

Association for Women in Mathematics

Volume 15, Number 6

NEWSLETTER

November-December 1985

DUES! DUES! DUES! DUES! DUES! DUES! Dues were due on October 1st. If you haven't sent yours in yet, please do so as soon as possible. Ask a colleague or friend to join. Give a subscription to a student. Encourage your institution to join. Consider becoming a contributing member. DUES! DUES! DUES! DUES! DUES!

PRESIDENT'S REPORT

Laramie meeting. The summer meeting of the Joint Mathematical Societies was held in Laramie, Wyoming, at the University of Wyoming, August 11-August 15, 1985. It was a relatively small meeting. AWM's activities were well attended.

Panel. AWM sponsored a panel on "Ethical Problems in Mathematical Life." The speakers were Anne Leggett, Loyola University of Chicago; M. Susan Montgomery, University of Southern California; Marion Pour-el, University of Minnesota; Jean Taylor, Rutgers University and Gail Young, University of Wyoming. The topics covered a broad range of subjects. Jean Taylor mentioned the fact that the AMS has an ethics committee to which problems may be addressed. Susan Montgomery pointed out that it is acceptable to request an editor not send a paper to a particular referee. The whole tenure procedure was discussed by Gail Young; he has many years of experience in dealing with tenure problems and has offered to serve as a consultant to any AWM member. He points out that the earlier one begins to deal with one's tenure situation, the better, and that there are some aspects which are inherently "unfair". Anne Leggett discussed dealing with students, and Marion Pour-el discussed her colleagues' attitudes to the ERA. The question of how the "star wars" policy affects the mathematical community and the ethical questions raised by it was brought up in the question period. I hope that the real outcome of the panel is an attitude that emphasizes further open discussion of these issues.

Party. Our party was, as usual, a great success. It was held in the Laramie Art Museum, in the main gallery.

Business meeting. The question of child-care at meetings was brought up at the January meeting. The logistics of making such arrangements are complicated. Sylvia Weigand has agreed to serve as coordinator at meetings she attends, and has agreed to help brief someone else for those she doesn't. Please get in touch with her if you want to make child-care arrangements. The rules vary from state to state, but it may be possible to set up babysitting pools as we do room-sharing.

Colloquium lectures. For the second time in sixty years, the Colloquium lectures were presented by a woman. This time the speaker was Karen Uhlenbeck. She gave a fascinating set of lectures on Mathematical Gauge Field Theory. Her approach was very intuitive, focussing on how to think about the problems.

Julia Robinson. Five years ago Julia Robinson was the first woman to give the Colloquium lectures in more than fifty years. It is sad to report that just two weeks before the summer meeting, Julia Robinson died. She was a fine mathematician and was a role model for all of us, in the best sense of the word. Real recognition came to her late in life. The AWM will sponsor a program, jointly with the AMS and MAA, at the January meeting in New Orleans, dedicated to her memory.

Linda Keen
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REMEMBERING JULIA ROBINSON

by Lenore Blum, Mills College, Oakland, California and Mathematical Sciences
Research Institute, Berkeley CA
Excerpts will appear in an article compiled by Constance Reid for the Notices
of the AMS.

Julia Robinson was a "role model" for many of us, long before we understood what that expression meant. I don't know what subliminal effect Julia's existence had on my studying algebra and logic in graduate school, but I do know it greatly influenced my decision to come to Berkeley in 1968 after receiving my degree. You can imagine my surprise when I arrived in Berkeley that fall to learn that the woman whose papers I had read that had always been addressed "Berkeley, California" was not on the UC faculty!

During the early 1970's, when the Association for Women in Mathematics was actively working to change this situation in mathematics departments across the country, we felt encouraged by Julia's support. It was difficult, however, to maintain the delicate balance of acknowledging Julia's existence and her obvious symbolic importance to us, on the one hand, while at the same time respecting her desire to remain out of the limelight. This began to change in 1976.

Julia's election to the National Academy of Sciences in 1976 opened the way for institutions and associations to award her position and recognition long overdue. And clearly these events helped Julia move into the limelight. By accepting the presidency of the American Mathematical Society (AMS), Julia knew she would be thrust into the role of public person, and she rose to the occasion. But also, on a more personal level, this public recognition, I believe, helped Julia acknowledge the significance of her own contributions to mathematics.

In this regard, I feel privileged to have been able to witness a side of Julia that I think many other mathematicians rarely had a chance to see. One particular encounter stands out vividly:

Sometime after Julia became president of the AMS, we arranged to meet for lunch with Nancy Kreinberg of the Lawrence Hall of Science to discuss ways of encouraging girls and women in mathematics.

I remember arriving at the Women's Faculty Club at Berkeley a bit early, just as the noontime bells were beginning to ring. Julia was already there. Sitting in one of those high-backed Victorian chairs, wearing a bright floral dress, she looked quite majestic. I sensed a special occasion. As I came up to greet her,

she broke out into one of her broad impish grins. "Guess what?" she said excitedly. "I have some great news to tell you!" With obvious delight she continued, "I've just been awarded the MacArthur prize - for my part in solving Hilbert's tenth problem!"

To celebrate, we ordered a bottle of champagne. I can't remember now the details of our conversation. But I do remember clearly the warmth of three women thoroughly enjoying each others' company, sharing feelings of excitement, triumph and plans for the future. And, by the end of the meal, after several rounds of toasts, we had very nearly finished the bottle of champagne.

Later, when I mentioned this lunch to a friend in the Berkeley Math Department, he protested, "But don't you know? Julia Robinson never drinks!"

I appreciate that Julia included me in her joy. It's a way in which I will always remember her.

LETTER FROM THE EDITOR

When I received my dues notice from AWIS (the Association for Women in Science) recently, I was asked to pass on a brochure to a colleague who ought to join. I figure they won't mind if instead I pass on the information to my 1500 dearest mathematical friends! The organization is worthwhile; the newsletter is very good.

from the brochure:

The women's rights and civil rights movements, a growing awareness of the magnitude of sex discrimination in the professions, and personal experiences of unequal opportunities led the founders of AWIS to organize. After six years of preliminary meetings under the leadership of G. Virginia Upton, AWIS was officially founded in April 1971 in Chicago, Illinois by 40 biomedical scientists who attended the meetings of the Federation of American Societies for Experimental Biology.

AWIS supports the enforcement of the civil rights of women and minority persons. AWIS affirms the intrinsic ability of women to function as professional scientists at a level of competence equal to that of men and the necessity to take a firm public stand on matters of discrimination which affect the careers of women.

The AWIS Newsletter is the official publication of AWIS. The Newsletter reports bimonthly on actions of the Executive Board, activities of AWIS committees and chapters, views of AWIS members, current feminist literature, grant application deadlines, civil rights issues and laws, statistics on the status of women in the professions, employment opportunities, and meeting dates and locations.

The Legislative Task Force (LTF) is AWIS's observer and voice in Washington, D.C. It is concerned with both the legislative process and administrative decision making. The LTF comments on pending legislation and drafts legislation for future consideration. In this way we keep the concerns of women scientists in the forefront.

The LTF has provided testimony and input to math/science education bills, budgets for women in science programs, research budgets and employment issues affecting members. The LTF also participates in coalitions with other women's organizations that have mutual concerns with AWIS.

The LTF has an educational function, too. It informs members of the necessity of political action to further the goals of AWIS and provides the means. AWIS Legislative Alerts are distributed by the LTF. The Legislative Alerts are designed to provide current information on legislation affecting women scientists. Members wishing to receive the Legislative Alerts should write the national AWIS office.

The AWIS Registry is a data base of several thousand women in science and engineering. It has filled hundreds of requests for candidates for jobs, advisory panels, speaking assignments, and other projects involving women in science. The

Registry needs women scientists even if they are not seeking employment or participation in an advisory panel. Dr. Anne Briscoe, Past President of AWIS, points out, "The Registry as a whole will document the numbers and the quality of women in science. The Registry will answer the backlash against affirmative action." To be included on the Registry, write the national AWIS office for an application form. Membership in AWIS is not required to join the Registry.

The AWIS Educational Foundation was founded and incorporated in 1974 to provide scholarships and financial support for conferences. The Foundation, in 1978, acted as cosponsor with the NY Academy of Sciences to present a conference entitled "Expanding the Role of Women in the Sciences." Longstanding commitments include four annual awards, \$500 each, made to predoctoral students in science. One of the awards, the Luise Meyer-Schutzmeister Memorial Award, is specifically for women pursuing a doctorate in physics. Applications for scholarships are available from Sept. 15 to Dec. 15. The deadline for receipt of applications is Jan. 15. For further information on the AWIS Educational Foundation, write the national AWIS office. The AWIS Educational Foundation is supported by donations from the membership and friends in the community. If you are interested in making a donation, please make your check payable to the AWIS Educational Foundation.

AWIS Local Chapters. Meeting other women in science and sharing ideas on a regular basis helps to decrease the feelings of isolation some women experience in their fields. Career development workshops, poster sessions, educational meetings, monthly newsletters and social events are all part of the AWIS chapters' programs. AWIS supports chapters in all of the following areas: Alaska, Baton Rouge, Buffalo, Central Ohio, Central Wisconsin, Chicago, Dayton, Colorado, Delaware, East Tennessee, The Gulf Coast, Hawaii, Indianapolis, Los Angeles, Metro New York, Minneapolis/St. Paul, New England, Long Island, Oregon, Richmond (Virginia), San Francisco, Stillwater, Texas A&M University, and Baltimore/Washington. If you do not see a chapter in your area, you may want to consider starting a chapter. For more information on the chapter in your area or starting a local chapter, write the national AWIS office.

Dues are on a sliding scale based on income. Write AWIS, 1346 Connecticut Avenue, NW, Suite 1122, Washington, DC 20036, for an application form.

AWIS, Chicago Area Chapter, along with the Chicago Museum of Science and Industry, has organized an exhibition called "My Daughter, the Scientist." The three sections are about contemporary women scientists, social barriers faced by girls and women, and the history of women in science and science as a career for women. 12 role models from different areas of science are featured: biographical information is included as well as personal and professional artifacts, an interactive device based on the person's field and a videotape. A timeline marks the contributions of women to science. Included are historical artifacts, a section about career opportunities in science concentrating on the non-traditional ones, and a computer trivia quiz about women scientists.

