's Studies Quarterly,*  
**Building Inclusive Science: Connecting Women's Studies  
 and Women in Science and Engineering,**  
 Vol. 28 (1 & 2) Spring/Summer 2000

Reviewed by Greer M. Richardson, Ph.D., LaSalle University, Philadelphia PA

Rosser is the guest editor of *Building Inclusive Science: Connecting Women's Studies and Women in Science and Engineering*, a double issue of *Women's Studies Quarterly*. Rosser describes this text best when she says it "signifies the breadth and complexity of scholarship that has emerged during the past 25 years." (p. 6). This scholarship is represented in a series of position papers, research articles, course syllabi and book reviews. Although each submission speaks to the presence of women in science the contributors address the topic from a variety of perspectives. Some present powerful arguments for how women have been largely excluded from full participation in the sciences which in turn has caused "flaws, distortions, biases in scientific research" (p. 7). Others look at how adjustments to science pedagogy in the future could eliminate the common problems that cross scientific research, practice, and teaching. In other words, the aggregate voices in this issue not only identify the problems women face as they pursue science, they also offer the reader suggestions for alternative modes of thought and practice that would serve to include women in science, rather than exclude women from science.

The issue is laid out much like any other journal. It begins with an editorial that surveys the multitude of themes, including: History of Women in Science, Current Status of Women Within the Professions, Inclusion and Exclusion: Gender Differences and Diversity Among Women, Revealing Male Subtexts and Building Alternative Models, Theory into Practice, and Feminist Science Studies in the Daily Lives of Women Scientists. As part of the physical layout of the journal, archival photos of male and female students, faculty and professionals are included at the start of each new section of the text.

Paula Rayman and Julie Stewart are the first voices featured in the journal. Like others that follow they comment on why some women opt out of science. Barbara Whitten and Juan Burciaga offer the useful metaphor of a "leaky pipeline" to describe the attrition of women. This loss of women from the science pipeline is attributed to the masculine nature of science or as another contributor Robin Burnes suggests, to the very nature of "how science is conducted". Lack of institutional support for women is another major contributor. Amy Bix writes about the problems encountered by women at the Massachusetts Institute of Technology (MIT). She remarks that historically women have had to struggle first to belong, then to be respected, and finally to be represented at all levels of the institution. Bix closes her report with statistics that reflect the marginalization that females at MIT still face. Her comments remind readers that in the year 2000 we still have a long way to go to create an inclusive environment at MIT and elsewhere.

Linda Grant, Ivy Kennelly and Kathryn Ward look at institutional marginalization from the personal struggles of women scientists who have made life-altering decisions due to the male-oriented demands of the careers that they have chosen. In her work with females in Ph.D. programs, Mary Fox also highlights the fact that the very structure of programs within institutions can either support or hinder the participation of women in those programs.

This issue not only brings to light the injustices women face in the field of science, it also offers a myriad of solutions to the problems at hand. Sylvia Benckert and Else-Marie Staberg echo the sentiment of several contributors when they suggest that we should avoid putting men at the center of the debates about how science is done. As is the case with many of our commentary about marginalization we hold up white males as our standard. Instead Rayman and Steward suggest that women should enter "when and where they choose" (p. 20). In other words, *women* should define how their science is done.

The section on Theory into Practice also offered solutions. Authors Angela Barton and Margery Osborne report on a project in which students researched and reflected upon the oral histories of scientists. These histories were used as a tool to help female students change their conceptions about science. Other suggestions for praxis were offered in the direction of joining women's studies with non-traditional areas of science such as physics, engineering and natural science.

The intersection of the feminist perspective and science studies is the topic of the final section of the journal. Upon reading this section, I, an African American female with a doctorate in Educational Psychology who teaches in a department of education at private a Christian Brother university, felt a bit estranged from the topic. I say this because the professional issue that I usually face concerns me being an African American, rather than a woman. However the research findings reported by Angela Ginorio, Terry Marshall and Lisa Breckenridge alleviated any feeling of estrangement. When female scientists were asked to identify themselves as feminist, only 25% of females scientists interviewed could do so. Also when asked to identify those issues reportedly defined as feminist, the participants named concerns held by all women scientists. The findings were a perfect example of how women in science can not be painted with broad-brush strokes.

