

CSWP Gazette

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

INSIDE

Articles

- CSWP Sponsors Site Visits Sessions 1
- APS Centenary: A Call for Volunteers 3
- Report on The Women, Gender, & Science Conference 3
- First Annual Networking Breakfast for Women Physicists in Industry 4
- Aspen Focal Week on Women in Physics 6
- Switching Fields in Physics: Job Hunting Strategies 9
- Report on APS Fellows 11
- Luise Meyer Schutzmeister Award to Jun Pan 14
- Letter From the Editor*
Sheila Tobias 2
- Preview*
Biography of Lise Meitner 12
- Review*
Professing Feminism: Cautionary Tales from the Strange World of Women's Studies 13
- Forms*
15
- Announcements*
19
- Special Pullout Section*
Funding Resources for Women in Physics insert

CSWP Sponsors Site Visits Sessions

by Tara McLoughlin, APS

At both the March and April APS Meetings, the CSWP sponsored well-attended sessions on the NSF-sponsored "Improving the Climate for Women in Physics" site visit program. This APS/AAPT program brought teams of women physicists to 15 research universities to explore the climate for women in these departments. The session panelists, Prof. Mildred Dresselhaus (MIT), Dr. Judy Franz (APS) and Prof. Bunny Clark (The Ohio State University) gave an overview of the program and initiated an open forum discussion. The sessions were organized by CSWP and the Forum on Physics and Society and were chaired by Dr. Beverly Hartline of CEBAF.

Prof. Mildred Dresselhaus began the session with an overview of the history of the project, and a review of some of the findings of the national survey that the team developed in cooperation with AIP statistics department. She began by outlining the situation for women in physics over the last 40 years, showing viewgraphs of the percentages of women Ph.D.'s in physics as a whole, the number of women physics faculty, and comparison between the U.S. and other countries. She stated that the progress of women has been encouraging, but more needs to be done to ensure gender equity in physics.

The idea for the site visits began in 1990 during an APS/AAPT sponsored meeting of physics department chairs. The chairs challenged the AAPT and APS to help them formulate ways to increase the number of women and minorities in physics. The women's committees of both of these organizations responded to the challenge by putting together an intervention program that consisted of the 15 site visits as well as a national survey of 1,955 physics graduate students and 905 undergraduates carried out by AIP.

Prof. Dresselhaus showed a number of viewgraphs from the survey, which showed the data separated into four groups of respondents: male and female students, and American and international students. She discussed differences in the groups' answers to questions about department climate, advisors, other students, study groups, curriculum, reasons for discouragement, and confidence levels. Said Dresselhaus, "One of the major overriding things that we found in the survey was that from 1990-1994...the differences between men and women were really rather small. If we had done the survey 25 years ago, the numbers, we suspect, would have come out quite differently."

Then Dr. Judy Franz gave an overview of the teams' one-day itinerary, and summarized the teams' interactions with the graduate and undergraduate students. The visiting teams met with the chair, administrators, women faculty, women graduate students, women undergraduates, advisors, research directors, and concerned faculty. Said Franz, "We always treated individual comments confidentially. The number of women faculty in physics departments is quite small, and thus sometimes there was little that we could share back with the department. We found that the group that we learned the most from that could be shared with the department was almost always the women graduate students. They interact with a wide variety of people in the department and there was a sufficient number of them that one could form more general conclusions. Since the undergraduate students have only been in one place, they have no standard of comparison, whereas the graduate students could use their undergraduate school to make useful comparisons. Not only that, but the graduate students LIVE in the department, and the undergraduates only spend a smaller portion of their time there."

contd on pg. 5

The Editor for this issue is

Sheila Tobias

Managing Editor

Tara McLoughlin

Production and Design

Elizabeth Buchan-Higgins
and **Adrienne Mosley**

Members of the Committee

Gerard Crawley

Michigan State University

Charlotte Elster

Ohio University

Katharine Gebbie

National Institute of
Standards and Technology

Howard Georgi

Harvard University

Beverly Hartline

(Chair 1994)

Continuous Electron Beam
Accelerator Facility

Donna Hurley

GE Corp. R&D

Kenneth Krane

Oregon State University

Laurie McNeil

University of North Carolina,
Chapel Hill

Sheila Tobias

Author and Educator
Tucson, AZ

APS Liaisons

Ramon E. Lopez

University of Maryland
The American Physical Society

Tara McLoughlin

The American Physical Society

AAPT Liaison

Patricia Allen

Appalachian State University

Publication Information

The **CSWP GAZETTE**, a newsletter of The American Physical Society Committee on the Status of Women in Physics (CSWP), is mailed free of charge to all those listed on the "Roster of Women in Physics," all U.S. physics department chairs, and others upon request. Because editorial responsibility rotates among CSWP members, please address all correspondence to: **CSWP Gazette**, The American Physical Society, One Physics Ellipse, College Park, MD 20740-3844 or email to: tara@aps.org

Editorial Board

Sheila Tobias, Author and Educator, Tucson, AZ

In this issue we bring you something old (though not so old): an article on the Aspen Focal Week on Women in Physics; something new: a preview of a major scientific biography of physicist Lise Meitner by Ruth Sime; something borrowed: a list of sources and resources for grants and networking available to women in science; and something blue, a useful if somewhat negative assessment of women's studies as it has evolved in recent years, the book *Professing Feminism: Cautionary Tales from the Strange World of Women's Studies* (New York: Basic Books, 1994) by historian and philosopher of science Noretta Koertge and literary scholar Daphne Patai, reviewed in this issue.

I first came across a reference to *Professing Feminism* when I read in the *Chronicle of Higher Education* a back-page piece by one of the authors. In her "Point of View," (Sept. 14, 1994) Noretta Koertge faulted feminist academics for "undermining the epistemological authority of science and making it subservient to their own political agenda." It is one thing, she wrote, to break down the barriers to women's advancement in science; it is quite another to try to "change science to fit women's special talents."

Within the month, I came across another provocative piece, again in *The Chronicle* — this time by Norman Levitt and Paul R. Gross and based on their book *Higher Superstition: The Academic Left and Its Quarrels with Science* (Baltimore: The Johns Hopkins Press, 1994). This time, the entire Academic Left in its "postmodern" thinking is blamed for "science-bashing."

Science has usually been considered "value-free," its authority rooted in rigor and experimentation, even though scientists have frequently taken political positions on the uses to which science is put (e.g. the physics community's critique of President Reagan's "star wars" technology) and on science policy more generally. But recent criticism goes far beyond the "uses of science" into its very innards.

The absence of women from the modern sciences, so the argument goes, from its origins in the seventeenth century, has given rise to "masculinist distortions in the scientific enterprise itself" according to many of the contributors to a collection of feminism criticism called *Sex and Scientific Inquiry* (Sandra Harding and Jean F. O'Barr eds, Chicago: University of Chicago Press, 1987). Physicist turned science historian Evelyn Fox Keller who, in her study of the reception by the science community to Barbara McLintock's

work in biology in some ways provided empirical evidence for that assertion, now recognizes that "the lens of feminist politics" creates for women scientists a potential dilemma.

"Is there a conflict between our commitment to feminism and our commitment to science?" she asks provocatively in her article in that collection called "Feminism and Science." And if so, what is the way out?



Keller advances the view that attention to the whole range of feminist criticism of science can be productive for women scientists and for science itself so long as the scientist's critical eye never wavers from "critical self-reflection." Even though the various attacks on the rational and empirical underpinnings of science may be jarring for women trained in that tradition, it is important — I agree — that women scientists become familiar with that criticism. *Sex and Scientific Inquiry* is a good place to start; Fox Keller's biography of Barbara McLintock (*A Feeling for the Organism: The Life and Work of Barbara McLintock* San Francisco: W. H. Freeman, 1983) and Lorna H. Schiebinger's and Margaret Rossiter's histories of women in science, a good place to continue.

These books do well as subjects for an interdisciplinary study group or credit-bearing course (if one has time), one that attracts younger women in science, graduate and undergraduate alike. Easier entry to the subject is provided by revisionist books about women in science that are not as explicitly theoretical, books such as Vivian Gornick's *Women in Science* (New York: Simon and Schuster, 1983), Ann Sayre's retelling of the story of the discovery of DNA from the point of view of the woman who did not get the prize (*Rosalind Franklin and DNA*, New York: W. W. Norton, 1975), and, as soon as it comes out, Ruth Sime's biography of Lise Meitner.

My science students at Carleton College, who did a short course on the subject of "Women in Science, Woman and Science, Science and Women," with me in the fall of 1993, benefited much from our discussions around these books. Moreover, they enjoyed getting outside of their science work to look critically at science itself. Whether we agree or disagree with its findings, it is important to be open at all times to the criticism, from ourselves and from others, of what we do.

“Women’s Contributions to Physics 1898-1998” A Call for Volunteers

by Professor Nina Byers, UCLA

In 1999, the APS will celebrate its centenary with many events including exhibits on the history of physics. Women are a disappeared people in the history of physics, though many have made very important contributions in the last 100 years. The CSWP is initiating a project entitled Women’s Contributions to Physics 1898-1998 in order to fill in the blanks. (The starting date is important because Marie Sklowdoska Curie’s first great papers were published in 1898.)

A database needs to be developed for this project. There are many great discoveries made by women in addition to those of Marie Curie that should be documented; e.g., those of Lise Meitner, Emmy Noether, Dorothy Crowfoot Hodgkin and surely many others. The history of our subject is in need of clarification. Often it happened that women were not acknowledged when they should have been; e.g., because they did not occupy appropriate positions in the universities and/or laboratories in which they worked. For the women mentioned above, the record is being put straight. But there are other cases in need of being brought to light. Even for women as well-known as those mentioned above, most of our colleagues are unaware of what they did and how they did it.

There is therefore a big job to be done and volunteers are needed for the effort. Nina Byers, Professor of Physics emeritus at UCLA, has agreed to coordinate this project and to be in charge of organizing the material for nuclear and particle physics. Other organizers are needed for other fields such as condensed matter, plasma physics, atomic physics, accelerator physics, etc.

If you are interested in joining this effort, please contact Nina Byers at (byers@physics.ucla.edu) or (Prof. Nina Byers, Physics Department, UCLA, Los Angeles, CA 90024) with the following information:

1. The field of physics that you specialize, or wish to specialize, in;
2. Your position and the institution in which you work, or your home address;
3. The way you would like to join in this effort.

Additionally, any suggestions about what should be included in this study are welcome, particularly if the suggestor will be volunteering to gather, organize and write up the suggested material.

“There is ... a big job to be done and volunteers are needed for the effort.”