The exhibit opened in Chicago June 1 and continued through September 2. The exhibit went on tour at the end of Sept. 1985. The schedule is Oct.-Dec. 1985 at the Science Museum of Minnesota, St. Paul, MN; Feb.-Apr. 1986 at the California Museum of Science and Industry, Los Angeles; June-Aug. 1986 at the Fort Worth Museum of Science and History, Fort Worth, TX; Oct.-Dec. 1986 at the Franklin Institute, Philadelphia, PA; Feb.-Apr. 1987 at the Science Museum of Charlotte, NC; June-Aug. 1987 at the Center of Science and Industry, Columbus, OH; and Oct.-Dec. 1987 at the Museum of Science, Boston, MA.

Somehow I never got around to going while it was here in town; I'll have to wait and see it in Columbus in the summer of '87 when I visit my family. I hope someone who has seen it or will see it sooner than that will write it up for the *Newsletter*.

Jeanne-Marie Silk, Montclair, NJ has sent me a couple of articles from the *National Enquirer*, August 13, 1985. One is titled "Want Your Daughter to Succeed? Send Her to an All-Girl College." It reports on some research of Dr. Elizabeth

Tidball, professor of psychology at George Washington University Medical Center. Another article, with the logo "Women at the Top," reports on a woman who owns a marine construction and diving firm and who has been very successful. Both these articles are very positive. On the other hand, filler impossible to miss near the second article is a quote from Vincent Van Gogh: "A woman who is not in love is like an unlighted lamp." (In case you're wondering, the body of the first article calls them "women's colleges.")

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AMS STATEMENTS

These statements were received too late for inclusion in the last *Newsletter*.

Herbert Clemens, University of Utah

To insure the future health of research mathematics in the United States, the AMS should take advantage of the current groundswell of public concern for primary and secondary education. In particular, the Society should support efforts to create a body of research mathematicians competent to teach at the primary and secondary level, so that the research mathematical community can speak persuasively, realistically, and with political sophistication on an issue vital to its future.

Daniel Gorenstein, Rutgers University

For many years I have felt that the general mathematical community and the AMS, in particular, did not make sufficient effort to publicize the contributions of mathematics to science and society, and that this placed mathematics at a decided disadvantage with respect to the other sciences, which were lobbying hard to obtain support for their disciplines.

It is only in the past few years as the underfunding of mathematics became increasingly apparent that concerted action by the Society and the National Research Council was at last undertaken. The David Report represents the most significant outcome to date of that endeavor. Its broad coverage has had a definite impact, especially within the National Science Foundation and other government agencies, but has also served to increase the awareness of academic administrators of the difficulties their mathematics faculties are encountering in obtaining external support for their research.

However, I regard the David Report as only a first (major) step, and believe that to attain the appropriate level of funding for mathematics--both in terms of research and education--a sustained effort of public consciousness-raising will be required for the foreseeable future.

AWM ELECTION

The Nominating Committee chose the following candidates: President-Elect - Rhonda Hughes, Bryn Mawr College; and Members-at-Large - Lisa Goldberg, Brooklyn College; Rebecca Herb, University of Maryland; and Tilla Klotz Milnor, Rutgers University. No additional candidates were nominated by the membership. Statements from the candidates follow. The ballot appears on page 19 and is due December 1.

Rhonda Hughes

Since its beginning, the AWM has continued to find new ways to insure fair treatment for women in mathematics, to celebrate the achievements of women mathematicians, past and present, and to encourage young women interested in mathematical careers. The AWM is in large part responsible for making mathematics one of the few sciences in which women occupy numerous positions of leadership in its professional organizations; at the same time, the AWM has continued to serve the needs of young women and graduate students who may look to it as a symbol of support and a means of establishing contacts and making friends, as I did several years ago.

As the next president of the AWM, I would work responsibly to maintain the role of the AWM as an organization that fosters both research and teaching, organizes conferences and symposia of value to the entire mathematical community, and presents mathematics as a viable career choice to young women. I am committed to the fine projects begun by my predecessors: the *Newsletter*, regional meetings, panel discussions at major meetings, the Speakers' Bureau. I am also interested in finding new ways to involve our vast membership, especially the "next generation" of AWM, more fully in its activities. I plan to explore the possibility of a doctoral or postdoctoral fellowship sponsored by the AWM, and am particularly interested in the position of minority women. I would, as have past presidents, make their concerns a priority.

Rebecca Herb

I am an associate professor at the University of Maryland, College Park. My field of research is representation theory and harmonic analysis on Lie groups. I have been a member of the AWM for approximately 10 years, but have not previously held any office.

Tilla Klotz Milnor

Biography: Ph.D. (1959) NYU. Research interests, differential geometry of immersed surfaces. Permanent positions, UCLA (instructor-associate professor) 59-68, Rutgers University (professor) since '70. Chaired Douglass College math department 70-73, 78-80. Editor for *AMS Transactions*; AWM Committee to choose Emmy Noether Lecturer.

Statement: Women are a small minority in the mathematical population. While numerous social and institutional barriers to equal opportunity have disappeared over recent years, the obstacles remaining can be subtle (especially those within ourselves). AWM brings us together for mutual support, reminds us of our mathematical strengths and accomplishments, encourages us to higher aspiration, and makes the world aware of all we have to offer. I hope that AWM will continue to represent our professional concerns, working always for the health and vitality of the entire mathematical community.

ROOMMATE MATCHING SERVICE

Very few women have contacted me about finding a roommate. Only two women contacted me about the Louisville meeting (1984), and three women contacted me about the Anaheim meeting (1985). If you want help in finding a roommate for New Orleans, write me. If anyone else writes me, I'll put you in touch with her. You should give me the following information: name, address, phone numbers (work and home), dates of arrival and departure, and whether you smoke.

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1. Mathematical logic and foundations
2. Algebra
3. Number theory
4. Geometry
5. Topology
6. Algebraic geometry
7. Complex analysis
8. Lie groups and representations
9. Real and functional analysis
10. Probability and mathematical statistics
11. Partial differential equations
12. Ordinary differential equations and dynamical systems
13. Mathematical physics
14. Numerical methods and computing
15. Discrete mathematics and combinatorics
16. Mathematical aspects of computer science
17. Applications of mathematics to nonphysical sciences
18. History of mathematics
19. Teaching of mathematics

Second Announcement: The Second Announcement of ICM-86 will describe all activities of the Congress in detail, and provide instructions on how to complete the preregistration process and obtain accommodations. It will provide more, although not complete, information on the scientific program, and give instructions regarding the submission of abstracts of short communications and the organization of informal seminars. Advice will be given on how to proceed upon arrival at either the San Francisco or Oakland International airports. Full descriptions and prices will be given of the available day trips and pre- and post-Congress tours; preregistrants will be given the opportunity to purchase these in advance.

INSTITUTE FOR RETRAINING IN COMPUTER SCIENCE (IFRICS)

Clarkson University, Potsdam, New York

Kent State University, Kent, Ohio

Auspices ACM/MAA Joint Committee on Retraining for Computer Science

The IFRICS program was established to help meet the critical shortage of college teachers of computer science by retraining faculty from other disciplines such as mathematics to teach a major portion of the ACM '78 core curriculum in computer science. The instruction takes place during two consecutive summers with an intervening year project. Faculty for the Institute are recruited from among the top computer science departments in North America. During its first three summers of operation the institute has enrolled 214 participants representing 180 schools from 42 states and 6 foreign countries.

Dates: Clarkson University June 2, 1986 - August 1, 1986

Kent State University June 16, 1986 - August 15, 1986

Further information and application forms may be obtained by writing Linda Henry, Associate Director, Institute for Retraining in Computer Science, Dept. of Math. & Computer Science, Clarkson Univ., Potsdam, NY 13676. (315) 268-2382.

CHILDREN'S TELEVISION WORKSHOP: SERIES ON MATHEMATICS

press release

The Children's Television Workshop (CTW), creator of Sesame Street, The Electric Company, and 3-2-1 Contact, has assembled \$16 million--the largest sum ever raised for a single children's television project--and will begin production immediately on a new, daily mathematics series aimed at the nation's 14 million 8-to-12-year-olds.

The daily half-hour program, as yet untitled, is scheduled to premiere in January 1987. Funders include the National Science Foundation, the Corporation for

Public Broadcasting, the U.S. Department of Education, The Andrew W. Mellon Foundation, The Carnegie Corporation of New York and IBM, which is the sole corporate underwriter.

Joan Ganz Cooney, president of CTW, noting that our society's dependence on technology makes it increasingly important that all youngsters have solid grounding in mathematics and science in order to participate in the full range of opportunities available to them in their adult lives, said: "The crisis in mathematics education has been widely recognized in this country. Our new math series represents a national effort to do something about it, and we are proud to be part of a broad partnership of government agencies, public broadcasting, foundations and IBM to use the proven value of educational television to address this problem."

The new math series, coupled with CTW's science series, 3-2-1 Contact, will make it possible for millions of youngsters to spend a full hour each day with mathematics and science in a form which will supplement what they learn in the classroom setting. CTW expects that 3-2-1 Contact and the math series will be offered by PBS to member stations as a daily one-hour block.

David Connell, original executive producer of Sesame Street and The Electric Company, is executive producer of the math series. He has assembled a panel of nationally prominent mathematicians and mathematics educators to serve as advisors, and they have provided input at every stage of the project's development.

"Our primary goal is to promote interest in and enthusiasm for mathematics," says Connell. "We'll not only introduce mathematical concepts, but we'll also show youngsters how mathematics relates to them, how it can be used to cope with everyday problems, and how it can help solve them."

Connell says the series' goals are:

1. to promote interest in and enthusiasm for mathematics by developing positive attitudes towards mathematics;
2. to encourage the use and application of problem-solving processes and problem-solving tactics; and
3. to present a host of mathematical topics--like numbers and counting, arithmetic, measurement and graphic representation which are traditional for 8-to-12-year-olds in schools as well as algebra, probability and statistics, geometry and topology, and infinity which are new to most 8-to-12-year-olds--in an interesting, accessible and meaningful way.

The format of the series will be based on television parody. "Our premise is that almost every child is television literate. We're simply using that fact to promote mathematics literacy," Connell noted. Each day's program will be in a magazine format enhanced by music, electronic effects, and animation. The show will feature a repertory company of actors and actresses who perform skits that parody the programs children regularly watch on TV, from game shows to situation comedies, from weather forecasts to station breaks.

