



November 1998

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FOCUS

THE NEWSLETTER OF THE MATHEMATICAL ASSOCIATION OF AMERICA

Nominations Sought for MAA National Offices

Nominations for the next president and the two vice-presidential offices of the MAA are being sought by the MAA's Nominating Committee. In addition to the name of the individual and the office for which that person is suggested, the Committee asks MAA members to include more detailed information which will help the Committee to design a slate of nominees for each of the three positions.

This information should include current position, MAA activities at the section and national levels, and current activities in the professional mathematics community. To facilitate the work of the Committee members, include the ad-

dress or other contact information for the person you suggest. Since the Committee must complete its work before the January 1999 meeting, send suggestions as soon as possible.

Members of the Nominating Committee are:

- Barbara Faires, chair
(fares@westminster.edu)
- Sylvia Bozeman
(sbozeman@spelman.edu)
- Don Kreider
(don.kreider@dartmouth.edu)
- Ken Ross (ross@math.uoregon.edu)
- Paul Zorn (zorn@stolaf.edu) ■

MAA Undertakes Grass Roots Effort to Increase Membership

This academic year the MAA is undertaking a grass roots effort to increase membership in the Association. The effort is being spearheaded by the MAA/Department Liaisons. The drive is intended to attract undergraduate and graduate students, mathematics faculty at colleges and universities, and institutions.

A major theme of the membership drive concerns the professional service aspect of the MAA. Liaisons have been

asked to highlight the contributions that the MAA makes to the profession, and to present the case that these efforts deserve the support of all mathematics faculty—aside from the direct personal benefits that membership in the MAA confers.

Another component of the drive is a new MAA poster promoting membership, especially for students. The poster has been sent to all Liaisons, and should already be posted in college and university mathematics departments. MAA members are encouraged to participate in the membership drive by assisting their Liaisons in informing nonmembers on the faculty—as well as students—of the benefits of membership, both for individuals and for their institutions.

The Liaisons Program, which was launched in 1995, is the successor to

continued on page 6

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Institute in the History of Mathematics Completes Fourth Year

This past July, 48 college faculty members and 18 high school teachers met at Catholic University of America (Washington, D. C.) as part of the fourth summer session of the Institute in the History of Mathematics and Its Use in Teaching (IHMT). Their presence was supported by two grants to the MAA by the National Science Foundation.

Led by Fred Rickey, Karen Dee Michalowicz, and Victor Katz, the college faculty members studied the history of algebra, geometry, and calculus, participated in seminars in using history in the teaching of mathematics, and discussed teaching courses in the history of mathematics. They participated in a discussion on Historiography (led by Ron Callinger) and attended lectures on Ethnomathematics (Marcia Ascher), Maclaurin and the Molasses Barrels (Judith Grabiner), the Geometrical Meaning of the Third Derivative (Steven Schot), Indian Mathematics and Astronomy (Kim Plofker), and the History of Art and the History of Mathematics (Florence Fasanelli).

Ten of the college faculty members were in advanced seminars led by Ascher, Grabiner, Schot, and Plofker and took part in preparing historical

modules for use in high school and college mathematics teaching. Modules are self-contained packages of material—usually 40 pages long—designed to enable high school teachers to teach a particular topic in the curriculum by the use of the history of mathematics.

Faculty members worked with high school teachers to develop modules in trigonometry, exponentials and logarithms, proof in geometry, linear equations, negative numbers, and combinatorics. The teachers will work on these modules in the coming year and will test pilot them by the spring. Since there is a need for close to 100 field test teachers for these historical modules, high school teachers are being sought to participate in the field tests. Some of the testers will come to Washington next summer for intensive professional sessions on the development and use of the modules. Others will be able to obtain written materials on their preparation and use. Anyone interested in taking part in field testing can contact Victor Katz (vkatz@maa.org) or Karen Michalowicz (Karen DM@aol.com) by e-mail or by writing to them at the MAA, 1529 18th St., N.W., Washington, D. C. 20036. The deadline is February 1. ■

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 1. Complete and file a copy of this form with your principal business office on or before October 1. Keep a copy of the completed form for your records.
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 3. If the publication is published by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner.
 4. If the publication has second class distribution as a classified or request publication, the Statement of Ownership, Management, and Circulation must be published. It must be printed in any issue in October or in the publication's first issue published after October 1.
 5. In item 14 indicate the date of the issue in which this Statement of Ownership will be published.
 6. Item 17 must be signed.
 Failure to file or publish a statement of ownership may lead to suspension of second class authorization.