Report on the Women, Gender, & Science Conference May 12-14, 1995

Geneva Blake, Research Associate, AIP Statistics Division

Four hundred feminist philosophers, educators, historians of science, scientists, and mathematicians gathered on the St. Paul campus of the University of Minnesota May 12 -14 at a conference to explore The Women, Gender, and Science Question. Attendees came from 33 states and a number of other countries including Mexico, Canada, Austria, Germany, the Netherlands, Norway, Finland, Sweden, and Australia.

Two of the 40 sessions were devoted exclusively to physics. The first, “Physics: From Practice to Theory”, included papers on feminism and physics by physicists Barbara Whitten of Colorado College and Karen Barad of Pomona College, as well as a study of Sharon Traweek’s book, “Beamtimes and Lifetimes”. The second session, “Women in 20th Century Physics”, examined the major contributions of Lise Meitner, Maria Goeppert-Mayer, Marie Curie, and other women in establishing the field of nuclear physics.

Physics was the focus of several papers presented in other sessions as well. In the session “Careers and Socialization” chaired by physicist Elizabeth Ivey of Macalaster College, Geneva Blake of AIP’s Statistics Division reported on the results of the Physics Department Climate Study recently completed by Judy Franz, Mildred Dresselhaus, and Bunny Clark (see “Site Visits” article, pg. 1). She related findings from both the site visits and the graduate student survey. In the same session, Gerhard Sonnert of Harvard University discussed gender differences in the careers of graduates who had received prestigious postdocs from the NSF, NRC, or the Bunting Institute at Radcliffe. In a separate session, sociologists Kathryn Ward of Southern Illinois and Linda Grant of the University of Georgia compared the mentoring activities of women academics in physics, chemistry, and sociology.

First Annual Networking Breakfast for Women Physicists in Industry

by Tara McLoughlin, APS

At the San Jose meeting, the CSWP and the Committee on the Applications of Physics co-sponsored a Networking Breakfast for Women Physicists in Industry. Approximately 40 women attended this event, which included remarks by women in industry and plenty of time for networking over breakfast.

The breakfast began with a welcome by APS Executive Officer Dr. Judy Franz, who encouraged participation in the new APS Forum on Industrial and Applied Physics (FIAP). CSWP Chair Dr. Beverly Hartline then outlined several programs of interest to women in industry, such as the Industrial Summer Intern Program (ISIP)*. Then Dr. Hartline introduced the two speakers, Helen Gourley of System Sciences Group, and Roberta Saxon of SRI International.

Helen Gourley described her successful transition from an industry worker to a technical consultant. Faced with the prospect of moving into management, which would force her "to stop doing the job for which I am qualified," Gourley decided to start her own business. The benefits of such a move included continued work in technical fields, and "not having to attend boring meetings or listen to grievances." However, she warned the audience that success as a consultant is measured very differently and much more simply than success in other fields. "You must simply make enough money to stay in business. You either succeed or you fail; there is no middle ground" she said.

Roberta Saxon, Deputy Director of the Physical Sciences Division at SRI International explained how her not-for-profit research organization receives funding for research projects. Besides skills in physics, marketing and communication skills are also vital in this field. The ability to analyze the market, fill the market need effectively and cheaply, and identify and reach clients is a large part of her job. In addition, "the ability to define technology in lay terms, especially when lobbying for funding from non-technical politicians, is essential," she said.



Dr. Roberta Saxon gives advice during the Networking Breakfast for Women Physicists in Industry at the March Meeting.

The speakers and other audience mentors advised women interested in making the transition from academe to industry to invest time in increasing self-marketing skills, networking at APS, IEEE and other association meetings, reading trade magazines and journals, and seeking out academics who have ties to industry and a positive outlook about placing students in industrial jobs.

The breakfast ended with half an hour of networking between the audience, CSWP members, and speakers. The CSWP hopes to make this breakfast an annual event.

**Through the ISIP program, companies can receive the resumes of potential summer interns based on the company's specified qualifications (experience, education, gender, ethnic background, geographical location, etc.). For more information on the ISIP program, please contact Tara McLoughlin at APS tara@aps.org, (301) 209-3231.*

For more information on Forum on Industrial and Applied Physics, please contact Arlene Modeste at modeste@aps.org. FIAP applications are available to APS members from the APS membership department at membership@aps.org.

Funding Resources for Women in Physics

by Katherine M. Benson

(Prepared while the author was a UC President's Postdoctoral Fellow, for the Aspen Center for Physics Focal Week on Women in Physics)
University of California, San Diego • Department of Physics 0319 • 9500 Gilman Drive • La Jolla, California 92093-0319 • kbenson@ucsd.edu

This document lists fellowships and grants available to women physicists, of four types: graduate fellowships, portable postdoctoral fellowships, single-institution postdoctoral fellowships, and faculty fellowships and awards. Most are available to men and/or nonphysicists as well. Listing idiosyncracies are: "number" describes the number of awards for which physicists are, in principle, eligible; "stipend" indicates a yearly amount unless otherwise noted; and "eligibility" lists all criteria beyond being a physicist and (for postdoctoral and above categories) possessing an earned doctorate. Finally, a reference section lists text and internet resources for academic fellowship, job, and grant-hunting.

Graduate

Category: Graduate

Sponsor: AAUW

Name: American Fellowships — Dissertation

Contact: AAUW Educational Foundation

American Fellowships

1111 16th Street, NW

Washington, DC 20036-4873

(202) 872-1430

Eligibility: Female U.S. citizens or permanent residents

Tenure: final year of dissertation writing

Stipend: \$13,500

Number: 50

Deadline: mid-November

Eligibility: U.S. citizens in applied subfields only

Tenure: 1 year, renewable

Stipend: \$16,000 plus up to \$10,000 cost-of-education

Number:

Deadline: mid-October

Category: Graduate

Sponsor: AT&T Bell Labs

Name: Graduate Research Program for Women

Contact: AT&T Bell Laboratories

Crawfords Corner Road, Rm 1E-209

Holmdel, NJ 07733-1988

(908) 949-2943

Eligibility: Female U.S. citizens or permanent residents

Tenure: 1 year, renewable

Stipend: \$13,200 plus tuition, fees, books, travel, offered summer employment;

\$1500 grants also available

Number: 4

Deadline: January

Category: Graduate

Sponsor: NPSC

Name: Graduate Fellowships

Contact: National Physical Science Consortium

New Mexico State University

Box 30001 Department 3NPS

Las Cruces, NM 88003

(505) 646-6038; 1-800-854-NPSC

Eligibility: Female or Minority U.S. Citizens, at participating universities

Tenure: up to 6 years

Stipend: \$10,000 plus full tuition and offered summer employment

Number: 4 women; 9 minority

Deadline: November

Category: Graduate

Sponsor: NSF

Name: Graduate Research Fellowships

Contact: Oak Ridge Associated Universities

NSF Graduate Research Fellowship Program

P.O. Box 3010

Oak Ridge, TN 37831-3010

(use STIS — described under References — for more info)

Eligibility: U.S. citizens, nationals or permanent residents; less than 20 semester hours of graduate study

Tenure: 3 years

Stipend: \$14,000 plus cost-of-education

Number: 760, plus 150 minority

Deadline: early November

Category: Graduate

Sponsor: ONR

Name: Graduate Fellowships

Contact: ASEE

11 Dupont Circle, Suite 200

Washington, DC 20036

(202) 986-8516

Eligibility: U.S. citizens, applied subfields only

Tenure: 3 years

Stipend: \$15,000 initially, then higher, plus tuition, fees, and \$2000 to university

Number: up to 50

Deadline: early November

Category: Graduate

Sponsor: Hertz Foundation

Name: Fellowships

Contact: Hertz Foundation

Box 5032

Livermore, CA 94551-5032

(510) 373-1642

Portable Postdoctoral

Category: Postdoctoral

Sponsor: AAUW

Name: American Fellowships — Postdoctoral

Contact: AAUW Educational Foundation

American Fellowships

1111 16th Street, NW

Washington, DC 20036-4873

(202) 872-1430

Eligibility: Female U.S. citizens or permanent residents;

Ph.D. by application deadline

Tenure: 1 year non-renewable

Stipend: \$20-25,000

Number: 5

Deadline: mid-November

Category: Postdoctoral

Sponsor: The Bunting Institute of Radcliffe College

Name: Science Scholar Fellowships

Contact: Science Scholar Fellowship Program

The Bunting Institute of Radcliffe College

34 Concord Ave

Cambridge, MA 02138

(617) 495-8212

Eligibility: Female U.S. citizens; Ph.D. 2 years prior to appointment;

tenable at Boston area universities

Tenure: 1 year; renewable for second year with lab affiliation

Stipend: \$31,300 plus \$3000 research expenses

Number: 8

Deadline: mid-October

Category: Postdoctoral

Sponsor: DOE

Name: Distinguished Postdoctoral Research Fellowships

Contact: DOE Postdoctoral Fellowship Program

Oak Ridge Institute for Science and Education

P. O. Box 117

Oak Ridge, TN 37831-0117

(615) 576-9934

Eligibility: U.S. citizens or permanent residents; Ph.D. within 3 years of

start date; start Jan-March; tenable at DOE labs

Tenure: 1 year, renewable 2 more years

Stipend: \$52,800 plus health, travel allowances

Deadline: early July

Category: Postdoctoral

Sponsor: NSERC

Name: International Fellowships

Contact: International Fellowships Office

Natural Sciences and Engineering Research Council of Canada

350 Albert Street

Ottawa, Ontario

CANADA K1A 1H5

(613) 992-9169

Eligibility: Non Canadians; Ph.D. within 5 years of application; tenable at Canadian universities

Tenure: 1 year, renewable second year

Stipend: C\$35,184 plus moving allowance

Deadline: mid-November

Category: Postdoctoral

Sponsor: NSERC

Name: Postdoctoral Fellowships

Contact: Postdoctoral Fellowships Office

Natural Sciences and Engineering Research Council of Canada

350 Albert Street

Ottawa, Ontario

CANADA K1A 1H5

(613)992-9169

Eligibility: Canadian citizens and landed immigrants; Ph.D. within 2 years of application

Tenure: 2 years

Stipend: Approx C\$28,000

Deadline: September

Category: Postdoctoral

Sponsor: NSF

Name: NATO Postdoctoral Fellowships

Contact: NATO Postdoctoral Fellowship Program

Division of Graduate Education and Research Development

National Science Foundation

4201 Wilson Blvd

Arlington, VA 22230

(703) 306-1630

(use STIS — described under References — for more info)

Eligibility: U.S. citizens, nationals or permanent residents; Ph.D. within 5 years of application; tenable in NATO/Eastern European countries

Tenure: 6-12 months

Stipend: \$33,000 plus dependency and travel allowances

Deadline: early November

Category: Postdoctoral

Sponsor: University of California

Name: President's Postdoctoral Fellowship

Contact: President's Postdoctoral Fellowship Program

University of California

300 Lakeside Drive, 18th Floor

Oakland, CA 94612-3550

(510) 987-9500

Eligibility: Female and minority U.S. citizens or permanent residents; tenable at UC campuses

Tenure: 1 year, renewable second year

Stipend: \$26,000 plus \$4000 research expenses plus health benefits

Number: 20

Deadline: mid-December

Single University Postdoctoral

Category: Postdoctoral-Single

Sponsor: Caltech

Name: Postdoctoral Prize Fellowships

Contact: (Specific Fellowship) — consult intended workgroup for name

Mailcode 103-33

Caltech

Pasadena, CA 91125

Eligibility: Ph.D. normally within 2 years

Tenure: 2 to 3 years

Stipend: \$36,000 plus \$3000 research fund

Deadline: December 1

Category: Postdoctoral-Single

University: Harvard University

Name: Society of Fellows

Contact: Society of Fellows

Harvard University

78 Mt. Auburn Street

Cambridge, MA 02138

(617) 495-2485

Eligibility: nominated by qualified individual

Tenure: 3 years

Stipend: \$36,500-\$38,500.