Five half-hour test programs will be produced during the next few months. Production of 75 programs designed for viewing at home and in the classroom will begin early next year. Teachers will have permission to record the series off the air for showing in the classroom at a convenient time, and advance information will be provided to teachers and children to facilitate their use of the series.

"Sesame Street addressed school readiness, The Electric Company focused on reading readiness, 3-2-1 Contact highlighted science and technology, and the math series tackles children's attitudes and motivation in relation to mathematics," Mrs. Cooney said. "None of these series can replace teachers or offer complete solutions, but television can and should supplement classroom activities, and that is our aim."

selected statements by the underwriters:

IBM, Dr. Lewis Branscomb, Vice President and Chief Scientist:

The biggest educational challenge facing our country today is *not* the relatively simple problem of training enough engineers and scientists for high-technology industry. It is giving all young Americans the kind of education that

allows them to be full participants in the world of the future--where working smarter, not harder, will be the watchword.

Americans have just begun to realize we have a serious problem in the motivation and education of our young people. Not a superficial problem, not one of pride or showmanship in a space adventure, this is a practical, at-home, jobs-related, productivity-related problem of technical and intellectual muscle in our economy.

More than ever, this country will need citizens who possess the analytical and problem-solving skills to figure out what is, or is not, fact--and what might, or might not, work.

Marshall McLuhan once said that kids resent school because it interferes with their education.

That wasn't just an irreverent cynicism. Five years ago, a study by the U.S. Department of Commerce Technology Advisory Board found that innovative individuals, particularly in the sciences, do not regard the formal part of their schooling as the primary source of their inspiration. The report urged more extensive use of mathematics and science programming on TV, to motivate young people and their parents, and introduce children to basic concepts at an early age.

Nothing can replace a truly professional teacher. But the real chemistry happens when a dedicated teacher, a curious kid and supportive parents have access to skillful television programming (or perhaps a marvelous museum).

Poet Robert Frost once said, "My interest in young people is in rumpling their brains, as you might rumple a good head of hair."

That is IBM's interest, too, and we're confident that this new workshop series will rumple a good many young brains--just as programs like Sesame Street, The Electric Company and 3-2-1 Contact have for years."

U.S. Department of Education, Dr. Frank Withrow, Director,
Division of Technology, Resource Assessment and Development:

Our association with Children's Television Workshop has spanned almost two decades. The impact upon early childhood education through Sesame Street and CTW allowed us to make a lasting impact on children around the world. The programs developed by CTW have created a world standard for children's television but more importantly, they have created a quest for knowledge among children.

There is always some anxiety in launching a new venture of this size and scope. For one thing it takes a long time for our programs to bear fruit. In the long run what we are doing today will impact upon the very quality of our society, a society that more than ever requires all citizens to understand the principles of mathematics.

Carnegie Corporation of New York, E. Alden Dunham, Program Officer:

Carnegie Corporation of New York is delighted to join with other funders in supporting Children's Television Workshop's exciting new mathematics series for two reasons. First, the series is a creative response to national needs in mathematics education and at the same time addresses the Corporation's interests in young children, science and mathematics, and in realizing the potential of television in education.

The second reason for our pleasure in participating in this venture is that it continues the long and productive association Carnegie Corporation has had with the Workshop since its inception. Twenty years ago the Corporation sponsored Joan Ganz Cooney's feasibility study for what eventually became Sesame Street and the Children's Television Workshop organization and subsequently provided \$3.7 million in support of Sesame Street and The Electric Company. The new mathematics series continues a distinguished tradition in educational television."

The Andrew W. Mellon Foundation, John Sawyer, President:

In response to the urgent need and widespread efforts to improve the quality of learning in American schools, The Andrew W. Mellon Foundation has been pleased to join others in funding CTW's public television series on mathematics for school

children. CTW's talents and performance record offer high promise of an effective new vehicle directed to this purpose. Although the Foundation is a rare participant in PBS programming, we have gladly joined in this project in light of its importance and the experience and professional skills CTW can bring to the task.

National Science Foundation, George W. Tressel,
Program Director, Informal Science Education Program:

In 1975, the National Science Foundation commissioned three major examinations of the state of United States education in mathematics and science. The resulting 7 volumes began the long series of studies that now point to a so-called crisis in the quality of mathematics teaching and curriculum...at the very time when our country is faced by intense competition from other technological societies. This is why the Children's Television Workshop mathematics program has such great significance.

Mathematics is the language of every science and technology; we desperately need to encourage children to learn this language. The CTW project promises to reach many millions of children...to provide them with critical concepts and skills, and an enthusiasm for problem-solving...at a time when they are most impressionable and eager to learn. No other tool has the potential to impact so many children at this critical age nor to do so at a cost of pennies per lesson.

Corporation for Public Broadcasting, Sonia Landau, Chairman of the Board:

There are many other children's educational efforts by CPB but nothing that approaches what has been announced here today. In my opinion this project is the most important since Sesame Street.

Earlier this year the CPB Board of Directors passed a resolution renewing our commitment to children's television as our number one priority. We also increased funding to back it up. I am pleased that this new series is the first recipient of that increased funding.

Television does not replace teachers. But study after study has show that television *does* teach. That is why the Corporation for Public Broadcasting is committed to providing the best classroom and at-home programming possible. We believe helping to educate our children is the most important thing television can do.

U.S.-SOVIET PROFESSIONAL EDUCATORS PROGRAM

press release

- * How do children learn reading, writing, and arithmetic?
- * How is bilingualism maintained in the USSR?
- * What kind of research preceded the current reforms of the Soviet educational system?
- * How are research results disseminated to pedagogical establishments, and how are they ultimately adapted for classroom use?

American educators, curriculum planners, and academic professionals will soon have the opportunity to discuss these and many other questions with their Soviet counterparts. Citizen Exchange Council's annual educators' exchange departs for a 16-day program on March 7, 1986. The itinerary includes meetings in Leningrad, Simferopol, Yalta, Kishinev, and Moscow.

The Soviet educational system is guided by the USSR Academy of Pedagogical Sciences, which has thirteen institutes and a network of experimental schools and classes. Representatives of the Academy will brief the American group and answer questions.

This program has been organized by Claudia Zaslavsky and Lotus Dix-Jones in cooperation with CEC, a non-profit cultural exchange organization dedicated to increasing US-Soviet understanding. Ms. Zaslavsky, who has a Masters degree in mathematics, has pursued doctoral studies in mathematics education. This is her fourth educators' tour of the USSR and the second that she has organized. Ms. Jones is a doctoral candidate in psychology at the City University of New York. As an educational consultant, she has developed teacher training materials and conducts tutoring and mathematics workshops.

The program's all-inclusive cost is \$2069 per person. CEC invites all educational professionals to participate. For more information, write: CEC, 18 East 41st Street, New York, NY 10017. Phone: (212) 889-7960.

STATISTICS CAREER BROCHURE

The American Statistical Association's Committee on Women in Statistics brought out a brochure in 1984. "Statistics as a Career: Women at Work" was prepared to foster an awareness of career opportunities in statistics and to encourage high school and college women to enter the field.

The initial distribution of approximately 80,000 brochures went to high school mathematics teachers, guidance counselors and principals in the United States and Canada, and to undergraduate departments in fields related to statistics. The response was overwhelming! Requests for over 250,000 brochures were generated. Donations paid for the initial printing and distribution; ASA has covered the additional cost of this unanticipated high level of demand.

To obtain copies, write to the Committee on Women in Statistics, ASA, 806 15th Street, NW, Washington, DC 20005.

JUNIOR YEAR AT DOUGLASS PROGRAM IN WOMEN'S STUDIES: AN UPDATE

The Junior Year at Douglass Program in Women's Studies is now entering its third year. During this time, students from colleges around the country have come to Douglass for a year of intensive study about women's lives; they have found Douglass to be a very supportive environment for women and were glad they chose Women's Studies at Douglass for their junior year.

We are now accepting applications for the 1986-87 academic year. Students can apply for financial aid; some scholarship funds are available. Participants can take course work in Women's Studies as well as courses they need to complete major or minor requirements at their home institutions. In addition, students may undertake either a research project or an internship placement.

Special career planning workshops for Women's Studies students are available during the fall semester. The workshops offer participants the opportunity to discuss employment options and to look at job survival skills for Women's Studies graduates. The workshop participants include junior year students as well as regularly-enrolled Women's Studies students. Career focus booklets have been developed for English and other communication fields and for social sciences; one is being developed for mathematics and the sciences. These booklets are used as texts for the workshops.

The students who come to Douglass also have the opportunity to meet with scholars in the field and to attend special lectures and conferences that are held at Douglass throughout the academic year. In addition to being the home of Women's Studies for Rutgers-New Brunswick, Douglass also houses the Center for the American Woman and Politics. The holder of the state-endowed Chair in Women's Studies also has her office at Douglass. The first holder of the Chair is Dr. Alison Jaggar, a

feminist philosopher from the University of Cincinnati; the second will be Dr. Carol Gilligan, the feminist developmental psychologist from Harvard.

For a brochure and application packet write the director, Dr. Ellen F. Mappen, Douglass College, Voorhees Chapel, New Brunswick, NJ 08903. (201) 932-9197.

ON CAMPUS WITH WOMEN

reprinted from the publication of the same name published by the Project on the Status and Education of Women, Association of American Colleges, 1818 R St., NW, Washington, DC 20009.

Fall 1984

Women Administrators: Recommended But Not Accepted

A national study of the recommendations of search committees for dean and department chair positions found that while the committees have been very supportive of women and minority candidates, administrators have often failed to hire such candidates when they are recommended. The study, done by Betty Fulton, professor of economics and academic administrative associate at Southeast Missouri State University, reviewed 180 searches involving over 10,000 applicants. Women were recommended in 72 (40%) of the total searches, and were chosen in 31 (17.2%) of the completed searches. Minorities were recommended in 50 (27.8%) of the total searches, and were chosen in 19 (10.6%) of the completed searches.

Fulton concluded that "unless the assumption can be made that minorities and women interviewed and recommended are unqualified, college and university administrators responsible for appointments must shoulder the responsibility for failing to increase the percentage of blacks, other minorities, and women in higher education administration." The study appeared in the Fall 1983 issue of the *Journal of the National Association for Women Deans, Administrators and Counselors*. Individual copies of the Fall issue of the *Journal* are available for \$6.00 plus \$1.50 postage and handling from NAWDAC, 1325 18th St., NW, Suite 210, Washington, DC 20036.