Teams From Duke and Eastern Oregon Capture Top Prizes in Math Modeling Contest

Last February, nearly 500 undergraduate teams from across the country spent a long weekend wrestling with a challenge offered by the Mathematical Contest in Modeling (MCM). Each team of three undergraduates chose between an MRI Scanner (or continuous) problem and a Grade Inflation (or discrete) problem. Seven papers (four MRI and three Inflation) were judged

to be of sufficient merit to warrant publication in the Fall issue of the UMAP Journal. Two of the seven, Duke and Eastern Oregon, were designated MAA winners and presented their papers at a special MCM session at the MAA meeting in Toronto in July.

Eastern Oregon team members Timothy O'Connor and Kacee Giger (Kelly Cline did not attend) presented their solution to the MRI Scanner problem. Duke University's team members Jeffrey Mermin, Garrett Mitchener, and John



MAA President-elect Thomas Banchoff with MCM winners (left to right) Kacee Giger, Timothy O'Connor, Jeff Mermin, John Thacker, and Garrett Mitchener.

Thacker offered their solution to the Grade Inflation problem. MAA President-elect Thomas Banchoff presented MAA certificates to the winning teams.

Next March, there will be another challenging weekend for the Mathematical Contest in Modeling. The MAA is seeking judges for this intense effort. The commitment is for two years, extendable to a third. If interested, contact Ben Fusaro, the creator and founding director of the MCM, at: fusaro@math.fsu.edu. ■

Two Asian Conferences on Mathematics Deemed a Success

Despite economic turmoil in Asia, the first East Asia Regional Conference on Mathematics Education (or EARCOME1), held at the Korea National University of Education in Chungbuk last August 17 to August 21, was reported to have been an international success, with more than 600 attendees from around the world. Eleven plenary lectures ranged from problems on university entrance examinations in Japan to mathematics education in Singapore. They included:

- Mathematics for Teachers of Mathematics: Various Solutions (Han Shick Park, Korea National University of Education, Korea)
- Culture, Values, and Assessment in Mathematics (Alan Bishop, Monash University, Australia)
- Some Characteristics of Mathematics education in East Asia - An overview from China (Dianzhou Zhang, East China Normal University, China; Frederick K. S. Lueng, University of Hong Kong, China; Ngai Ying Wong, Chinese University of Hong Kong, China)
- International Benchmarking as Way to Improve School Mathematics Achievement in the Era of Globalization (Bienvenido F. Nebres, S.J., Ateneo de Manila University, Philippines)
- Mathematics Problems in University Entrance Examination in Japan (Shigeru Iitaka, Gakushuin University, Japan)
- Mixing New Technologies, New Curricula and New Pedagogies to Obtain Extraordinary Performance from Ordinary People in the Next Cen-

see *Conferences* on page 6

Another 1998 MAA Teaching Award Winner

The 1998 Metro NY Teaching Award Winner was Jack Winn, SUNY Farmingdale.

NCTM Seeks Articles for Its 2001 Yearbook

The NCTM's Educational Materials Committee is now inviting manuscripts for its *2001 Yearbook: The Roles of Representation in School Mathematics*, which will be edited by Al Cuoco of the Education Development Center, Newton, Mass.

Share your research, thoughts, and anecdotes about how students express mathematical concepts and how their expressions affect their understanding of mathematics.

The goal of this yearbook is to create a forum for current thinking and practices related to representations of graphs, tables, diagrams, manipulatives, and equations used to record and communicate mathematical ideas, and for developing mathematical thinking.

In particular, the editorial panel is interested in papers addressing instructional implications for using various

representations of mathematical ideas and contexts, the use and construction of symbol systems in school mathematics, and the tools students use for thinking mathematically.

The panel also welcomes brief articles on classroom experiences with representations that reflect cultural, affective, and linguistic influences.

Author guidelines are available, including a description of topics to be addressed, from Frances R. Curcio, Department of Teaching and Learning, School of Education, New York University, New York, NY 10003; e-mail frcl1@is2.nyu.edu.