Number: roughly 8

Deadline: mid-September

Category: Postdoctoral-Single
University: UC-Berkeley
Sponsor: Miller Institute
Name: Research Fellowships
Contact: Miller Institute for Basic Research in Science
2536 Channing Way
University of California
Berkeley, CA 94720
(415) 642-4088
Eligibility: "recent" or new Ph.D.; nominated by qualified individual
Tenure: 2 years
Stipend: \$30,000 plus \$1500 research fund and moving allowance
Number: 8
Deadline: mid-November

Category: Postdoctoral-Single
University: University of Chicago
Sponsor: Fermi Institute
Name: Fermi and McCormick Postdoctoral Fellowships
Contact: Enrico Fermi Institute
5640 South Ellis Ave
Chicago, IL 60637
Eligibility: "recent" or new Ph.D.; nominated by qualified individual
Tenure: 2 years
Stipend: \$34,000 plus \$3000 research fund and moving allowance
Deadline: December 1

Category: Postdoctoral-Single
University: University of Michigan
Name: Society of Fellows
Contact: Michigan Society of Fellows
3030 Rackham Building
The University of Michigan
Ann Arbor, MI 48109-1070
(313) 763-1259
Eligibility: Ph.D. within 3 years; nominated by qualified individual
Tenure: 3 years; includes 1 year teaching
Stipend: \$31,000
Number: 4
Deadline: early October

Faculty Grants

Category: Faculty
Sponsor: Henry Luce Foundation
Name: Clare Booth Luce Professorships
Contact: sponsoring department contacts:
Clare Booth Luce Fund
c/o The Henry Luce Foundation
111 W. 50th St, Rm 3710
New York, NY 10020
Eligibility: University department applies; 5 year grant funds tenure track position for woman candidate outside existing faculty
Tenure: 5 years
Stipend: \$200-\$500,000 total

Category: Faculty
Sponsor: DOE
Name: Outstanding Junior Investigator
Contact: your Program Coordinator at DOE
Eligibility: non-tenured junior faculty in DOE-funded subfields (e.g. high energy)
Tenure: 1-5 years
Stipend: varies
Deadline: varies by directorate

Category: Faculty
Sponsor: NSERC
Name: Women's Faculty Award
Contact: Natural Sciences and Engineering Research Council of Canada
350 Albert Street
Ottawa, Ontario
CANADA K1A 1H5
(613) 992-9169
Eligibility: Canadian citizens and landed immigrants; nominated by a Canadian university
Tenure: 5 years
Stipend: Partial salary for 5 years; research grant
Deadline: at NSERC — October; contact university earlier

Category: Faculty
Sponsor: NSF
Name: Research Opportunities for Women
Contact: Specific address varies; most are:
(Specific Program) Coordinator
National Science Foundation
4201 Wilson Blvd
Arlington, VA 22230
(703) 306-1603
(use STIS — described under References — for more info)
Eligibility: Female U.S. citizens, nationals or permanent residents with faculty or research positions; For Research Planning Grants(RPG) — not previously a PI for a federal grant; For Visiting Professorships for Women (VPW) — "experience in independent research"; For Career Advancement Awards (CAA) — previously a PI on a federal grant
Tenure: (RPG) — up to 18 months; (VPW) — 6-15 months; (CAA) — 1 year
Stipend: (RPG) — up to \$18,000; (VPW) — \$30-235,000; (CAA) — \$50,000 plus \$10,000 equipment
Deadline: (RPG) — varies by directorate; (VPW) — mid-October; (CAA) — varies by directorate

Category: Faculty
Sponsor: NSF
Name: Presidential Faculty Fellowships
Contact: Presidential Faculty Fellowships
National Science Foundation
4201 Wilson Blvd
Arlington, VA 22230
(703) 306-1130
(use STIS — described under References — for more info)
Eligibility: U.S. citizens, nationals or permanent residents; Ph.D. within previous 8 years, tenure-track within previous 4 years; faculty member nominated by university (max 2 nom/univ)
Tenure: 5 years
Stipend: \$100,000
Number: 15 *Deadline:* early November

Category: Faculty
Sponsor: NSF
Name: NSF Faculty Early Career Development (CAREER)
Contact: NSF Forms and Publications Unit
4201 Wilson Blvd
Arlington, VA 22230
(703) 306-1130; ask for pubsNSF 94-101, 94-135F.
(use STIS—described under References—for more info, or contact your NSF program director)
Eligibility: faculty at U.S. degree-granting institutions in NSF-supported fields; non-tenured but tenure-track within previous 4 years; no previous NYI or PFF award
Stipend: typically \$25,000 to \$100,000, plus equipment, up to \$50,000 in first year
Tenure: 3 to 5 years
Deadline: mid-October

Category: Faculty
Sponsor: ONR
Name: Young Investigator Program
Contact: your ONR Division Director
ONR XXX/ATTN:YIP
800 N. Quincy St
Arlington, VA 22217-5660
(use FEDIX — described under References — for more info)
Eligibility: U.S. citizens or permanent residents in U.S. tenure-track positions; Ph.D. within previous 5 years; in ONR supported subfields (e.g. condensed matter)
Tenure: 3 years
Stipend: \$75,000 plus up to \$50,000 2-1 matching grant, possible startup equipment
Number: 16
Deadline: late September

Category: Faculty
Sponsor: David and Lucile Packard Foundation
Name: Fellowship Program
Contact: sponsoring department contacts:
David and Lucile Packard Foundation
300 2nd Street, Suite 200
Los Altos, CA 94022
Director C. Wilbur, (415) 948-7648
Eligibility: University department applies; for retention of young science professors
Tenure: 5 years
Stipend: \$100,000
Deadline: mid-September

Category: Faculty
Sponsor: Sloan Foundation
Name: Research Fellowships
Contact: Sloan Research Fellowships
Alfred P. Sloan Foundation
630 Fifth Ave
New York, NY 10111
Eligibility: faculty member no more than 32-years-old, nominated by department
Tenure: 2 years
Stipend: \$30,000 total
Number: 23
Deadline: mid-September

References

INTERNET — Resources available by www, gopher, ftp, telnet, or email:

APS Women in Physics list (WIPHYS)

A mailing list and site for member-posted files for women in physics. For information, send mail to listserv@aps.org with text "subscribe wiphys".

Chronicle of Higher Education "Academe This Week"

Contains the same job listings that appear in the paper version.
Point www to URL gopher://chronicle.merit.edu.

FEDIX

Government site for grant and fellowship information, sponsored by DOE, ONR, NASA, AFOSR and 6 other federal agencies.

Access:

By Modem:

(800) 783-3349; (301) 258-0953 locally; with parameters '8' data bits, '1' stop bit, and 'N' parity at 1200, 2400 or 9600 baud.

By internet:

telnet or gopher to fedix.fie.com or
192.111.228.33; or point www to URL <http://web.fie.com>.

NSF STIS

A bulletin board with NSF publications and information. Telnet or gopher to stis.nsf.gov with login=public; or better, point www to URL <http://stis.nsf.gov>.

PINET Job Listings

A service of AIP and PINET, recently made free! AIP's joblist.
Telnet to pinet.aip.org with login=password="aipjobs".

Postdoc Job Repository

A listserv with job and grant listings (by discipline). For information, send a mail message to post@docserv.saclay.cea.fr.
The body of your message must be Get Index.

The Stanford Jobs Server

A server with pointers to internet job listing resources.
Point www to URL <http://rescomp.stanford.edu/jobs.html>.

Young Scientist Network Archive

The main entry point to the YSN archives. It contains pointers to the YSN joblist, the YSN grantlist, and other internet job lists and resources.
Point www to URL <http://snorri.chem.washington.edu/ysnarchive/>

TEXT — This list contains only fellowships which are available to a broad spectrum of women in physics. For more specialized information, especially on resources for minorities, for non-Americans, for study abroad in a particular country, or for a public policy year, start with

Notices of the American Mathematical Society, annual October issue, "Stipends for Travel and Study."

G. Schlachter, Directory of Financial Aids for Women 1993-1995 (Reference Service Press, San Carlos, California, 1993).

Directory of Research Grants (Oryx Press, Phoenix, New York, annual).

Your university's fellowship/grants reference section.

For job listings, of course, try Physics Today (monthly), Chronicle of Higher Education and Science (both weekly).

To submit corrections, updates, new entries, or comments on this list, contact kbenson@ucsd.edu. Please leave your mark on the world by contributing any funding information you have that would be helpful to women physicists!

contd. from pg. 1

The climate at the departments varied greatly, from welcoming to hostile. Dr. Franz said that the best departments had several active, mainstream women faculty, and clear, open communication between the women and the chair. Less favorable departments subjected women to "small indignities", such as being called by pet names by advisors or being asked to substitute for department secretaries during lunch breaks. The worst departments had no women faculty and no male champions for women's issues or had more serious problems, such as incidents of sexual harassment that the women often thought had not been taken sufficiently seriously. "Generally speaking," said Franz, "as the number of women physics faculty increased, the climate improved."