Are There Job Differences Between Male and Female Deans?

A new study by the Council of Graduate Schools' (CGS) Committee on Women determined that there are not many job-related differences between the sexes. Male and female deans were similar in terms of age, field of study, previous experience, number of professional staff and job responsibilities. However, there are far fewer female deans than would be expected given the number of women in higher education. Only 11 percent of deans (42 of 377) in CGS member institutions are female, a figure which should be closer to 25 percent of the deans, the report said.

One difference between the sexes noted in the study is one of attitude: male deans viewed themselves as having more authority in six of the eight job duties listed than did the female deans. The study also noted that the vast majority of the deans' professional staff are male, possibly making it difficult for women who would wish to gain administrative experience leading to a deanship.

For a copy of the report, "A Study of the Graduate Deanship: Does Gender Make a Difference?", write to CGS, 1 Dupont Circle, NW, Suite 430, Wash. DC 20036.

Bibliography on Sex Discrimination Available

A *Bibliography on Sex Discrimination, Salary and Tenure in Higher Education Employment Practices* includes entries on discrimination, fringe benefits, sexual harassment, and women faculty, as well as some general articles on salaries and tenure. The 13-page bibliography is available free from the National Center for

the Study of Collective Bargaining in Higher Education and the Professions, Baruch College, CUNY, 17 Lexington Ave., Box 322, New York, NY 10010.

Recruiting and Retaining Women in Math and Science

Women and men often enter higher education with similar backgrounds in mathematics and science, yet far fewer women than men graduate with majors in the sciences. The attrition of females from mathematics and science begins in junior and senior high school and continues throughout the college experience. A Women in Science Program at the University of Michigan was established in 1980 to encourage women to major in and seek advanced degrees and careers in mathematics, science and technical fields. The program offers workshops and conferences, direct counselling and consultation, compilation and dissemination of resource materials, formation of a network of interested scientists, a visiting scientist lecture series, pre-college outreach activities and research on the factors that influence university women in the pursuit of scientific exchange. All of the activities emphasize information exchange, and active encouragement, and access to women role models in the sciences.

The program, based at a university but with activities that extend to the public schools and community, can serve as a model for other institutions that seek ways to encourage more girls and women to pursue studies and careers in the sciences. For more information, write Barbara F. Sloat, Coordinator, Women in Science Program, Continuing Education of Women, University of Michigan, Ann Arbor, MI 48109.

Some Things Change, Some Things Don't: What Women Major in

Despite the fact that many women are still choosing fields traditionally dominated by women, the number of women majoring in engineering has increased dramatically in the last 15 years. In 1967, women were just 2 percent of first-year engineering majors, while in 1981 they were 17 percent, according to a study done by Lewis C. Solmon, assistant dean of the graduate school of education at the University of California at Los Angeles and Joan A. Ruskus, a graduate student there. The study also noted that women made up 52 percent of the freshman business majors in 1981, an increase from 30 percent in 1967. Women were 84 percent of the freshman majors in language and literature in 1981, a decrease of three percent since 1967. Similarly, the percentage of women majoring in education dropped only five percentage points during the same 15-year period.

Male and Female Dropout Rates Equal

Race, sex and income do not seem to play a role in influencing a student's decision to drop out of college, showed a College Board study, *Persistence in Higher Education*. "Contrary to past studies," reported researcher Thomas Hilton, "the patterns of attendance for ... male and female students were, in general, quite similar, with the dropout rates ... being between 16 and 17 percent." Few students were found to abandon higher education for a single reason, and few students dropped out for the same set of reasons, according to the study. Copies of the study are available at \$4 from College Board Publications, Box 886, New York, NY 10101.

Guess Who's Going to College These Days?

...From the Census Bureau

More women than men now attend college, a sharp turnaround from a decade ago, according to a U.S. Census Bureau report issued in May 1984. In 1970, among students under 35, about 1.4 million more men than women were enrolled in college. By 1982, male and female enrollment had evened out at about 5 million each.

But among students age 35 and older, women have outnumbered men in college ever since data for this age group were first collected in 1972. When college students of all ages are considered, women outnumber men and have done so for the past four years.

Men, however, attend school full-time in greater proportion. About 74 percent of the 18 to 24 year-old men in college were full-time students in 1982, compared with 67 percent of the women. Copies of the report, "Population Profiles of the United States: 1982," Series P-23, No. 130 are available free from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Digging For Resources?

The Project on the Status and Education of Women is now selling the new 1984 revised version of *Financial Aid: A Partial List of Resources for Women* at \$2.50 per copy. If you are trying to locate money to finance your education, this updated publication lists scholarships, grants and loans which may be of help. Information on financial aid resources available to older women, minority women, women considering nontraditional careers and others at all levels of postsecondary education is provided.

The booklet includes a resource section which lists books and pamphlets which are helpful in locating money for college. Additionally, there is a brief college guide for students which includes information on what types of institutions and programs are available; how to find out about sources of financial aid on campus and in the community; what to expect from the financial aid process; how to get credit for former courses and "life experience"; and tips on cost-cutting ways to attend school.

For a copy of *Financial Aid: A Partial List of Resources for Women*, send a check or money order for \$2.50 to Project on Women, 1818 R St., NW, Washington, DC 20009. Make checks payable to AAC/PSEW. Bulk rates are available upon request.

Network for Women in Statistics

The Caucus for Women in Statistics has recently published its directory of over 200 members. An independent organization which works closely with other statistical professional societies, the Caucus fosters opportunities for the education, employment and advancement of women in statistics. It also actively promotes the recruitment of women into the profession.

The membership directory is only one of the Caucus' services: it publishes a quarterly newsletter; organizes roundtable discussion groups on issues such as professional development, mentoring and job-sharing; and sponsors technical sessions to promote and present gender-related issues and studies. Membership dues are \$8 per year (\$4 for students and \$10 for couples) and include a copy of the directory. Mail dues to Dick Taeuber, 3100 (225) Conn. Ave., Wash., DC 20008.

Winter 1985

WEEA Reauthorized!

Congress has revised and extended the Women's Educational Equity Act (WEEA) until 1989. The new law, part of the Education Amendments of 1985, increases the amount Congress may appropriate each year for WEEA from \$10 million in 1985 to \$20 million in 1989.

Supporters of WEEA say that the increased appropriation ceiling will make it easier for the Secretary of Education to begin the program of local implementation grants that was introduced into the Act in 1978 but has never been funded. Local implementation grants are designed to ensure that the models developed through WEEA projects are widely disseminated to schools and communities throughout the country. Under the new Act, any money appropriated over \$6 million may be used for the grants at the discretion of the Secretary of Education. Although new WEEA provisions allow Congress to appropriate up to \$10 million in 1985, only \$6 million has been appropriated.

Are Women Being Programmed to Avoid Computers?

Although the number of computer-related jobs in the U.S. is expected to rise to 30 million by 1990, women's participation in this computer explosion could be

limited. The July-August 1984 issue of *Manpower Comments* discusses how women are already far behind men in their exposure to and use of computers.

* A study by the California Department of Education found that girls are only 37 percent of students enrolled in high school computer classes.

* A nationwide poll of 17-year-olds shows that almost twice as many boys as girls take computer programming courses.

* At a recent National Institute of Education Conference on computers in education, it was reported that 93 percent of home computer users are male, and most computer games are designed for boys' tastes.

* Only 23 percent of computer science majors at the University of California, Berkeley are women and the 1980 Census found that only 23 percent of systems analysts and 31 percent of computer programmers are women. The more advanced the computer training, the fewer the women enrolled.

Many researchers believe these discrepancies arise as a result of sex stereotyping. A recent University of Toronto study polled 462 students in a psychology class and found that both women and men feel overwhelmingly that computers would be males if they had a gender. "It is fascinating that this new object, initially devoid of any sex typing, should come so quickly to be clearly sex typed as male in an environment where the issue of equality of the sexes was so highly salient," the Toronto researchers state.

One of the biggest culprits in sex stereotyping of computers seems to be advertising. Karel Vredenburg, one of the four researchers at the University of Toronto, found that computer advertising is overwhelmingly directed at men and boys with 80 percent of actors using computers in ads being male. Vredenburg said this stereotyping coupled with women's reluctance to enter a discipline that has been labeled masculine by their peers, steers women away from computing.

According to Nell Dale, a computer scientist at the University of Texas, although men only slightly outnumber women in introductory computer classes, "the women who get C's drop out," while men continue on. Similarly, Vredenburg thinks that access is not the major issue. He believes it is a matter of women consciously limiting their contact with computers (and being easily discouraged from studying them) because of the anxiety involved in stepping into a male domain, where their success or failure will be judged sharply. The Toronto researchers state, "These data suggest that the study of computers is destined to join the list of disciplines typically avoided by females such as mathematics and science."

More Women Ph.D.'s in 1983 Than Ever Before

The total annual number of new doctorates has changed little since 1977. What has changed is the proportion of men and women earning doctorates within each field. According to figures from the National Research Council, 10,485 women had earned doctorates in all fields in 1982-83, 34 percent of the total. These figures represent all-time highs for women in both number and percent of total doctorate recipients. The number of men earning doctorates decreased by one percent from 1982, continuing a slow decline from the peak years in the early 1970's.

In 1983, in the field of education, women doctorates exceeded the number of men doctorates for the first time for any major field. Education, accounting for over one-third of 1983 female doctorate recipients, continues to be the most populous field for women, the report says. The number of women doctorates in the physical, life and social sciences have consistently increased since 1973, each field increasing by 40 to 50 percent over the 11-year period.

A limited number of "Summary Report 1983, Doctorate Recipients from United States Universities" are available free from the Doctorate Records Project, Office of Scientific and Engineering Personnel, National Research Council, 2101 Constitution Ave., NW, Washington, DC 20418.

Women Are a Growing Component of the Professional Workforce

The 1984 annual edition of *Professional Women and Minorities--A Manpower Data Resource Service* chronicles the increasing participation of women and minorities in the science, engineering and professional populations, calling attention

particularly to the gains made by women. In 1970, women earned 41.5 percent of the bachelor's, 39.7 percent of the master's and 13.3 percent of the doctorate degrees awarded. However, by 1982 women were earning over half of the bachelor's and master's degrees -- 50.3 and 50.8 percent respectively -- and 32 percent of the doctorates.