The authors of the aforementioned report made mention of a situation that is telling. They noted the absence of women of color and disabled women in their sample of participants. They sited the poor representation of women

# The Door in the Dream - Conversations With Eminent Women in Science

by Elga Wasserman (National Academy Press, Washington, DC, 2000)

Reviewed by Sabine Jeschonnek, Jefferson Lab, Newport News, VA

The core of this book consists of several chapters containing portraits of women scientists, in chronological order starting with “Finding a Niche: Women Born before 1920”, and arriving at “Through Open Doors: Women Born after 1940”. All women are members of the National Academy of Sciences. Each year, 60 new members are elected, and in 1996, there were 86 women among 1600 natural scientists. Elga Wasserman wrote to all of them, asking three questions: To what factors do you attribute your success in science? In your opinion, was your career affected by the fact that you are a woman, and if so, how? If you had money and power, what politics would you implement to facilitate science careers for women? So, as the author herself states, these women are very talented and successful individuals, and their experiences are not necessarily typical. However, they clearly demonstrate that women can be successful in science, and due to their large visibility, they have influence and are ideal role models.

Apart from these portraits, the book contains three introductory chapters and four closing chapters, which analyze common themes in the portraits of the scientists and raise several interesting questions relevant to women in science. The first chapters give a good description of how academia works and how one becomes a research scientist, which makes the topic of the book much more accessible to readers without scientific or academic background (e.g. high school students pondering a career in science). They also contain some statistical data on women in science. The third chapter takes a look at stereotypes and expectations women scientists face, and overt and subtle forms of discrimination. The notes to these chapters provide references to books, reports, and articles in scientific journals, so that the reader can further explore interesting points. Some of the referenced material is even available on the web.

The 26 narrative profiles included in the book provide interesting insights in the careers and lives of the sci-

tists. The physicists included in this book are solid state physicist Esther M. Conwell, astronomer Vera C. Rubin, the new APS vice president, Myriam P. Sarachik, and particle theorist Mary K. Gaillard. The portraits consist of short summaries of the careers, honors, and private lives of the women, photos, and parts of interviews. The interviews are intriguing and exciting to read. The interviewees were very open and forthright, and they share many personal, touching, humorous, and serious experiences and stories. It is very interesting to read the sometimes-contrasting experiences and opinions of the Academy members, and to see how the situation of women in science has changed over the years.

The last four chapters are dedicated to looking at common threads, which emerged from the interviews: parental and family influences, how Academy members “got hooked” on science, the influence of mentors in all guises, and cultural hurdles. One conclusion is that in order to succeed, women need persistence and passion for science. The issue of balancing family life with a career was identified as a main concern by most of the surveyed Scientists, independent of their own family situation. A whole chapter is devoted to these issues. Another chapter, “Righting the Balance” deals with suggestions on how to improve the situation for women.

I really enjoyed this book, both the profiles of the scientists and the insightful discussion of many issues important to women in science. The book contains a good mix of individual stories and discussions, as well as an interesting historic perspective. A definite strength of this book is that it provides the reader with references to research and statistics on the subject, so that one can take off and learn about certain issues in a more quantitative way. This is a nice supplement to the individual points of view presented, especially the women in this book are not a representative average.

I think this book is a great and inspiring read for everyone.

## Building Inclusive Science, continued

of color and disabled women in the sciences as a reason for the exclusion. Such is the case with this volume of text. Ironically, this *inclusive* issue of women in science has only one article, authored by Carolyn Tucker that deals with the intersection of race, gender and science.

In all, the journal offered this reader a broad look at issues confronting women from past to present. I applaud the

contributors of this issue for the courage to do the “finger pointing” and “problem solving” necessary to make change possible.

### NOTE:

*The opinions expressed by the reviewer and by the authors in the Women’s Studies Quarterly are not necessarily those of the APS or of CSWP.*

## Review

... women can be successful in science, and due to their large visibility, they have influence and are ideal role models.

# The American Physical Society 2000-2001 Travel Grants for Women Speakers Program

The APS Committee on the Status of Women in Physics (CSWP) is pleased to announce that the "Travel Grants for Women Speakers" Program is entering its seventh year. This program is designed to increase the recognition of women physicists.