Next, Prof. Bunny Clark outlined some of the recommendations the site visit teams made to the department to improve the departmental climate. Some suggestions to help students included opening a student lounge/study area, increased career counseling, increased access to telephones and computers, improvements in advising and curriculum, and careful assignment of teachers — particularly in key introductory courses. Other suggestions included opening lines of communication between the women in the department and the chair, establishment of advisory groups on women's issues, attention to dual career/family issues, community-building social events, more aggressive recruiting of women students and faculty, concern for safety issues, clear procedures for sexual harassment complaints, and invited colloquium talks by women speakers.

Prof. Clark said that the climate for all students and faculty, both male and female, improves when such steps are taken. "In every case as far as we can tell, the situation within the department is better for the women students and the women faculty," said Clark. "But it's also better for everyone. Because when there is an atmosphere of cooperation and mutual respect in the workplace, this is a better environment for creative thinking and for happy people."

The three talks were followed by a 90-minute open forum discussion, during which members of the audience were given two minutes to ask questions, make comments or respond to questions. Some audience members asked specific questions about the project, including issues of anonymity for respondents during the visits, findings of the teams on the situation for minorities, survey differences between married and unmarried women and students' perceptions about their research and teaching abilities. Other issues raised were more broad in scope, such as changing the life cycle of the American physicist, activism of tenured versus non-tenured female faculty, combatting gender stereotypes of foreign male students, personality characteristics common to many women physicists, and child and elder care issues.

Discussion on issues raised during the site visits sessions will continue on the CLIM-FYS list. This list was set up by APS Forum on Physics and Society Chair Dr. Anthony Nero (LBL), and will be moderated by Dr. Priscilla Auchincloss (U. of Rochester). You need not have attended either session in order to participate in the online discussion. To subscribe: send the message: subscribe clim-fys to majordomo@physics.wm.edu. Messages for posting on the list should be addressed to clim-fys@physics.wm.edu.

The CSWP is currently compiling a list of women who have gone on two or more site visits and would be willing to give talks on the program. Copies of transparencies, past talks and statistics will be made available to assist in the preparation of talks. Please contact Tara McLoughlin (tara@aps.org) if you are interested in adding your name to this list.

A full transcript of the March site visits session is available from APS. Contact Tara McLoughlin if you are interested in receiving a copy.

"Generally speaking, as the number of women physics faculty increased, the climate improved."

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 roster also serves as the Gazette mailing list).**

See page 15.

Aspen Focal Week on Women in Physics

by Catherine Kallin, Katherine Freese, and Elizabeth H. Simmons

Women still make up only a small fraction of professional physicists — and the fraction has not increased much in the last decade. The reasons for this, and the means for changing it, have recently been the subject of much discussion at the local and national levels, in the news media, and on the internet. The anomalously low participation of women in physics and the high attrition rates at every level from high school student to senior scientist are often attributed to cultural forces that are deeply rooted in both society at large and in the society of physicists.

The Aspen Center for Physics (ACP), located in Aspen, Colorado, is a microcosm of the U.S. community of theoretical physicists. Each summer, the ACP runs a 15-week research program that includes 8-10 overlapping workshops on topics of current interest. More than 400 physicists (from over 700 applicants) are invited to spend three to five weeks at the Center, participating in the workshops and doing research unhampered by the distractions and responsibilities of their usual working environments. During an average week, two workshops are in progress and 85 scientists are in residence. The Center is run largely through the volunteer efforts of physicists; the summer programs are supported by grants from the NSF and NASA.

The Center is known for its informal atmosphere, which is conducive to both solitary and collaborative work. Many new collaborations are formed there, and useful interactions are as likely to take place on the picnic benches outside the offices as on the numerous hiking trails in the area. For young

physicists, a stay at Aspen, where they meet, hear, question, and hike with physicists formerly known only from article bylines, can confer a unique sense of belonging in the field. For many women scientists, this sense of belonging is particularly hard to acquire and, correspondingly, valuable.

Because participation in the research program at the ACP is such an important means of integrating new physicists into the mainstream, the Center is particularly well-suited for reaching out to those traditionally kept at the edges. Accordingly, we applied in 1993 for permission to organize a workshop on women in physics at the Center during the summer of 1994. While no one workshop could resolve all the issues surrounding the 'problem' of women in physics, we felt that because of the Center's influence on the physics community, a workshop held there could have a relatively wide impact. The Scientific Advisory Board of the ACP approved our proposal, and a year later, the Focal Week on Women in Physics took place at the Aspen Center for Physics during July 4-10, 1994.

The formal objectives of the workshop were the following:

1. To introduce a large number of women (about 25) to the ACP at the same time (typically only five to six women have been present in a given week);
2. To increase the number of women involved in ACP scientific workshops in 1994;
3. To give women physicists the opportunity to meet each other and to experience a physics environment where they are not a negligible minority; similarly to afford men physicists the experience of such an environment;
4. To generate concrete proposals for effecting a long-term increase in the number of women who apply to, are accepted to, attend, and organize scientific workshops at the ACP;
5. More generally, to explore some of the reasons for the traditionally low participation by women in physics.

Londa Shiebinger leads a discussion at the Aspen Focal Week on Women in Physics.



The Focal Week was integrated into the existing structure developed over the years for the ACP

summer workshops. Applicants were evaluated by the Center's admissions committee according to the usual scientific criteria; those admitted were accorded the standard amenities such as office space and housing assistance. The Focal Week was deliberately timed to overlap with the beginning and end of several scientific workshops so that the Focal Week participants could stay longer than the one week and benefit from the scientific activities at the ACP.

Focal Week participants included 25 women physicists and astrophysicists who were formally admitted to the ACP, a number of the men physicists in attendance at the ACP that week (including most of the senior officers of the ACP), some physicists who were otherwise participating in a conference running concurrently at Snowmass, and the invited speakers, Gretchen Klein (NSF), Bernard Sadoulet (U.C. Berkeley), Londa Schiebinger (Penn. State) and Sheila Tobias (Research Corp.). In addition, a small number of people from the Aspen area and some high school physics teachers, who were attending an AAPT meeting in Aspen, also participated in the Focal Week activities.

The formally organized activities included four lectures, one colloquium, four open discussions on specific topics (each moderated by a discussion leader), and three working groups whose role was to generate concrete suggestions for the ACP. In addition, there was a get-acquainted session, a reception (hosted by Bernice and Loyal Durand) for all Focal Week participants, and a spontaneous discussion of "Tips for Success" for job candidates and new faculty members. During the Focal Week, one of the participants, Katherine Benson, completed work on a list of "Funding Sources for Women in Physics" (**see insert**) which is now available as either a tex file (fellist.tex) or a dvi file (fellist.dvi) on the World Wide Web at <ftp://cs.ucsd.edu/pub/mic>. Toward the end of the program, the women participants generated a questionnaire asking about early interest in science, support from peers/family/teachers, career paths, the work/family balancing act, strategies for recruiting/retaining women, and perceptions of the Focal Week; the (anonymous) responses were typed and circulated to all of the women.

The lectures and colloquia held at the Center (see sidebar) were each attended by 50 or more people; the Heinz R. Pagels Memorial Lecture by Londa Schiebinger, which was held in the Paepcke Auditorium at the Aspen Institute and was open to the general public, was attended by over 100 people. The lectures by Tobias and Schiebinger connected the anomalously low participation of women in physics with historical and cultural

forces deeply rooted in society at large and in the society of physicists. Sadoulet's lecture presented a physicist's view of the current society of physicists, as well as arguments as to how physics could benefit by "constructing a more humane and supportive environment and a more pluralist community." Klein presented recent data on the status of women in physics and also described the NSF Visiting Professorship Program for Women. Each of the lectures stimulated considerable discussion, often longer than the lecture itself, and brought out the diversity of opinions held by the participants. The lectures were also an excellent stimulus for the open discussions that followed.

The open discussions addressed the following diverse topics:

- "Macho-ness" and the culture of physics
- What works and what doesn't: how institutions can increase women's participation
- Family and work: balancing family and career, access to childcare, specific problems encountered by two-career couples
- How women affect physics: the changes women have brought to the physics community and, more controversially, whether they might alter the way that science itself is done

Toward the end of each open discussion session, four to eight participants volunteered to form a related working group to generate specific suggestions for the ACP. On the last morning of the workshop, all participants met to discuss the recommendations of the working groups.

The Focal Week ended on Friday afternoon, with a lively colloquium by Sheila Tobias on the topic of how introductory college physics is taught and received. Having spent a week considering the relationship of women physicists to the physics community, it was refreshing to step back and look at the relationship between the physics community and the wider academic world.

All of the objectives of the Focal Week were satisfied. During the Focal Week, women comprised almost 30 percent of the physicists in attendance at the Center. Feedback from the participants suggest that this, in itself, was an overwhelmingly positive experience, allowing many young women physicists to meet an additional 10-20 other women physicists for the first time. It was interesting to learn from each other and to see such a talented group struggling with the difficult and nebulous "problem" of women in physics.

"The lectures... connected the anomalously low participation of women in physics with historical and cultural forces deeply rooted in society at large and in the society of physicists."

Furthermore, the majority of women at the Focal Week took advantage of the opportunity to participate in the overlapping or adjacent scientific workshops.

Perhaps the most concrete outcome of the Focal Week was a list of 21 recommendations as to how the Aspen Center for Physics can increase the number of women who apply to, are accepted to, attend, and organize the programs at the ACP. These recommendations fall into the general categories of childcare, physics couples, culture or atmosphere, workshop/conference organization, and admissions. Nearly all have already been implemented. We are optimistic that the ACP will continue to make the effort required to increase the participation by women in all future ACP activities. We believe the ACP can play an important leadership role in this regard since a successful visit to the ACP by a young physicist can foster valuable contacts as well as excellent physics.

Individual members of the Center (as well as outside organizations such as the NSF) can also contribute to solving what was agreed to be the most important obstacle to the integration of women in physics: **the insufficient number of women in faculty and long-term industrial research positions.** One clear message that came through was that the small number of women who do hold such positions carry a heavy burden. In addition to their normal duties, they are in continual demand as mentors and role models for high school girls, women undergraduate and graduate students, and all other women physicists less senior than

themselves. Similarly, their presence is seen as necessary and as fulfilling a special need on committees at all levels, and they are much more likely than their male counterparts to be approached by students who have experienced sexual harassment or who need "personal" support or help. The burden of all these "additional" demands, which arise naturally in the lives of professional women physicists, can only be mitigated by hiring more women into these positions.