Although women's proportion of scientists in the labor force is still below their proportion in recent graduating classes, women are now 41 percent of life scientists, 23 percent of chemists, 18 percent of geological scientists, 30 percent of mathematicians and computer specialists, 6 percent of engineers, and 57 percent of psychologists. Their proportions are less in the doctoral population, but are growing.

The growth of women in engineering has been so rapid in the past decade that their five percent proportion in the work force is well below their present proportion among students and graduates. Their share of bachelor's degrees has grown from less than one percent in 1970 to 13.2 percent in 1983; from less than one percent to 9 percent at the master's level, and from .9 percent to 4.7 percent at the doctoral level. The fall 1983 freshman class includes 17 percent women.

In the professional fields, women have substantially increased their proportion of both graduates and, to a lesser extent, the labor force. Women earned 27 percent of the M.D. degrees awarded in 1983 as compared to 1971 when they earned 9.2 percent. Women are now 16 percent of all physicians, 16 percent of lawyers, 27 percent of pharmacists, and 38 percent of economists.

Employment of women and minorities in higher education has grown slowly over the 1970's, and women's progress up the academic ladder still lags far behind that of comparable men. Women continue to be disproportionately over-represented among non-faculty researchers in higher education, while men are over-represented in the position of tenured professor. In 1983, women were 19 percent of faculty in universities and 37 percent of faculty in public two-year colleges. Only 51 percent of women faculty in all higher education institutions had tenure in 1983, compared to 70 percent of men. Women's proportion among scientists and engineers at academic institutions has increased slowly. Between 1974 and 1983, women moved from 3.4 to 17.6 percent of mathematicians; from 9.8 to 13 percent of chemists; from 19.7 to 24.8 percent of biologists; and from 21.3 to 26.5 percent of psychologists employed at academic institutions. More than half of college teachers in English, foreign languages, health specialties and home economics are women, but they are less than 5 percent of the total in engineering and physics.

These statistics and more are available in the new 288-page fifth edition of *Professional Women and Minorities*, which provides a comprehensive statistical picture of yesterday's, today's and tomorrow's professional workforce in the U.S. in the natural and social sciences, engineering, arts, humanities, education and all the professions. Data in all fields from more than 200 sources are detailed by sex or minority status, and the volume includes annotated recruitment resources, both for specialized fields and for general recruitment of professional women and minorities. A detailed bibliography and comprehensive cross-index of the 250 tables are also included. Both historical and current data on enrollments, degrees, and the general, academic and federal workforces are presented by field and subfield. *Professional Women and Minorities--A Manpower Data Resource Service*, Fifth Edition by Betty M. Vetter and Eleanor L. Babco is available for \$70.00 from the Scientific Manpower Commission, 1776 Mass. Ave., NW, Washington, DC 20036.

Women's Standard of Living Declining

Women's access to goods, services and leisure declined, relative to men, between 1959 and 1979, according to a new study by Stanford University economics professor Victor Fuchs. Changes in hourly earnings, hours of work and household structure are all contributing factors, he declares in "His and Hers: Gender Differences in Work and Income, 1959-1979."

"For the average (median) couple in 1979, the wife's hourly earnings were 62 percent of her husband's, down from 69 percent in 1959," Fuchs says. "This is not a result of entry into the labor force of wives with relatively less schooling."

Fuchs suggests that "in order for women to earn as much as men in competitive markets, they will probably have to behave like men with respect to subjects studied in school, choice of jobs, post-school investment, and commitment to career. This could result in extremely low fertility or in large numbers of children receiving inadequate care. A recent *Wall Street Journal* survey of women corporate executives ... reported that 52 percent were childless. Among those under age 40, almost two-thirds were childless.

Where women spent about three times as many hours per year in non-market work (which includes house and yard work, shopping and child care) as men in 1959, this ratio declined only slightly to 2.5 times as much by 1979. The average non-market hours worked by men fell from 616 to 611 per year for whites and from 446 to 439 for blacks. Copies of the study are published as Working Paper #1501 by the National Bureau of Economic Research, 1050 Mass. Ave., Cambridge, MA 02138.

Agreement Reached in Cornell University Case

A settlement was reached in September 1984 in the four-year-old suit brought by five faculty women against Cornell University for sex discrimination in tenure and compensation. Under the terms of the agreement, the university agreed to pay \$250,000 in full settlement of the charges brought by the women: \$100,000 for the five faculty women and 32 other women; \$25,000 for partial reimbursement of the plaintiff's litigation costs; and \$65,000 to the plaintiffs' attorneys. In addition, the university agrees to establish a fund of \$60,000 to be used within the next two years by women faculty for professional development. In the settlement, the plaintiffs agree not to pursue any further their claims of discrimination against the university. The lawsuit had included two parts: the compensation claims which were covered by the settlement, and the tenure claims which were not sustained by the courts.

The 37 women receiving settlement payments are current and former members of the Cornell faculty at ranks from lecturer to professor and include Blacks and other minorities. The suit was supported throughout by a group of women faculty, staff, alumnae, and others known as the "Friends of the Cornell Eleven." The support organization was co-chaired by Professor Emerita Alice H. Cook and Professor of History Mary Beth Norton. Commenting on the agreement, they noted that in the four years since the suit was filed, there has been some progress in the hiring and promotion of women in both faculty and administrative positions at Cornell.

Another outcome of the filing of the suit was the establishment in July 1981, by the American Association of University Women, Washington, DC of a Legal Advocacy Fund to provide "funding and a support system for women seeking judicial redress for sex discrimination." The AAUW Legal Advocacy Fund selected the Cornell Eleven as its first case. Subsequently, the Fund has supported academic women in suits against the entire State University System of Oregon, Temple University, Mohawk Valley Community College, and Fordham University.

"Market Forces" May Dictate Unequal Salaries for Faculty

A case involving two faculty members whose positions and responsibilities were essentially the same but who were paid different salaries has brought the concept of "market forces" into equal pay claims. The U.S. Court of Appeals for the First Circuit has ruled in *Winkes v. Brown University* that Brown did not violate the Equal Pay Act by paying a female professor more than a male professor in the same department. In order to keep the female professor on staff, the university matched a job offer she received from another school, thus raising her salary above that of a male counterpart in the department. The appellate court, reversing an earlier district court decision in favor of the male professor, found that the university had a legitimate reason other than sex for the pay differential.

Looking for an Association for Women in Science?

Over 65 groups concerned with women in science, engineering, math and medicine are described in a resource booklet published by the American Association for the

Advancement of Science (AAAS). Women's associations, committees and caucuses in anthropology, astronomy, biology, chemistry, computer sciences, earth sciences, economics, engineering, linguistics, math and statistics, medicine and health, physics, psychology, social sciences and several other fields are identified. The description of each group includes information on membership, publications, current activities and future plans. A free copy of "Associations and Committees Of or For Women in Science, Engineering, Mathematics and Medicine," compiled by Michelle Aldrich and Alicia Leach is available from the Office of Opportunities in Science, AAAS, 1776 Massachusetts Ave., NW, Washington, DC 20036.

OF POSSIBLE INTEREST

Books in Women's Studies. *Psychology of Women Quarterly*. Cambridge University Press. 32 East 57th St., New York, NY 10022.

Women's Studies. Columbia University Press, 136 South Broadway, Irvington NY 10533.

Several UN publications are available from Non-Governmental Liaison Service, DC2-1103, United Nations, New York, NY 10017. *Female Sexual Slavery and Economic Exploitation: Making Local and Global Connections* is a collection of articles and speeches describing and discussing the issues and problems of sexual and economic exploitation of women, with particular emphasis on the Third World. \$4.00(US). \$5.00(Cdn).

DEADLINES: Nov. 24 for Jan.-Feb., Jan. 24 for Mar.-Apr., Mar. 24 for May-June

AD DEADLINES: Dec. 5 for Jan.-Feb., Feb. 5 for Mar.-Apr., Apr. 5 for May-June

ADDRESSES: Send all Newsletter material except ads to Anne Leggett, Dept. of Math. Sci., Loyola University, 6525 N. Sheridan Rd., Chicago, IL 60626.

Send everything else, including ads, to AWM, Box 178, Wellesley College, Wellesley, MA 02181.

BALLOT FOR AWM ELECTION

President-elect:
(vote for one)

- Rhonda Hughes
- _____

Members-at-Large:
(vote for three)

- Lisa Goldberg
- Rebecca Herb
- Tilla Klotz Milnor
- _____
- _____
- _____

Ballot due by December 1, 1985. Send to: AWM, Box 178, Wellesley College, Wellesley, MA 02181.

LATE BREAKING NEWS

The 1985-86 edition of the Speakers' Bureau brochure has just been published. Speakers and Coordinators are being sent copies. Other AWM members may obtain them by writing to the AWM Office. An update on the Bureau will appear in the next issue of the Newsletter.

JOB ADS

Institutional members of AWM receive two free ads per year. All other ads are \$10 apiece and must be prepaid. The vacancies listed below appear in alphabetical order by state. All institutional members below are Affirmative Action/Equal Opportunity employers.

University of Alabama, Birmingham. Dept of Math, Birmingham, AL 35294. Tenure track position. Prefer candidates in fields of nonlinear analysis, mathematical physics, or dynamical systems. Applicant should be strong in research, a good teacher & able to interact with other researchers in Dept. Rank & salary open. Send C.V. & have 3 letters of reference sent to Roger T. Lewis at above address by 1/1/86.

University of Alabama, University. Dept of Math, University, AL 35486. (1) Five vacancies 8/16/86. Rank & salary depend on qualifications. Required: PhD & promise of excellence in teaching & research. Would like people who complement research interests of current faculty. At present we have active groups in algebra, analysis, applied math, differential equations & topology. Will consider applications for tenure as well as visiting positions. At least 3 letters of recommendation addressing teaching & research should be sent to Dept. Send curriculum vitae & reprints/preprints to James Wang, Chmn., Math Search Committee, Box 1416, University, AL 35486. (2) New position in applied math. Salary up to \$35,000 & rank dependent on qualifications. Prefer applicants in applied math with excellent records in teaching & research. Contact Alan Hopewasser, Chmn, Dept of Math, P O Box 1416, University, AL 35486.