**Purpose** The program is intended to expand the opportunity for physics departments to invite women colloquium/seminar speakers who can serve as role models for women undergraduates, graduate students and faculty. The program also recognizes the scientific accomplishments and contributions of these women physicists.

**Grant** The program will reimburse U.S. colleges and universities for up to \$500 for travel expenses for one of two women colloquium/seminar speakers invited during the 2000-2001 academic year.

**Qualifications** All physics and/or science departments in the United States are encouraged to apply. Canadian and Mexican colleges and universities are also eligible, provided that the speakers they invite are currently employed by U.S. institutions. Invited women speakers should be physicists or in a closely related field, such as astronomy. Speakers should be currently in the U.S. The APS maintains the Women Speakers List which is available online ([www.aps.org/educ/cswp/index.html](http://www.aps.org/educ/cswp/index.html)) or from the APS. However, selection of the speaker need not be limited to this list. Neither of the two speakers may be a faculty member of the host institution.

**Guidelines** Reimbursement is for travel and lodging expenses only. Honoraria or extraneous expenses at the colloquium itself, such as refreshments, will not be reimbursed.

**Application** The Travel Grants for Women Speakers Application Form ([www.aps.org/educ/cswp/index.html](http://www.aps.org/educ/cswp/index.html)) should be submitted to APS identifying the institution, the names of the two speakers to be invited and the possible dates of their talks. Please note that funds for the program are limited. The Travel Grants for Women Speakers Application Form should be submitted as early as possible, even if speakers and dates are tentative, or if the speakers are scheduled for the spring semester. The application form will be reviewed by APS, and the institutions will be notified of approval or rejection of their application within two weeks. Institutions whose applications have been approved will receive a Travel and Expense Report Form to submit for reimbursement.

## For Further Information:

*Travel Grants for Women Speakers Program*  
Attn: Arlene Modeste Knowles  
The American Physical Society  
One Physics Ellipse • College Park, MD 20740-3844  
Tel: (301) 209-3232 • Fax: (301) 209-0865 • Email: [travelgrant@aps.org](mailto:travelgrant@aps.org)

See last page for application form.

## AMERICAN PHYSICAL SOCIETY

2000-2001

WOMEN  
*Speakers List*

Colloquium Talks by Women Physicists

The 2000-2001 Women Speakers List (WSL) of Women in Physics (pictured to the left) is published by The American Physical Society. This list, compiled by the Committee on the Status of Women in Physics, contains the names of over 200 women physicists who are willing to give colloquium or seminar talks. The WSL serves as a resource for middle school, high school, university and general audiences. Information on the speakers is listed by state and by field for easy reference. To receive your free copy, please complete this form and return it to APS, or access the forms on-line ([www.aps.org/educ/cswp/index.html](http://www.aps.org/educ/cswp/index.html).)