Clearly, the ACP cannot, by itself, succeed in increasing the number of women faculty and industrial scientists in the U.S. The main responsibility for doing this lies with universities and companies and with government organizations. In this regard, the discussion of "What works and what doesn't" touched on a number of programs (e.g. those at Penn State and at the University of Wisconsin at Madison) whereby universities are taking a comprehensive, top-down approach to the problem of increasing the representation of women faculty in science and engineering. Also discussed was the Canadian (NSERC) program of Women's Faculty Awards, which provides bridge funding for positions for women faculty in Science and Engineering and which, over the past five years, has led to the hiring of over 50 new women into tenure stream positions. It was suggested that the NSF could be playing a more active role, along these lines, in the U.S.

At the same time, it was noted that nearly all of the women Focal Week participants were sensitive to the not infrequently expressed opinions of male colleagues that they had only been hired because they were women. Such opinions seem to be widespread, even in the absence of effective "affirmative action" hiring programs. Both the universality of this experience and the intensity of its effect on the morale of women scientists, suggest that considerably greater efforts are warranted in the education of both men and women scientists on the important role that exists for women in science and engineering.

We are pleased with the outcome of the Focal Week and are grateful for having the opportunity to organize such a worthwhile venture. We thank the management of the ACP both for providing this opportunity and for their support and encouragement over the past year. We are also grateful to Sally Mencimer and all of the Aspen staff for their invaluable and enthusiastic assistance. We give special thanks to John Berlinsky and Bernice Durand for always helping out when help was needed. Finally we thank Rose Sergeant, Bernard Sadoulet and the Berkeley Center for Particle Astrophysics for financial support which allowed us to bring in the high-profile, non-physicist speakers who were such an essential ingredient in the success of the Focal Week.

Lectures Held at the Focal Week for Women in Physics

Tuesday, July 5, 10:30am
Aspen Center for Physics
Bernard Sadoulet (U.C. Berkeley;
Director, Center for Particle
Astrophysics)
"The Changing Culture in Science"

Tuesday, July 5, 1:30pm
Aspen Center for Physics
Sheila Tobias (Research Corporation)
"The Problem of Women in Science:
Why is it so Hard to Convince People
There is One?"

Wednesday, July 6, 10:00am
Aspen Center for Physics
Margrete Klein (NSF; Director,
Visiting Professorships for Women)

"Current Information on the Status of
Women in Physics and NSF Programs for
Women"

Wednesday, July 6, 8:00pm
Paepcke Auditorium, Aspen Institute
Londa Schiebinger (Penn. State University)
"Women in Science: Does Gender Matter?"

Friday, July 8, 3:00pm
Aspen Center for Physics
Sheila Tobias (Research Corporation)
"Stalking the Second Tier, or, The Two
Cultures Revisited"

Switching Fields in Physics: Job Hunting Strategies

by Marla Dowell, Joint Institute for Laboratory Astrophysics

A current APS report on jobs and education indicates that "...1993 physics graduates experienced the most difficulty in 20 years." [1] Tough times call for creative solutions. The most effective way of finding a job is by word-of-mouth: yours, your advisor's or your colleagues'. This method works best if you are looking for job openings within your field. If the job prospects within your field are dim, or if you would like to try something new, there are other options for Ph.D. physicists. These options include, but are not limited to, medical physics, environmental science (a particularly booming field) and financial modeling. For example, the National Center for Atmospheric Research in Boulder, CO routinely advertises for software engineers and scientists. An energetic person with fortran or C programming experience, large-scale data analysis experience or numerical modeling experience could apply for these positions.

Recently, a nuclear physics graduate student asked whether she would be labeled as a medium energy heavy ion physicist for the rest of her career. In a word, no. Towards the end of my graduate career, I investigated career opportunities outside of medium energy pion physics. The final result of this search was a postdoctoral position at the Joint Institute for Laboratory Astrophysics in the field of atomic physics. My principal reason for switching fields was to gain more control over the direction of my research. I had absolutely no problem convincing atomic physicists on this point; I worked very hard convincing them that I would make a good postdoc. I will try to briefly summarize some useful job hunting strategies.

A word of warning, any serious job hunt is extremely time consuming. If it involves switching disciplines, be prepared for a lot of rejection letters. Remember, you can only hold one job at a time. While a plethora of job offers is nice, only one job offer is necessary.

1. Keep up with the current literature and attend departmental colloquia. Make a note of interesting physics problems and contact those people about positions in their groups. I found my job by perusing *Physical Review Letters*; I originally applied for an atomic physics job studying nuclear physics properties. That person did not have a position, but he gave me the names of about a dozen people to call

and eventually passed my name on to the person who offered me a job. (As an aside, I was much more successful at generating offers from PRL searches than replying to *Physics Today* ads.)

2. Make a list of your strong points before contacting people about jobs. (Be prepared for, "Why should I hire you?") If you're mechanically inclined, e.g., fixing cars, make sure potential employers know that. My experience with lasers was limited to upper-level undergraduate laboratories, but I had experience with relatively sophisticated data analysis and Monte Carlo simulations. My broad undergraduate research background, a lot of hardware experience and the ability to learn new things on my own were all instrumental in my successful job search. Based on this background, my supervisor took a chance that I would pick up new lab skills relatively quickly. Less than a year and a half later, I am now something of a laser jock.
3. Seek out other faculty members at your school who are studying interesting problems and talk to them about their research. Don't limit yourself to your department. I spoke with people in the Health, Sciences, and Technology (HST) program at M.I.T. about medical physics programs. HST puts out a nice brochure that lists its faculty members and describes the research projects within the program. One M.I.T. postdoc made the transition from condensed matter physics to neurobiology.
4. Be assertive. A lot of people will say they are not interested before you find someone who is willing to offer you a job. If someone doesn't have a position for you, ask him/her to recommend names of other people for you to talk to. Probably the most difficult part of any job search is contacting potential employers.
5. Tailor your cover letter and resume for each job. Make sure that you list your strong points from step 2 and how they apply to a particular position. You will have a better success rate with letters that carefully explain why you are the best candidate for the job rather than generic letters that read, "My name is J. Schmoo. My

contd. on next pg.

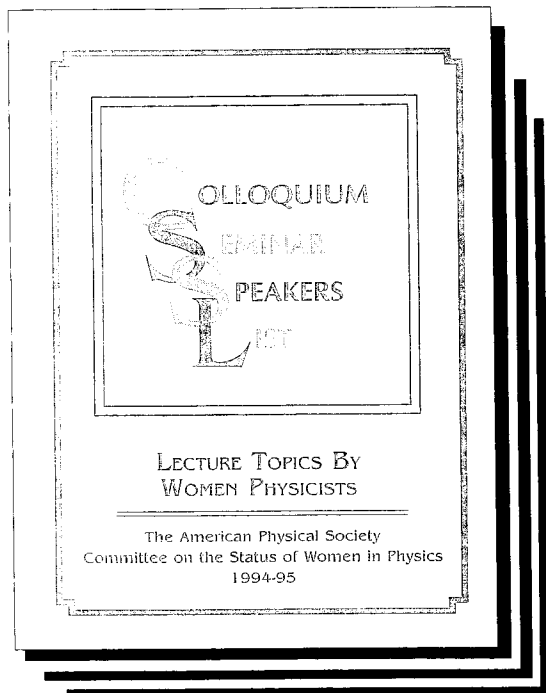
thesis is entitled, "Gee Whiz" under the supervision of Professor J. Cool. I've enclosed my resume for the job that you advertised in *Physics Today*." If you do decide to respond to an ad that may generate hundreds of applicants, try to find a contact within the department through your advisor or a colleague that will bring your application to the attention of the appropriate people.

- Carefully weigh your decision before switching fields. I'm very happy with my current position, but I didn't get this far without a lot of hard work and some sacrifice. My atomic physics colleagues can't comment on my nuclear physics work, and my nuclear physics colleagues can't comment on my atomic physics work. In addition, I have less experience in my particular subfield than my peers. However, I've used my computational skills to perform some theoretical calculations. These calculations have led to a greatly improved understanding of our experimental results and place me in a unique position to study both theoretical and experimental aspects of certain atomic physics problems. This ability, to investigate both sides of a problem, can be extremely rewarding.

Marla Dowell received her Ph.D. in medium energy physics from M.I.T. in 1993. Her current efforts, as a postdoctoral fellow at the Joint Institute for Laboratory Astrophysics, focus on experimental and computational studies of nonlinear optical behavior in atomic vapors. She credits her mentors at M.I.T. and Michigan for her successful transition to atomic physics.

[1] Jobs and Education: A Panel and Open Forum (FPS, FED), Anthony V. Nero, Jr., Chair, The Joint Program of the Forums of The American Physical Society, March 1995, San Jose, CA.

***Rethinking Science as a Career: Perceptions and Realities in the Physical Sciences* by Sheila Tobias, Daryl Churbin, and Kevin Aylesworth will be available from the Research Corporation this summer. This book deals with the "jobs problem" in physics, chemistry, geoscience, and astronomy, and offers some creative solutions for the science community to consider. To receive your complimentary copy, send your name and address to The Research Corporation, 101 N. Wilmont Rd, Tucson, AZ 85711**



The 1994-1995 Colloquium/Seminar Speakers List (CSSL) of Women in Physics (pictured to the left) is now available from 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 CSSL serves as a resource for middle school, high school, university and general audiences. Information on the speakers is ordered by states and by field for easy reference. The APS Committee on Minorities maintains a similar list of minority speakers in physics. To receive your free copy of either list, please complete this form and return it to APS.

Name: _____

Institution: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone: _____

Women's CSSL

Minority CSL

**Please return this form to:
The American Physical Society, One Physics Ellipse,
College Park, MD 20740-3844**

**please note: The 1995-96 CSSL will be available in late July 1995*

Report on Women APS Fellows

Eleven women from six units were named APS Fellows for 1994. Fellowship in the APS is one of the Society's high honors, and recognizes significant contributions to the advancement of physics. The following are this year's women Fellows of the APS, along with their divisions and citations. The CSWP congratulates these women on their great achievements.