Arizona State University. Dept of Math, Tempe, AZ. P. Leonard, Acting Chair. Asst professorship 1986-87 academic year in applied math. Possible additional positions. Minimum qualifications are PhD in math or stat & evidence of strong potential in math or stat. Some postdoctoral experience & record of publication are desirable. Send curriculum vitae & at least 3 letters of recommendation to Chair by 2/1/86.

University of Arizona. Dept of Math, Tucson, AZ 85721. Tenure track positions at all levels. Required: PhD, excellent research record or potential, strong commitment to teaching. Field is less important than ability, but should complement existing strengths in algebra, computational science, differential equations, dynamical systems, geometry, mathematical physics, nonlinear analysis, number theory, probability & statistics. Send application to Dept Head by 2/1/86.

San Diego State University. Math Science Dept., San Diego, CA 92182. Two tenurable positions, each open in math, math education & computer science. Rank open. PhD required by Sept, 1986. Required: strong research background & good teaching references. Duties: teaching undergraduates & graduates, curriculum development, directing master's research & conducting one's own research. Send vita & have 3 letters of recommendation sent to the appropriate one of Math, Math Education or Computer Science Search Committees, Math Sciences Dept. by 1/5/86.

University of California, Berkeley. Dept of Math, Berkeley, CA 94720. Marc A Rieffel, Vice Chair for Faculty Affairs. (1) Assoc or Full Professorship 7/1/86 (tenured) in areas of algebra, analysis, applied math, foundations, or geometry. Applicants should have demonstrated achievements in research & teaching. (2) Two Asst. Professorships (tenure track) in algebra, analysis, applied math, foundations or geometry & topology. Applicants should have demonstrated achievements in research & teaching. (3) Several temporary positions Fall, 1986 for new & recent PhD's of any age in algebra, analysis, applied math, foundations or geometry & topology. Term of appts range from 1 to 3 years. Applicants for NSF or other postdoctoral fellowships are encouraged to apply. Prefer mathematicians whose research interests are close to those of Dept members. By 1/15/86 send resume, reprints, preprints and/or dissertation abstract. Have 3 people send recommendations to Vice Chair for Faculty Affairs.

University of California, Davis. Dept of Mathematics, Davis, CA 95616. One or more tenure track positions effective 7/1/86. Broad background in one of the following areas: 1. Functional Analysis and Partial Differential Equations; 2. Dynamical Systems and the Geometric Theory of Differential Equations. Positions will be filled at Assistant Professor level and require Ph.D. in mathematics or closely related field and evidence of achievement or potential in research and teaching. By 1/13/86 send application, vita & names only of 3 referees to Chair, Search Committee, at above address.

University of California, Los Angeles. Dept of Mathematics, Los Angeles, CA 90024. Yiannis N, Moschovakis, Chair. (1) Three or four regular positions in pure mathematics. Preference will be given to candidates in number theory (including modular forms) and probability (including statistical mechanics). Other fields of particular interest include analysis, geometry/topology, differential equations, and algebra (especially representation theory). Very strong research & teaching background required. Positions initially budgeted at the Asst. Prof. level. Will consider sufficiently outstanding candidates at higher levels in other fields. Teaching load: Five quarter courses per year. (2) Three or four regular positions in applied and computational mathematics. Prefer candidates in numerical analysis, mathematical modeling, and scientific/engineering computing. Very strong research & teaching background required. Positions initially budgeted at Asst. prof. level. Sufficiently outstanding candidates at higher levels and/or in other fields will also be considered. Teaching load: Five quarter courses per year. (3) One or two positions in mathematical computer science. Preference will be given to candidates in analysis of algorithms, coding theory, computational complexity, and the theory of programming languages. Very strong research & teaching background required. Positions initially budgeted at the asst. prof. level. Sufficiently outstanding candidates at higher levels and/or in other fields will also be considered. Teaching load: Five quarter courses per year. (4) Temporary Positions. One or two E. R. Hedrick Asst. Professors. Applicants must show strong promise in research & must have received the Ph.D. during the past 3 or 4 years (but may be of any age): no restrictions as to field; anticipated salary \$34,000. Three year appt: research supplement of \$3,778 first summer. Teaching load: four quarter courses per year, which may include one advanced course in candidates' field. Deadline for applications is 1/1/86. Also a few adjunct asst professorships; two year appt; strong research & teaching background; no restriction as to field. Anticipated salary \$29,400 for academic year. Teaching load: five quarter courses per year. Also several positions for visitors & lecturers. For all positions apply to Chair, Attention: Faculty Search Committee.

University of California, Santa Barbara. Dept of Math, Santa Barbara, CA 93106. Prof. James Robertson, Chmn. Special visiting asst professorships for 86/87 academic year. Two year positions which involve research & 2-2-1 teaching load with salary of \$28,000. Required: PhD by 9/86, strong commitment to research & superior teaching ability. Anticipate a few senior level, one-year visiting positions. By 1/15/86 send vitae, publication lists & have 3 letters of recommendation sent to Chmn.

University of Colorado, Boulder. Dept of Mathematics, Box 426, Boulder, CO 80309. Asst Professorships available Fall, 1986. Also welcome strong applications for Assoc. Professorships. Prefer candidates whose research complements interests of current faculty. Salary range: \$24,000 to \$35,000. By 11/1/85 apply to New Appointments at above address.

Wesleyan University. Dept of Math. Middletown, CT 06457. (1) Tenure track asst. professorship in combinatorial or discrete math. Four-year contract beginning academic year 1986-87; six hour teaching weekly. Required: serious interest in teaching & on-going research program. Send vita & 3 letters of recommendation to Search Committee at above address by 1/31/86. (2) Dept of Comp Science. Positions at all levels in expanding comp. sci. program. Demonstrated research potential important; area of specialization open. Applicants should be able to teach at both graduate & undergraduate levels. PhD in comp sci or equivalent experience is expected. Send resume & 3 letters of reference to Alan Cobham, Prof. of Comp Sci. at above address by 2/15/86.

Emory University. Dept of Math & Comp Sci, Atlanta, GA 30322. Paul Waltman, Chmn. Three positions. (1) ordinary differential equations, preferably with interest in population biology or mathematical physics (2) nonlinear partial differential equations or differential geometry (3) Computer Science. Last position can also be filled by mathematician able to teach computer science but with research program in a different area. Rank for all positions open. Required: strong research record (or promise of such in case of new PhD) commitment to excellence in teaching, desire to help build strong graduate program. Send vita & names of 3 references by 2/1/86 to Chmn. Junior applicants should have their reference letters sent directly.

Florida International University. Dept of Math Sciences, Miami, FL 33199. Several tenure track asst professorships & one assoc. or full professorship 8/1986. Required: PhD in math, research potential, demonstrated teaching ability. Senior position requires demonstrated research record. Duties: 15 semester hours per academic year. Preferred specialties: harmonic analysis, several complex variables, mathematical logic, algebra, combinatorics. Send resume to Recruitment Committee at above address.

University of Florida. Dept of Math, Gainesville, FL 32611. Two tenure track positions. All areas of math considered. Candidates should have strong research potential, interest in teaching & at least 2 years of postdoctoral experience. Rank & salary commensurate with experience. Send resume, list of publications & have 3 letters of reference sent to Joseph Glover, Chair, Search & Screen Committee.

University of Illinois, Chicago. Dept of Math, Stat & Comp Sci, Box 4348, Chicago, IL 60680. Tenure track or tenured positions in pure math, applied math & numerical analysis, prob & stat, theoretical comp sci, & math educ. Outstanding research record required; junior candidates with postdoctoral experience preferred. Visiting positions of 1 or more quarters in connection with a planned 1986-87 emphasis year in combinatorics & complexity. Direct vita & 3 letters of reference to John Wood, Chmn, Search Committee (address above)

University of Illinois, Urbana--Champaign. Dept of Math, 273 Altgeld Hall, 1409 W.Green, Urbana, IL 61801--tel (217) 333-3352 . Heini Halberstam, Head. One or more faculty positions, visiting, tenure track or tenured at a junior level for academic year 1986-87. Salary commensurate with experience. Required: PhD & evidence of excellence in teaching & research. By 12/15/85 send application & credentials & have 3 letters of reference sent to Head.

Southern Illinois University, Carbondale. Dept of Math, Carbondale, IL 62901. Ronald Kirk, Chmn. (1) Numerical Analysis. Tenure track asst or assoc professorship 8/16/86. Required: PhD with strong background in numerical analysis & demonstrated evidence of excellence in research. Prefer teaching excellence. Rank & salary commensurate with qualifications. By 12/15/85 send application plus 3 letters of recommendation to Numerical Analysis Position, c/o Chmn. (2) Statistics. Tenure track asst professorship 8/15/86. Required: PhD with background in mathematical statistics & interests in applied statistics. Prefer teaching excellence. By 12/15/85 send application plus 3 letters of recommendation to Statistics Position c/o Chmn.

University of Iowa. Dept of Math, Iowa City, IA 52242. William A. Kirk, Chair. Tenure-track, tenured positions & visiting positions at all levels 1986-87 & 1987-88. Selections based on evidence of teaching ability & research achievements & potential; instructional needs of dept & potential for interaction with faculty at research level. Prefer candidates in partial differential equations, differential geometry & numerical analysis. Contact Chair.

University of Northern Iowa. Dept of Math & Comp Sci, Cedar Falls, IA 50614. Tenure track asst professorship. Salary & benefits competitive. Prefer specialty of algebra. Required: PhD, demonstrated teaching ability & research productivity/promise. By 2/20/86 contact Dr. David Duncan, Head, at address above.

Indiana University - Purdue University. Dept of Math Sciences, 1125 East 38th St., Box 647, Indianapolis, IN 46223. Prof. Neal Rothman, Chmn. Tenure track position 8/1986. Required: PhD & excellent research potential in area related to present interests of our faculty (Theoretical & Computational Fluid Dynamics, Hydrodynamic Stability, Combustion Tteory, Nonlinear Waves, Scientific Computation & Dynamical Systems). Teaching load 2 courses per semester. Excellent fringe benefits & competitive salary. Contact Chmn.