Name: \_\_\_\_\_

Institution: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_





**Current Employment Information** (28 Characters per line)

Employer: \_\_\_\_\_  
 Department/Division: \_\_\_\_\_  
 Position: \_\_\_\_\_

**Professional Activity Information**

FIELD OF PHYSICS		CURRENT WORK STATUS (Check One)	TYPE OF WORK ACTIVITY
<b>Current Interest</b> (check up to 4 in each column)	<b>Highest Degree</b>		Please check four numbers from the list below of the activities in which you engage most frequently.
1 ___	1 ___	1 ___ Full-time Studies	1 ___ Basic Research
2 ___	2 ___	2 ___ Part-time Studies	2 ___ Applied Research
3 ___	3 ___	3 ___ Part-time Studies/Employment	3 ___ Development and/or Design
4 ___	4 ___	4 ___ Post Doc./Res. Assoc.	4 ___ Engineering
5 ___	5 ___	5 ___ Teaching/Precollege	5 ___ Manufacturing
6 ___	6 ___	6 ___ Faculty, tenured	6 ___ Technical Sales
7 ___	7 ___	7 ___ Faculty, nontenured	7 ___ Administration/Management
8 ___	8 ___	8 ___ Long-term/Permanent Employee	8 ___ Writing/Editing
9 ___	9 ___	9 ___ Inactive/Unemployed	9 ___ Teaching - Undergraduate
10 ___	10 ___	10 ___ Retired	10 ___ Teaching - Graduate
11 ___	11 ___	11 ___ Self-employed	11 ___ Teaching - Secondary School
12 ___	12 ___	12 ___ Other (please explain)	12 ___ Committees/Professional Org.
		_____	13 ___ Proposal Preparation
			14 ___ Other (please specify)
			_____
			_____
		<b>TYPE OF WORKPLACE FOR CURRENT OR LAST WORK</b>	<b>DEGREE TYPE (Highest)</b>
		1 ___ University	1 ___ Theoretical
		2 ___ College - 4 year	2 ___ Experimental
		3 ___ College - 2 year	3 ___ Both
		4 ___ Secondary School	4 ___ Other (please explain)
		5 ___ Government	_____
		6 ___ National Lab	_____
		7 ___ Industry	
		8 ___ Non-Profit Institution	
		9 ___ Consultant	
		10 ___ Other (Please explain)	
		_____	
		_____	
13 ___	13 ___	Astronomy & Astrophysics	
14 ___	14 ___	Acoustics	
15 ___	15 ___	Atomic & Molecular Physics	
16 ___	16 ___	Biophysics	
17 ___	17 ___	Chemical Physics	
18 ___	18 ___	Education	
19 ___	19 ___	Electromagnetism	
20 ___	20 ___	Electronics	
21 ___	21 ___	Elementary Particles & Fields	
22 ___	22 ___	Geophysics	
23 ___	23 ___	High Polymer Physics	
24 ___	24 ___	Low Temperature Physics	
25 ___	25 ___	Mathematical Physics	
26 ___	26 ___	Mechanics	
27 ___	27 ___	Medical Physics	
28 ___	28 ___	Nuclear Physics	
29 ___	29 ___	Optics	
30 ___	30 ___	Plasma Physics	
31 ___	31 ___	Physics of Fluids	
32 ___	32 ___	Thermal Physics	
33 ___	33 ___	Solid State Physics	
34 ___	34 ___	General Physics	
35 ___	35 ___	Condensed Matter Physics	
36 ___	36 ___	Space Physics	
37 ___	37 ___	Computational Physics	
38 ___	38 ___	Accelerator Physics	
39 ___	39 ___	Superconductivity	
40 ___	40 ___	Surface Science	
41 ___	41 ___	Non-Physics	
42 ___	42 ___	Quantum Electronics	
43 ___	43 ___	Other (please specify)	
44 ___	44 ___	_____	

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# 2000-2001 TRAVEL GRANTS FOR WOMEN SPEAKERS

## ◆ APPLICATION FORM ◆

This form is also available on the Internet at [www.aps.org/educ/cslwip.html](http://www.aps.org/educ/cslwip.html)

This form must be filled out and approval received from the APS in order to be eligible for up to \$500 travel reimbursement. Please note that submitting this application form does not guarantee reimbursement. You will be notified within two weeks of receipt of this application whether or not it has been approved.

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**ADDRESS:** \_\_\_\_\_

**APPLICATION PREPARED BY (VERY IMPORTANT):**

**NAME:** \_\_\_\_\_ **TITLE:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_ **FAX:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_

Please list information on the speakers below. If speakers, dates or titles of talks are tentative, please indicate.

**DATE OF COLLOQUIUM:** \_\_\_\_\_

**SPEAKER'S NAME:** \_\_\_\_\_

**HOME INSTITUTION:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_ **FAX:** \_\_\_\_\_ **EMAIL:** \_\_\_\_\_

**TITLE OF TALK:** \_\_\_\_\_

**DATE OF COLLOQUIUM:** \_\_\_\_\_

**SPEAKER'S NAME:** \_\_\_\_\_

**HOME INSTITUTION:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_ **FAX:** \_\_\_\_\_ **EMAIL:** \_\_\_\_\_

**TITLE OF TALK:** \_\_\_\_\_

Please return this form to:

Arlene Modeste Knowles, Travel Grants for Women Speakers Program

The American Physical Society

One Physics Ellipse

College Park, MD 20740-3844

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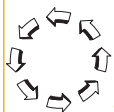


AMERICAN PHYSICAL SOCIETY

*Committee on the Status of Women in Physics*

One Physics Ellipse

College Park, MD 20740-3844



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