Astrophysics:

Barbara Jones

University of California, San Diego

"For pioneering development of state-of-the-art infrared instrumentation, the design of the next generation of telescopes, and their use to make forefront observations of infrared sources"

Condensed Matter:

Catherine Kallin

McMaster University, Ontario, Canada

"For contributions to the understanding of correlations between electrons in low-dimensional systems"

Ana Celia Mota

Laboratorium für Festkörperphysik,
Zurich, Switzerland

"For work on superfluidity and superconductivity at ultra-low temperatures"

Claudia D. Tesche

Low Temperature Laboratory, Helsinki, Finland

"For work in understanding noise and the limits of sensitivity of superconducting quantum inference devices and their application in neuromagnetism"

Chemical Physics:

Sylvia T. Ceyer

Massachusetts Institute of Technology, MA

"In recognition of thorough and insightful contributions to the field of surface science that have advanced our understanding of the dynamics of chemical reactions on surfaces"

Shirley Chiang

IBM Almaden Research Center, CA

"For advances in real space imaging of surface structure by scanning tunneling and force microscopies, especially molecular identification, imaging of metals and alloys, and atomic scale frictional forces"

Silvia L. Voelker

Huygens Laboratory, Leiden, The Netherlands

"For experimental studies of dephasing, energy transfer and spectral diffusion processes in low temperature glasses and crystals via permanent and transient spectral hole burning"

Nuclear Physics:

Susan J. Seestrom

Los Alamos National Laboratory, NM

"For experimental studies of the nuclear isospin response in inelastic pion scattering, and for her contributions to our understanding of parity violation in compound nucleus neutron resonance"

Plasma Physics:

Sally Ride

California Space Institute, La Jolla

"For outstanding contributions to space physics, free electron lasers, space exploration and disarmament policy studies"

Forum on International Physics:

Marleigh C. Sheaff

University of Wisconsin, Madison

"For her efforts in continuing and strengthening physics relations between the United States and developing countries"

Athene M. Donald (DHPP)

Cavendish Laboratory, University of Cambridge, England

"For her research into the mechanisms of high temperature crazing, as well as morphology and phase behavior in liquid crystalline polymer systems"

Nominate a woman for APS Fellowship this year!

All APS members who are members of subunits are eligible to nominate, and all APS members are eligible for nomination. For more information on nominating, contact Ken Cole at 301-209-3268 or cole@aps.org.

The following are the deadlines for receipt of nominations for each of the APS units:

Astrophysics	April 30	Forum on the History of Physics	March 1
Biological Physics	June 1	Forum on International Physics	March 31
Chemical Physics	Feb. 15	Forum on Education	March 15
Computational Physics	Feb. 15	Few Body Systems	
DAMOP	March 15	Topical Group	April 1
DCMP	Jan. 30	Fundamental Constants	
Fluid Dynamics	Feb. 15	Topical Group	April 1
High Polymer Physics	March 1	Instrument and Measurement Science	
Materials Physics	Feb. 15	Topical Group	March 31
Nuclear Physics	April 1	Laser Science	
Particles and Fields	April 1	Topical Group	April 1
Physics of Beams	March 15	Shock Compression	
Plasma Physics	March 1	Topical Group	April 1
Committee on Applications	March 30		
Forum on Physics and Society	April 1		

Lise Meitner and the Dawn of the Nuclear Age

Preview by Ruth Sime, Sacramento City College

Reviews

It seems to me that I have always known of Lise Meitner. As a child I must have seen her picture in *Life*, or in the *New York Times*, or perhaps in the *Aufbau*, the German refugees' newspaper that my parents and grandmother often read. Just after World War II, Lise Meitner was a huge celebrity in America; a tiny woman who barely escaped the Nazis, the physicist responsible for nuclear fission, "the Jewish mother of the atomic bomb"—although she was a Jew by birth, not affiliation, and she had refused to work on the bomb. At the age of six or seven, I didn't read the fine print. To me she was a hero, like Eleanor Roosevelt.

Lise Meitner almost broke the pattern of women's exclusion from history. Her schooling in Vienna ended when she was 14, but a few years later, the university opened its doors to women and she studied physics under the charismatic Ludwig Boltzmann. As a young woman she went to Berlin without the slightest prospects for a future in physics, but she found a mentor and friend in Max Planck, and a collaborator in Otto Hahn, a chemist just her age. Together Meitner and Hahn established themselves in radioactivity, and then Meitner went on, independent of Hahn, into nuclear physics, an emerging field in which she was a pioneer. Her scientific success was matched by career advancement: her first paid position, promotions, head of her own physics section, a professorship, inclusion in an international community of scientists who were her friends and colleagues, among whom she was one of the great experimental physicist of her day. Her passion for physics never left her. At the age of 85, she reflected on the physics that had brought "light and fullness" to her life.

Her prominence was however evanescent. When I began this study, fewer than ten years after her death in 1968, Lise Meitner and her work were fading rapidly from view, against a backdrop of controversy that did not disappear. In the autobiographies of Otto Hahn, there was almost nothing of her personality and little of her science; in the general literature her pioneering work in nuclear physics was hardly mentioned. Instead, her name was almost only associated with nuclear fission, although it was at just this point that the controversy was most pronounced. The undisputed facts were these: for four years in Berlin the team of Meitner, Hahn, and Fritz Strassmann, a younger chemist, conducted an investigation that culminated in the discovery of fission in 1938; Meitner was forced out of Germany a few months before the discovery, which was published under the names of Hahn and Strassmann only; Meitner and her

nephew Otto Robert Frisch were the first to provide a theoretical interpretation of the fission process; the Nobel Prize went to Hahn, alone.

Regarding Meitner, the protagonists did not agree. According to Strassmann, she was the intellectual leader of their team in Berlin, and continued to provide critical guidance, through her correspondence with Hahn, after she left. According to Hahn, Meitner contributed nothing to fission, and may have prevented it from being discovered sooner. After the war, Hahn became a public figure of exceptional prominence. His version of the history of the discovery overwhelmed all others; Meitner was eclipsed, and her scientific reputation was damaged. Except for Strassmann, almost none of her contemporaries raised the obvious questions: Given her forced emigration in the midst of an ongoing investigation, wasn't it possible that the scientific record did not accurately reflect her contributions? Given the dishonesty and corruption of the Nazi period, wasn't it essential to critically evaluate the statements of those who came through it? These were some of the questions with which I began this book.

The answer to the scientific questions are quite straightforward. The published scientific record shows that Meitner, the physicist, framed the investigation from the start; the Meitner-Hahn correspondence also shows, as Strassmann always claimed, that despite her absence, Meitner remained an essential member of the Berlin team until fission was discovered, and beyond. The scientific record thus contradicts the assertions of Otto Hahn. For answers we can read his letters to Meitner soon after the discovery: in them we find the fear that led him to distance himself from her and the self-deception with which he claimed fission for chemistry alone. Hahn's behavior illustrates what Primo Levi has called the "falsification of memory, falsification of reality" that characterized Hitler's Germany; for Hahn it was irreversible, even after the Third Reich was gone. Dan Bar-On has written of the profound repression of postwar Germany; so it was for Otto Hahn. He never looked back, but continued to suppress and deny Meitner's role.

The focus of this biography is Lise Meitner, and there is a grand story to tell: the dramatic sweep of atomic physics in this century, and her part in it; her development from a young woman to a mature scientist; her community of friends and colleagues

contd. on next page

Professing Feminism: Cautionary Tales from the Strange World of Women's Studies

Review by Sheila Tobias¹, Author and Educator, Tucson, AZ

Professing Feminism: Cautionary Tales from the Strange World of Women's Studies (New York: Basic Books, 1994) is a hard-hitting critique of the way women's studies is taught in colleges and universities. As one who pioneered with many other social scientists and humanists in the late 1960s to add women and women's issues to the standard liberal arts curriculum, I find it painful but necessary to come to grips with some of the distortions that authors Noretta Koertge, a philosopher of science at Indian University in Bloomington, and Daphne Patai, who teaches Brazilian literature and women's studies at U-Mass, Amherst, bring to our attention.

The discipline, they write, has strayed far from its original objectives of unearthing forgotten works by women and shedding light on women's lives. But unlike many old-timers like myself who have become similarly uncomfortable with some of the directions women's studies scholars and teachers have taken, Patai and Koertge have bitten the bullet and published their critique based on interviews and observations of women's studies in action. At first, they hesitated fearful their criticisms would be seized upon by the political right epitomized by the late Allen Bloom's searing criticism of post-sixties' university discourse in *The Closing of the American Mind*. But then they decided that better this self-criticism should come from feminists than from the outside and so proceeded with their work.

The heart of their criticism is in the "illiberalism" of the women's studies classroom where certain ideas and opinions are simply not tolerated, "political correctness" at its worst. And, as a result, male students and those females who shun extreme ideological positions are being driven away. The book is weakened by the anonymity of the examples and quotations. We hear about "Sylvia" and "Marilyn" pseudonyms or composite figures, whose lengthy comments and criticism are

presented as solid evidence for the authors' point. But one point is made: if women's studies is to survive in an academic milieu, then it must be inclusive of ideas and of the people it recruits to teach and to learn.

There is no question that women's studies courses and programs grew out of the feminist reawakening of the 1960s; and that they would lose their purpose if they became just another arcane academic inquiry. Still, there is a way to open students' eyes to what has been omitted and distorted in the traditional liberal arts, without succumbing to man-bashing or heterophobia, as was experienced by the students Koertge and Patai interviewed.

There is a way to teach women's studies without stifling other opinions. I used to open my course on "Gender and Politics" each spring for the 10 years I taught the course at UCSD with a statement about the nature of the course. I would say, "There is room in this course for every opinion and point of view. You may even take the position that women are biologically or psychologically inferior to men — so long as you can buttress your arguments. The only thing I require of you is that you take the subject seriously. If you can't, perhaps you can't take this course seriously either."

If women's studies is to survive, that is to be taken seriously by students, instructors in other fields, and administrators alike, Koertge and Patai conclude, "women's studies must find its way out of the ideological maze thrown up by true believers and self-serving activists...toward a humanistic feminism that recognize[s] within the complex legacy of "patriarchy" the many liberal principles and enlightened attitudes worth preserving."

¹ Sheila Tobias is writing a book *Sexual Politics: The Legacy*, an interpretive history of the second wave of feminism 1960-Present.

Reviews

Lise Meitner, contd from previous page

—"great and lovable personalities," she called them — who were the great physicists of the twentieth century. It is not possible, however, to do justice to Lise Meitner, her science or her person, without making an effort to dispel the misinformation that clouded her later years. Hahn's falsifications were just the start; accompanying him was a chorus of advocates,

none with firsthand knowledge of the discovery, who echoed his view. They reflected the mentality of postwar Germany: unfinished business from the Third Reich, misplaced national pride, denial that injustice had been done. Their message was disseminated by a generation of journalists and casual historians who accepted Hahn's version

contd. on next page

Luise Meyer Schutzmeister Award to Jun Pan

Ms. Jun Pan, a doctoral candidate in physics at New York University, is the winner of this year's Luise Meyer Schutzmeister Award. The \$500 award, sponsored by the Association for Women in Science (AWIS), recognizes an outstanding woman graduate student in physics. The award was established in memory of nuclear physicist Luise Meyer Schutzmeister, Senior Physicist at the Argonne National Laboratory.