Purdue University. Dept of Math, West Lafayette, IN 47907. M. S. Baouendi, Head. (1) Several tenure track or research asst. professorships 8/1986. Required: exceptional research promise & excellence in teaching. (2) Possibly one position at assoc prof/prof level 8/1986. Required: excellent research credentials. For all positions send resume & 3 letters of recommendation to Head.

University of Kansas. Dept of Math, Lawrence, KS 66045-2142. C. J. Himmelberg, Chmn. (1) Tenure track & temporary positions at all levels, starting 8/16/86 or as negotiated. Prefer numerical analysts, but will consider candidates in other applied areas related to those represented in Dept. Require PhD or PhD dissertation accepted with only formalities to be completed. Send application, detailed resume with description of research & 3 recommendation letters to Chmn. Deadlines: 11/1/85 for first consideration, then monthly until 8/1/86. (2) Some instructorships Fall, 1986 (renewable for 2nd & 3rd years). Salary to be determined. Research interests should closely resemble those of current staff. PhD or dissertation accepted with only formalities to be completed. Send resume & dissertation abstract & have 3 letters of reference sent to Chmn. Deadline: 12/1/85, then monthly until 8/1/86.

Hood College. Dept of Math & Comp Sci, Frederick, MD 21701. Dr. E. Chang, Chair. Tenure track position. Rank & salary dependent on qualifications. Require terminal degree in computer science or mathematics or related field, substantial graduate study or professional experience in CS, & commitment to quality teaching. Teach undergraduate & graduate courses & provide curricular leadership for existing master's program. Academic computing facilities include VAX-11/780, PDP-11 microsystems, and numerous personal computers. Position may begin Jan. or Aug, 1986. Send resume & letter of application to Chair.

Towson State University. Dept of Math, Baltimore, MD 21204. Two tenure track asst professorships in mathematics available Fall 86, contingent on state funding. Teach 12 hrs/semester of undergraduate courses. Qualifications: PhD, commitment to teaching & research, 3 years teaching/research experience preferred. Area of specialization open. For one position preference will be given to applicants with specialization in discrete math or applied statistics. Salary to \$30,000. Send resume, 3 letters of recommendation and transcripts by 2/1/86 to Dr. Martha J Siegel, Chairperson, Search Committee at above address.

University of Maryland. Dept of Math, College Park, MD 20742. Prof. Nelson G. Markley, Chmn. Tenure or tenure track positions 8/1986. Rank & salary depend on qualifications. Joint appts with other units possible. Strong research program essential. By 2/1/86 send vita, description of research & have 3 letters of recommendation sent to Chmn.

Brandeis University. Dept of Math, Waltham, MA 02254. Several faculty openings in pure math both at visiting & asst professorship levels 9/1986. Teaching load six hrs per week. Required: demonstrating excellence in teaching & research. By 1/15/86 send vitae & letters of recommendation to Harold Levine, Chmn, Hiring Committee.

Clark University. Dept of Math/Comp Sci, Worcester, MA 01610. John F. Kennison, Chair. Tenure track asst or assoc professorship starting 9/1986 to play pivotal role in newly developed comp sci major & related programs. Prefer PhD in comp sci or equivalent of master's degree in comp sci with PhD in any field. Duties: teaching advanced undergraduate courses in comp sci & research activity in artificial intelligence, computer architecture, database systems, computer graphics, parallel processes or similar areas. Salary competitive depending on qualifications. We encourage women & members of minority groups to apply. By 12/1/85 send resume to Chair.

Michigan State University. College of Natural Science, East Lansing, MI 48824

Dean, College of Natural Science. College of Natural Science consists of 19 academic units and programs in the physical, biological & mathematical sciences. The College maintains programs of instruction, research & public service both on and off campus. The Dean of the College of Natural Science is the chief executive officer of the College and is responsible to the Provost and the President for the general administration of the College. Required: Ph.D. or its equivalent & evidence of strong accomplishment in scientific research and in administrative leadership. Candidates must meet standards for appointment at rank of professor (with tenure) in an academic department in the College. Position will start 7/1/86 or as soon as possible thereafter. By 11/1/85 send nominations and applications to:

Dr. James Bath
Chairperson, Search & Rating Committee
Dean of the College of Natural Science
c/o Office of the Provost
436 Administration Bldg.
Michigan State University
East Lansing, MI 48824

Michigan State University. Dept of Math, E. Lansing 48824-1027. Prof. Kyung Whan Kwun, Chmn. (1) Several tenure track asst & assoc professorships in numerical analysis & other fields. Prefer candidates with ability to contribute to our new computational mathematics program (e.g., expertise in applied logic, graph theory, other discrete mathematics). (2) One or two postdoctoral fellowships in math (2 yr appt). Duties: teach one course each term & devote remaining time to research. These fellowships are normally offered to persons (regardless of age) who have had a doctorate less than 2 years. Some instructorships available also. For all positions have resume & 3 letters of recommendation sent to Chmn by 1/17/86.

Michigan Technological University. Math Sciences Dept, Houghton, MI 49931. Position of Department Head. Required: established research record & special interest in applied math or statistics, with commitment to active research & teaching. Send resume & have 3 letters of recommendation sent to Headship Search Committee.

Western Michigan University. Dept of Math, Kalamazoo, MI 49008. Joseph Buckley, Chair. For Fall 1986 (1) Two asst or assoc professorships in Stat. Rank dependent on qualifications. (2) Tenure track asst professorship in math in field of graph theory/combinatorics. (3) tenure track asst professorship in math education. Required for all positions: PhD & strong commitment to teaching & research. Teach both graduate & undergraduate courses, do research & help with course/curriculum development. Competitive salary & fringe benefits. Contact Chair.

Macalester College. Dept of Math & Comp Sci, St Paul, MN 55105. John Schue, Chmn. Tenure track position Fall, 1986. Required: PhD in math or comp sci (or nearly so). Duties: help with development & teaching of upper level courses in comp sci. Applicants should be committed to excellence in undergraduate teaching & scholarship. Send application, resume & 3 references to Chmn. Applications will be accepted until position is filled.

University of MN, Duluth. Dept of Math Sciences, Duluth, MN 55812. Tenure track asst or assoc or tenured assoc. Start 9/1/86. Conduct research & teach 2 courses/quarter including stat, probability or operations research at undergraduate & proposed masters level. Desired experience: practical experience in applications of statistics, probability or operations research; large scale computing. Required: Asst prof - PhD in statistics, math or related field; probationary assoc - additionally, 5 years professional experience & professional distinction in research; tenured assoc - additionally, demonstrated effectiveness in teaching & advising. Send resume, transcripts & 3 letters of recommendation by 1/18/86 to R. Regal. THE UNIVERSITY OF MINNESOTA IS AN EQUAL OPPORTUNITY EDUCATOR & EMPLOYER AND SPECIFICALLY INVITES & ENCOURAGES APPLICATIONS FROM WOMEN AND MINORITIES.

University of Minnesota, Duluth. Dept of Computer Science. Asst or tenured assoc professorship for Fall, 1986. Teach 6-8 hrs per quarter, assist in development of new master's & ongoing undergraduate programs, & conduct research. For further information on job description & qualifications contact Keith R. Pierce, Dept of Math Science, Univ of Minnesota, Duluth, MN 55812. Applications due 1/31/86.

University of Minnesota, Duluth, Duluth, MN 55812.

Director of Computing Services. The Director will provide leadership to staff of 14 FTE in meeting instructional & research computing needs of nearly 8000 students and over 500 faculty. UMD Computing Services functions in a Cyber/multiple VAS environment with over 100 time-sharing terminals and a variety of microcomputers. The Director will manage these on-campus computing facilities and assist Duluth users of other University computing facilities. It is intended that the Computing Services Director will work with other Directors in developing, implementing, and

Univ of MN, Duluth, (contd)

operating an intracampus telecommunications network and monitoring/expanding the existing intercampus network. This is a five-year, renewable administrative appt. Faculty appt is possible; rank & status (non-regular/regular) dependent upon credentials & review by disciplinary department & administration. Minimum qualifications include a PhD & 3 years administrative experience within computing services. Preference will be given to those with: experience in telecommunications; a PhD in mathematics or computer science. Salary is negotiable & commensurate with qualifications & experience. Send application, resume & list of 3 references by 11/30/85 to Patricia A Merrier. Univ of MN, Duluth, 421 Darland Adminis. Bldg., Duluth, MN 55812.

University of Minnesota, Minneapolis. School of Math, Minneapolis, MN 55455.

Willard Miller, Jr., Head. (1) Several visiting positions from lecturer to full professor available for periods of one quarter to 2 years. Required: strong research & teaching abilities. Prefer applicants whose research interests are compatible with those of School. Salary competitive. Will consider applications by 12/1/85. (2) Fall 1986. At least one tenure track or senior position expected. Required: outstanding research & teaching abilities. Special interest in scientific computation, analysis & combinatorics. Salary competitive. Current teaching load five 1/4 courses per academic year. Applications due 1/13/86.

University of Missouri, Columbia. Dept of Math, Columbia, MO 65211. Keith Schrader, Chair. One or more tenure track asst or assoc professorships 1986-87 academic year. Prefer PhD holders with strong interest in research & who can teach effectively at both graduate & undergraduate levels. Prefer candidates in harmonic & probabilistic analysis, algebraic geometry, differential equations, and computational mathematics. By 2/1/86 send application, vita, publication list & 3 letters of recommendation to Chair.

Washington University, St. Louis. Dept of Math, Box 1146, St. Louis, MO 63230.

R. H. McDowell, Chmn. One or more positions Fall, 1986. Rank & salary dependent on qualifications. Required: outstanding research ability in field represented in Dept & evidence of excellence in teaching. Send application, vita & have 3 letters of reference sent to Chmn by 1/15/86.

Dartmouth College. Dept of Math & Comp Sci, Bradley Hall, Hanover, NH 03755.

John Wesley Young Instructorship in a 2 year postdoctoral appt for new or recent PhDs whose research area overlaps with that of some Dept member. Teach less than 6 hrs per week. Nine month salary of \$21,500 is supplemented by a \$3000 stipend for Instructors in residence 2 more months. Send application, resume, graduate transcript, thesis abstract & 3 letters of recommendation to Recruiting Secretary at above address.

Rutgers University, Newark. Dept of Math & Computer Science, Smith Hall, Newark, NJ 17102. Jane Gilman, Chair. Full professorship 7/1986. Candidates should exhibit strong research accomplishments. Teaching load & salary negotiable. Send curriculum vitae & names of 3 references to Chair.

Cornell University. Dept of Math, Ithaca, NY 14853-7901. Prof Anil Nerode, Chmn.

(1) Tenure full professorship in nonlinear partial differential or integral equations 7/1/86. Salary negotiable. Send curriculum vitae & list of publications to Chmn by 3/1/86. (2) Six visiting teaching appts for math professors on sabbatical from private liberal arts colleges in East for academic year 1986-87. Salary: Up to \$15,000 plus fringes. Duties: teach 2 freshman calculus courses. Time to attend courses & seminars for credit without cost. For preceding summer, the program will provide a living allowance & tuition in addition to salary mentioned above. By 2/1/86 send 2 teaching references, curriculum vitae & letters from Deans or Chairs showing how such a visit would benefit your home institution.

Rensselaer Polytechnic Inst. Dept of Math Sciences, Troy, NY 12180. J. G. Ecker, Chmn. Several tenure track openings at all levels in areas of applied math starting 9/1986, or earlier. Required: PhD & strong research potential for junior level appts & demonstrated outstanding record for senior level appts. Teach 6 to 7 hours/week per semester. Also anticipate 2 or 3 visiting & post-doctoral appts at all levels.

State University College, Plattsburgh. Math Dept, Plattsburgh, NY 12901. Two tenure track positions in math 9/1986. Appts at all levels. Primary duty: undergraduate teaching. Required: PhD in math or stat. Send cover letter, curriculum vitae & 3 letters of recommendation to Dr. Robert Hofer, c/o Ms. Mayerlyn Miller, Director of Personnel/Affirmative Action, Box 181, at above address.

SUNY- Buffalo. Dept of Math, 106 Diefendorf Hall, Buffalo, NY 14214. Dr. Jonathan Bell, Search Committee Chmn. At least one asst professorship 9/1/86. Salary competitive. Will consider applicants in all fields of math, but prefer those in algebraic/geometric topology, numerical analysis/applied math, differential geometry/Lie Groups/harmonic analysis, and ring/module theory. We seek applicants with high research potential & strong commitment to teaching. By 12/1/85 send credentials & 4 letters of recommendation to Dr. Jonathan Bell, Search Committee Chmn.

University of North Carolina, Chapel Hill. Dept of Math, Chapel Hill, NC 27514. Tenure track asst or assoc professorship, Fall 198y. Rank & salary dependent on qualifications & budget. Required: PhD, strong research program & commitment to excellent teaching. Prefer candidates in computational & applied math. Send 4 letters of recommendation, vitae & abstract of current research to Chmn, Math Dept. by 1/15/86.

Miami University. Math & Stat Dept., Oxford, OH 45056. David J Lutzer, Chair. Tenure track asst professorship 8/1986. Duties: teaching 8-9 hours per semester, continuing scholarship & committee service. Required: PhD in pure or applied math by 8/1986. By 2/1/86 send vita, transcripts & 3 letters of reference to Chair.

Miami University. Middletown, OH (2 year regional campus of Miami Univ, Oxford) Tenure track asst professorship 8/1986. Duties: teaching 12 hrs per semester, univ & community professional service and scholarship. Required: PhD in math, stat or math education by 8/1986 & strong interest in teaching. By 2/1/86 send vita, transcripts & 3 reference letters to Chair at Oxford address.

Oberlin College. Dept of Math, Oberlin, OH 44074. George Andrews, Chmn. (1) Two tenure track positions with initial 4 year appts 7/1/86. Prefer candidates in comp sci & statistics. (2) Two other possible non-continuing positions, one for 2 years in math, the other for one year in comp sci. Required for all positions: PhD completed or expected by 9/86, strong interest in undergraduate teaching & active research interests. Rank & salary commensurate with qualifications & experience. By 2/17/86 send resume, transcripts & 3 letters of reference to Chmn. Late applications considered until position is filled.

University of Cincinnati. Dept of Math Sciences, ML #25, Cincinnati, OH 45221. C. W. Groetsch, Head. Several asst professorships. Prefer candidates who can strengthen existing research areas in Dept. Required: outstanding potential for research, scholarship & teaching. Send vita & 3 letters of reference to Head.

University of Pennsylvania. Dept of Math (E1), Philadelphia, PA 19104.

One or more tenure positions available, commencing 7/1/86 to candidates with significant recognized research achievements who are successful teachers of undergraduate and graduate students. Prefer candidates in algebra. Rank & salary depend upon experience. Write to Prof. Herman R. Gluck, Chmn, Personnel Comm.

Several faculty positions available 7/1/86. Candidates should have strong research credentials & be recognized as potentially successful teachers of undergraduate and graduate students. By 1/1/86 send applications & supporting information & 3 letters of reference describing both research & teaching ability to Prof. Herman R. Gluck, Chmn, Personnel Comm.

University of Tennessee. Dept of Math, Knoxville, TN 37996-1300. John S. Bradley, Head. (1) Tenure track--seek candidates with outstanding research potential in or related to any of following specialties: algebra, analysis, integral equations, mathematical ecology, enumerative analysis, ordinary & partial differential equations, probability, topology, statistics. (2) Visitors--all levels, one or more quarters in areas related to current program. Contact Head.

Rice University. Math Dept., Box 1892, Houston, TX 77251. (1) One asst, assoc or full professorship. Applicants with outstanding research accomplishments in one or more of the areas of analysis, geometry, mathematical physics or topology please write for application forms to Senior Appts Committee at above address. (2) At least one Griffith C Evans instructorship 7/1/86. Applicants with strong research credentials in one or more of the areas of analysis, geometry, mathematical physics or topology please write for application forms to Junior Appts Committee at above address.

University of Texas, Arlington. Dept of Math, Box 19408, Arlington, TX 76019. Prof Pai Han, Chmn, Search Committee. Several tenure track asst professorships. Will consider exceptional candidates for higher rank. Required: excellent research & teaching credentials. Desired areas of expertise are operational research, numerical & computational math & applied math. Send resume with 3 letters of recommendation to Chmn, Search Committee, by 12/15/85.

University of Texas, San Antonio. College of Sciences & Engineering, San Antonio, TX 78285-0661. Tenure track positions in comp sci, systems design, applied and/or engineering mathematics & math education. Seeking candidates who can interact with local research laboratories, biomedical centers, & industry. PhD required. Will consider candidates currently completing PhD for appt at rank of instructor with subsequent consideration for promotion to asst prof upon completion of degree. Send application to Dr. David Eberly, Chair, Search Committee, Office the Dean, at above address.

University of Utah. Dept of Math, Salt Lake City, UT 84112. (1) Three or four non-renewable 3-year instructorships. Persons of any age receiving PhD in 1985 or 1986 are eligible. Selection based on ability & potential in teaching & research. Starting salary \$24,000. Duties - teach 2 courses through academic year. (2) One visiting position of one year or less. Selection based on teaching ability & potential contribution to our research environment. Send application, curriculum vitae, bibliography & 3 references to Committee on Staffing at above address. (Instructorship applications must include abstract of thesis, a list of graduate courses completed or transcripts.) Applications accepted until all positions are filled.

University of Vermont. Dept of Math & Stat, 16 Colchester Ave., Burlington, VT 05405. James C. Becker, Chmn. One tenure track asst/assoc professorship & one asst professorship. Required: excellence in research & teaching. All math research areas will be considered, but preference will be given to areas compatible with those of Dept. By 1/20/86 send resume & have 3 letters of recommendation sent to Chmn.

Beloit College. Dept of Math & Comp Sci., Beloit, WI 53511. Philip Straffin, Chair. (1) Tenure track asst or assoc professorship. Required: PhD in a math science, interest in liberal arts education, dedication to teaching & to professional growth. Must be able to teach upper division comp sci courses & have comp sci as one area of professional interest. Deadline is 2/1/86 for assured consideration. (2) Visiting instructor or asst or assoc professorship could be for 3 semesters starting 1/86 or for 2 semesters starting 8/86. Deadline 12/7/85 for January; Feb 1, 1986 for August. Applicants for both positions should send letter & vita & arrange for transcripts & 3 letters of reference to be sent.

University of Wisconsin, Madison. Dept of Math, 480 Lincoln Dr, Madison, WI 53706. Thomas G. Kurtz, Chmn. (1) One or more Van Vleck asst professorships 8/1986. Two or three year appts at salary of at least \$25,000. Required: PhD by 9/1986. Desirable: strong commitment to good teaching & outstanding potential for math research. Prefer candidates who are likely to interact well with members in Dept. Teaching load: 2 courses per semester. High probability of additional income through research or teaching during summers. Application forms available from Chmn. By 12/31/85 send vita, one to three page abstract of dissertation & 3 or 4 letters of recommendation, one of which discusses candidate's ability as a teacher. (2) Tenure track or possible tenure appts Fall, 1986. Asst professor level unless qualifications & experience warrant higher rank. Consideration will begin 11/25/85 & continue until positions are filled. Application forms available from Chmn.

York University. Dept of Math, 4700 Keele St, North York, Ontario, M3J 1P3 Canada. J. Wick Pelletier, Chair. Tenure track position in Stat; rank open; one or more tenure track or limited-term positions, areas unspecified, to begin 7/1/86. Desirable: proven ability or demonstrated potential for research & teaching. By 2/1/86 send resumes & 3 letters of recommendation to Chair. In accordance with Canadian Immigration requirements this advertisement is directed to Canadian citizens & permanent residents of Canada.

Late Arrival

California State University, LA. Dept of Math and Comp Sci, Los Angeles, CA 90032. Tenure track positions, any rank. PhD in math or comp sci with background in math required. Strong computer science background desirable and ABD toward PhD in CS will be considered. One year temporary positions also available. Starting date: 9/1986. Salary: \$26,500-\$47,500 with additional summer employment possibilities. By 2/1/86 send inquiries to Wayne Bishop, Chair, at above address.

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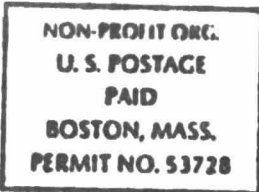
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Association for Women in Mathematics
Box 178, Wellesley College
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November - December, 1985



Marie A. Vitulli
Univ of Oregon
Dept of Math
Eugene, OR 97403