Ms. Pan received her B.S. in physics from Shanghai Jiao Tong University in 1990. In the fall of that same year, she moved to the U.S.,

and completed her Master's Degree within a year. Jun Pan's research is mainly focused in the field of Nanostructure Physics. She has been intensively involved in the study of Silicon Clusters since she started her thesis work with her advisor at NYU, Mushti Ramakrishna. In her free time, Ms. Pan enjoys exploring New York City and participating in several different sports.

For more information on the Luise Meyer Schutzmeister Award, please contact AWIS at (202) 408-0742.

contd. from previous page

without ever noticing what lay just below the surface. They may have been blinded by Hahn's fame and the glitter of his solo Nobel Prize (here, too, is an interesting story); they also, apparently, found it natural to suppose that a woman scientist would be incompetent, or subordinate, or wrong. Or invisible: for 35 years Germany's leading science museum displayed the fission apparatus — the physical instruments that Meitner built and used in her laboratory in Berlin — under a sign that read, "Worktable of Otto Hahn," without mentioning Meitner's name at all. Were it not for Meitner's other contributions and her scientific reputation outside Germany, she might well have slipped permanently below the "historiographic threshold."

It is gratifying to note that in recent years, Lise Meitner's tide has turned. In Germany, especially, she has attracted considerable interest: in the research of Fritz Krafft, the writings of Charlotte

Kerner, Renate Feyl, Helga Konigsdorf and others. Responding to public pressure, the Deutsches Museum redesigned their fission display in 1990 to include Hahn, Meitner and Strassman equitably. And in 1992 the Society for Heavy Ion Research (GSI) in Darmstadt proposed that one of the heaviest elements it has produced, element 109, be named for Lisa Meitner; the name meitnerium, Mt, was accepted by the International Union of Pure and Applied Chemistry (IUPAC) in 1994. Thus Lise Meitner joins Marie Curie (with curium, element 96) as the second woman to take her place on the periodic table.

Ruth Sime is a physical chemist who holds a Ph.D. from Harvard University. She is currently professor of chemistry at Sacramento City College. Her scientific biography of Lise Meitner will be published by the University of California Press in January 1996. She has been working on the book for nearly twenty years. The preceding article was adapted from the introduction to the book.

Add your name to the Colloquium Speakers List of Women in Physics.

Mail in the form on page 17,
or use the interactive Web form (<http://aps.org/educ/cslapp.html>)

Colloquium/Seminar Speakers List (CSSL) of Women in Physics Enrollment/Modification Form ♦ 1995-1996

(updates can also be made via www via <http://aps.org/educ/cslapp.html>)

The Colloquium Speakers List of Women in Physics is compiled by The American Physical Society Committee on the Status of Women in Physics (CSWP). The list is updated annually and published in June. Comments, questions and entries should be addressed to :

Colloquium/Seminar Speakers List ♦ APS ♦ One Physics Ellipse ♦ College Park, MD 20740-3844

To enroll or update your current entry, please fill out this form completely and return it to the address above. Copies of this form may be used. *Please print clearly or type.*

Title/ Name Dr. Prof. Ms. Mrs. _____ **Date** _____

Institution _____ **Telephone** _____

Address _____ **FAX** _____

_____ **E-Mail** _____

City _____ **State** _____ **Zip Code** _____

If you have moved out of state, list previous state: _____

For which audiences are you willing to speak? (Please check all that apply)

Middle school High school General Audiences Colloquium/Seminar

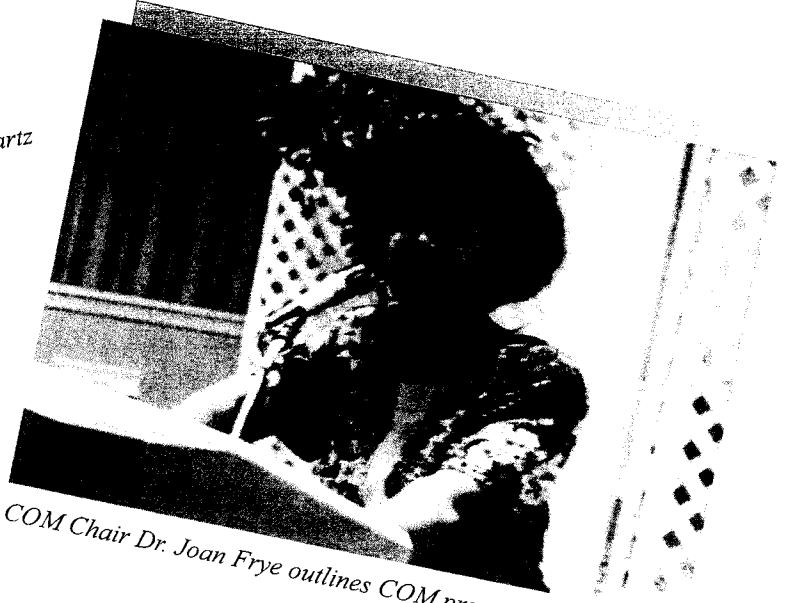
To register a new title, give the title as you want it to appear in the left column below. Then check the section(s) where it is to be inserted. To delete a title, indicate the title and check the appropriate box below. A limit of four total entries will be imposed. You may use additional pages if your modifications (not entries) number more than four. **PLEASE TYPE OR PRINT LEGIBLY PAYING PARTICULAR ATTENTION TO FORMULAE. WE ARE UNABLE TO INCLUDE ILLEGIBLE ENTRIES.**

TALK TITLE	PHYSICS SUBFIELD																		
<p>1. <input type="checkbox"/> Add this title <input type="checkbox"/> Delete this title</p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Accelerators</td> <td style="width: 33%;"><input type="checkbox"/> Condensed Matter</td> <td style="width: 33%;"><input type="checkbox"/> History</td> </tr> <tr> <td><input type="checkbox"/> Astrophysics</td> <td><input type="checkbox"/> Education (pedagogy, etc.)</td> <td><input type="checkbox"/> Interface/Device</td> </tr> <tr> <td><input type="checkbox"/> Atomic</td> <td><input type="checkbox"/> Environmental/Energy</td> <td><input type="checkbox"/> Molec/Polymer</td> </tr> <tr> <td><input type="checkbox"/> Biological/Medical</td> <td><input type="checkbox"/> Fluid Plasma</td> <td><input type="checkbox"/> Nuclear/Particle</td> </tr> <tr> <td><input type="checkbox"/> Chemical/Statistical</td> <td><input type="checkbox"/> General</td> <td><input type="checkbox"/> Optics/Optical</td> </tr> <tr> <td><input type="checkbox"/> Computational</td> <td><input type="checkbox"/> Geophysics</td> <td></td> </tr> </table>	<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History	<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device	<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer	<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle	<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical	<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics	
<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History																	
<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device																	
<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer																	
<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle																	
<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical																	
<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics																		
<p>2. <input type="checkbox"/> Add this title <input type="checkbox"/> Delete this title</p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Accelerators</td> <td style="width: 33%;"><input type="checkbox"/> Condensed Matter</td> <td style="width: 33%;"><input type="checkbox"/> History</td> </tr> <tr> <td><input type="checkbox"/> Astrophysics</td> <td><input type="checkbox"/> Education (pedagogy, etc.)</td> <td><input type="checkbox"/> Interface/Device</td> </tr> <tr> <td><input type="checkbox"/> Atomic</td> <td><input type="checkbox"/> Environmental/Energy</td> <td><input type="checkbox"/> Molec/Polymer</td> </tr> <tr> <td><input type="checkbox"/> Biological/Medical</td> <td><input type="checkbox"/> Fluid Plasma</td> <td><input type="checkbox"/> Nuclear/Particle</td> </tr> <tr> <td><input type="checkbox"/> Chemical/Statistical</td> <td><input type="checkbox"/> General</td> <td><input type="checkbox"/> Optics/Optical</td> </tr> <tr> <td><input type="checkbox"/> Computational</td> <td><input type="checkbox"/> Geophysics</td> <td></td> </tr> </table>	<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History	<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device	<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer	<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle	<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical	<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics	
<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History																	
<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device																	
<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer																	
<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle																	
<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical																	
<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics																		
<p>3. <input type="checkbox"/> Add this title <input type="checkbox"/> Delete this title</p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Accelerators</td> <td style="width: 33%;"><input type="checkbox"/> Condensed Matter</td> <td style="width: 33%;"><input type="checkbox"/> History</td> </tr> <tr> <td><input type="checkbox"/> Astrophysics</td> <td><input type="checkbox"/> Education (pedagogy, etc.)</td> <td><input type="checkbox"/> Interface/Device</td> </tr> <tr> <td><input type="checkbox"/> Atomic</td> <td><input type="checkbox"/> Environmental/Energy</td> <td><input type="checkbox"/> Molec/Polymer</td> </tr> <tr> <td><input type="checkbox"/> Biological/Medical</td> <td><input type="checkbox"/> Fluid Plasma</td> <td><input type="checkbox"/> Nuclear/Particle</td> </tr> <tr> <td><input type="checkbox"/> Chemical/Statistical</td> <td><input type="checkbox"/> General</td> <td><input type="checkbox"/> Optics/Optical</td> </tr> <tr> <td><input type="checkbox"/> Computational</td> <td><input type="checkbox"/> Geophysics</td> <td></td> </tr> </table>	<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History	<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device	<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer	<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle	<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical	<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics	
<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History																	
<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device																	
<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer																	
<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle																	
<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical																	
<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics																		
<p>4. <input type="checkbox"/> Add this title <input type="checkbox"/> Delete this title</p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Accelerators</td> <td style="width: 33%;"><input type="checkbox"/> Condensed Matter</td> <td style="width: 33%;"><input type="checkbox"/> History</td> </tr> <tr> <td><input type="checkbox"/> Astrophysics</td> <td><input type="checkbox"/> Education (pedagogy, etc.)</td> <td><input type="checkbox"/> Interface/Device</td> </tr> <tr> <td><input type="checkbox"/> Atomic</td> <td><input type="checkbox"/> Environmental/Energy</td> <td><input type="checkbox"/> Molec/Polymer</td> </tr> <tr> <td><input type="checkbox"/> Biological/Medical</td> <td><input type="checkbox"/> Fluid Plasma</td> <td><input type="checkbox"/> Nuclear/Particle</td> </tr> <tr> <td><input type="checkbox"/> Chemical/Statistical</td> <td><input type="checkbox"/> General</td> <td><input type="checkbox"/> Optics/Optical</td> </tr> <tr> <td><input type="checkbox"/> Computational</td> <td><input type="checkbox"/> Geophysics</td> <td></td> </tr> </table>	<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History	<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device	<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer	<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle	<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical	<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics	
<input type="checkbox"/> Accelerators	<input type="checkbox"/> Condensed Matter	<input type="checkbox"/> History																	
<input type="checkbox"/> Astrophysics	<input type="checkbox"/> Education (pedagogy, etc.)	<input type="checkbox"/> Interface/Device																	
<input type="checkbox"/> Atomic	<input type="checkbox"/> Environmental/Energy	<input type="checkbox"/> Molec/Polymer																	
<input type="checkbox"/> Biological/Medical	<input type="checkbox"/> Fluid Plasma	<input type="checkbox"/> Nuclear/Particle																	
<input type="checkbox"/> Chemical/Statistical	<input type="checkbox"/> General	<input type="checkbox"/> Optics/Optical																	
<input type="checkbox"/> Computational	<input type="checkbox"/> Geophysics																		

Highlights from Spring CSWP Activities



CSWP Chair Dr. Bev Hartline presents award to Dr. Brian Schwartz for distinguished service to the COE, COM and CSWP.



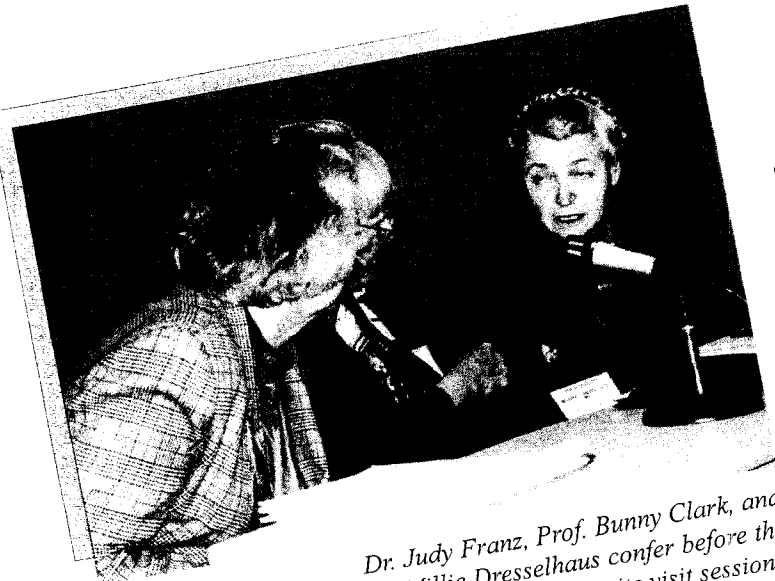
COM Chair Dr. Joan Frye outlines COM programs.



Prof. Juana Acrivos addresses the joint COM/CSWP reception in San Jose.



Mary Ellen Hunt and Sheila Tobias lead a workshop and luncheon for Three Generations of Women in Physics.



Dr. Judy Franz, Prof. Bunny Clark, and Prof. Millie Dresselhaus confer before the site visit sessions.

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
Current Interest (check up to 4 in each column)	Highest Degree		
1 ___	1 ___	1 ___ Full-time Studies	Please check four numbers from the list below of the activities in which you engage most frequently.
2 ___	2 ___	2 ___ Part-time Studies	
3 ___	3 ___	3 ___ Part-time Studies/Employment	
4 ___	4 ___	4 ___ Post Doc./Res. Assoc.	
5 ___	5 ___	5 ___ Teaching/Precollege	
6 ___	6 ___	6 ___ Faculty, tenured	
7 ___	7 ___	7 ___ Faculty, non-tenured	
8 ___	8 ___	8 ___ Long-term/Permanent Employee	
9 ___	9 ___	9 ___ Inactive/Unemployed	
10 ___	10 ___	10 ___ Retired	
11 ___	11 ___	11 ___ Self-employed	
12 ___	12 ___	12 ___ Other (please explain)	
13 ___	13 ___	_____	
14 ___	14 ___	_____	
15 ___	15 ___	TYPE OF WORKPLACE FOR CURRENT OR LAST WORK	1 ___ Basic Research 2 ___ Applied Research 3 ___ Development and/or Design 4 ___ Engineering 5 ___ Manufacturing 6 ___ Technical Sales 7 ___ Administration/Management 8 ___ Writing/Editing 9 ___ Teaching - Undergraduate 10 ___ Teaching - Graduate 11 ___ Teaching - Secondary School 12 ___ Committees/Professional Org. 13 ___ Proposal Preparation 14 ___ Other (please specify) _____ DEGREE TYPE (Highest) 1 ___ Theoretical 2 ___ Experimental 3 ___ Both 4 ___ Other (please explain) _____ _____
16 ___	16 ___	1 ___ University	
17 ___	17 ___	2 ___ College - 4 year	
18 ___	18 ___	3 ___ College - 2 year	
19 ___	19 ___	4 ___ Secondary School	
20 ___	20 ___	5 ___ Government	
21 ___	21 ___	6 ___ National Lab	
22 ___	22 ___	7 ___ Industry	
23 ___	23 ___	8 ___ Non-Profit Institution	
24 ___	24 ___	9 ___ Consultant	
25 ___	25 ___	10 ___ Other (Please explain)	
26 ___	26 ___	_____	
27 ___	27 ___	_____	
28 ___	28 ___	_____	
29 ___	29 ___	_____	
30 ___	30 ___	_____	
99 ___	99 ___	_____	

APS Membership Information

Are you an APS member?:

No Check here if you wish to receive an application -

Yes Please provide your APS membership number, if available, from the top left of an APS mailing label:

Office Use Only

Date of entry: _____

Roster#: _____

Initials _____

Thank you for your participation. The information you have provided will be kept strictly confidential and will be made available only to CSWP and COM members and APS liaison personnel. Please return this form to the address on the reverse side.

The American Physical Society - ROSTER ENROLLMENT FORM

The Roster is the basis for statistical reports on women and minority physicists; mailing lists corresponding to announcements, and publications of the APS Committee on the Status of Women in Physics (CSWP) and Committee on Minorities (COM); and confidential searches. The Rosters will not be made available to commercial or political organizations as a mailing list, and all information provided will be kept strictly confidential. Although the Roster is employed to serve women and minority physicists, enrollment is open to anyone interested in issues affecting these groups. Please give a copy of this form to others who might be interested in joining the Roster, or in receiving the newsletters.

Please complete all entries on BOTH SIDES OF THE FORM and indicate changes if this is an update of a previous entry. After completing this form, please return to:

The Roster of Women and Minorities in Physics ♦ The American Physical Society ♦ One Physics Ellipse ♦ College Park, MD 20740-3844

Please indicate whether you are interested in receiving:

- The *Gazette*, CSWP (women's) newsletter
 C.O.M....MUNICATIONS (minorities) newsletter Employment Announcements

Is this a modification of an existing entry?:

- yes no not sure

NAME: _____
(last) (first) (middle)

Previous last name (if applicable): _____ Date of Birth ____ / ____ / ____

GENDER:
 Female
 Male

Ethnic Identification

- Black Native American Caucasian (Non-Hispanic) Other (please specify) _____
 Hispanic Asian or Pacific Islander

Mailing Label Information (Foreign addresses: Use only the first three lines, abbreviating as necessary.)

In this section, please print information exactly as it is to appear on your mailing label. Where boxes are provided, print one character within each box, abbreviating where necessary.

NAME AND TITLE

ADDRESS Line 1:

ADDRESS Line 2:

ADDRESS Line 3:

CITY/STATE/ZIP

Daytime Phone - -

Fax or email Number: _____

Educational Background

Degrees	Year Received (or expected)	Name of Institution
BA or BS	_____	_____
MA or MS	_____	_____
Ph.D.	_____	_____
Other _____	_____	_____

Thesis Title (Highest Degree) (Abbreviate to 56 characters total)

PLEASE REMEMBER TO COMPLETE SIDE II OF THIS FORM

ANNOUNCEMENTS

Spring of 1995 was an active one for the Committee on the Status of Women in Physics. At the March Meeting of the APS in San Jose, California, the CSWP held its biannual meeting, co-hosted a reception with the Committee on Minorities, hosted a luncheon for three generations of women in physics, organized a breakfast for women physicists in industry, and sponsored a session on the Improving the Climate for Women in Physics Site Visits Program. At the April Meeting in Washington DC, the CSWP repeated the Site Visits session (co-hosted at this meeting by the APS Forum on Education and the Forum on Physics and Society). This session was followed by a reception, also co-sponsored by COM.

We invite you to get involved in future CSWP activities — please contact either CSWP staff liaison Tara McLoughlin or the contact listed with each activity for more information.

CSWP Meeting

The following announcements of items generated at the March CSWP meeting may be of interest to *Gazette* readers who want to get more involved in CSWP programs:

1. The Committee has formed three new **subcommittees** — education, industry and international. If you are interested in contributing to these areas, please contact the following CSWP members for more information or to volunteer:

International — Charlotte Elster (Ohio University) elster@stingray.phy.ohiou.edu

Education — Kenneth Krane (Oregon State University) kranek@physics.orst.edu

Industry — Gerard Crawley (Michigan State University) 21523GMC@msu.edu

2. The APS is planning its **Centenary celebrations** for 1999 in Atlanta. Nina Byers (University of California, Los Angeles) is coordinating the effort to research women's contributions to twentieth century physics (**see article page 3**). For more information, or to share your ideas on this project, please contact Nina at byers@uclahep.physics.ucla.edu.

3. The CSWP is planning to publish a list of speakers willing to give talks on the **Site Visits Program**. Ideally, speakers should have gone on two or more visits. For more information, or to be included on this list, please contact Tara McLoughlin at APS (tara@aps.org).

4. Add your name to the **Colloquium/Seminar Speakers List** — via the World Wide Web! The APS home page now supports an interactive application form for the CSSL. Contact <http://aps.org> and look under Recent Additions.

5. **Nominate a woman for APS Fellowship!** (see article, page 11) For more information contact Ken Cole at 301-209-3268 or cole@aps.org.

6. The deadline for receipt of nominations for this year's **Maria Goeppert-Mayer Award** is September 1. Send all nominations to MGM Award Committee Chair Prof. Melissa Franklin, Harvard University, Dept. of Physics, Cambridge, MA 02138.

Subscribe to WIPHYS, the moderated Internet list for Women in Physics!

- Send a message to listserv@aps.org
- Leave the subject line blank, text of message:
subscribe wiphys
- Send messages for posting on the list to wiphys@aps.org