The guidelines may also be obtained from the NCTM's fax on demand service: (800) 220-8483, document #852; or from the NCTM's Web site: www.nctm.org. ■



Secretary's Report: Board Votes for Mathfest 2000 and Bylaws Changes

Martha J. Siegel

The 1998 Toronto Mathfest is now history, but it was terrific. Congratulations are in order for our past-Associate Secretary Donovan Van Osdol, the Program Committee headed by J. Kevin Colligan, and the Local Arrangements Committee, chaired by Ed Barbeau. The program was excellent and provided wonderful opportunities for learning mathematics and for meeting colleagues. Plan now to join us at the 1999 Mathfest, July 31-August 2, in Providence, RI.

I shall report on the Board of Governors meeting and on the business transacted in Toronto. The Board spent quite a bit of time discussing the status of Mathfest 2000. The American Mathematical Society is planning a meeting of its own in the summer of 2000 at the University of California, Los Angeles, August 7-12, with a format of several days of plenary talks. The question before the Governors was whether the MAA should have a Mathfest in 2000, and if so, when and where. An additional complication is the fact that the International Congress on Mathematics Education (ICME) is scheduled for July, 2000 in Japan. After much discussion, the plan to have a Mathfest was reaffirmed by the Board, even though there will be some overlap with ICME. Associate Secretary James Tattersall will be looking for a site that is fairly close to UCLA, for dates immediately preceding the AMS meeting. We will keep you all informed about the plans.

One of the most significant issues before the Board was a Bylaws change. The details of the Bylaws changes, which were approved at the Board meeting, are completely explained elsewhere in FOCUS. The membership will be asked to vote on it at the San Antonio Business Meeting. Please be sure you take a moment to read the proposal. It will be available on *MAA Online* until the end of the January meetings.

The Governors elected a Nominating Committee for the election of national officers in 1999 (Sylvia Bozeman, Barbara Faires (chair), Donald Kreider, Kenneth Ross, and Paul Zorn). The membership will be electing a President-Elect, and First and Second Vice-Presidents in the spring. Barbara Faires can be reached at fares@westminster.edu, for further information.

In business conducted by mail, Deanna Haunsperger and Steve Kennedy were elected Editors-Elect of *Math Horizons* until December 1998 and then Editors from January 1, 1999 to December 31, 2003. In addition, the Board elected Mary K. Heid of the Pennsylvania State University to fill the unexpired term of James R. C. Leitzel as Governor-at-Large Representing Teacher Education.

Financial Outlook

Our financial picture seems to be improving. We welcomed Neil Beskin as Finance Director this winter, and he and the Finance Committee have been working diligently to understand where we can control expenses and increase revenues while continuing to provide the kind of services to the membership that we believe make the MAA attractive.

The Board approved committee recommendations for winners of the following awards: Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics; Certificates of Meritorious Service for the Indiana, Louisiana-Mississippi, Nebraska-Southeastern South Dakota, Ohio, and Southeastern Sections; the Chauvenet Prize; and the Yeuh-Gin Gung and Dr. Charles Y. Hu Award for Distinguished Service to Mathematics. These awards will be presented at the January meetings in San Antonio. Winners of the Distinguished Teaching Awards will be delivering talks at the San Antonio meetings.

I am pleased to announce that the Board enthusiastically approved the recommendation that Dr. Carl

Pomerance of the University of Georgia be named the 1999 Hedrick Lecturer. Dr. Pomerance will deliver three talks at the Providence Mathfest. The Hedrick Lectures are highlights of Mathfests. This year's Hedrick Lecturer, Dr. Jean Taylor of Rutgers University, spoke on Geometric Variational Problems discussing soap films, crystals, and ice cubes versus snowflakes - all with visual aids! Again, the Lectures are always special mathematical treats.

Executive Director Marcia Sward announced the appointment of Titu Andreescu as Director-Elect of the American Mathematics Competitions to succeed Walter Mientka, who has accepted the position of IMO 2001 Executive Director as of April 1, 1998. Walter will continue as AMC Director on a 50% basis until the end of 1998, reduce his time to 25% in 1999, and then devote full time to IMO 2001. Starting January 1, 1999, Titu will assume the position of Director of the AMC. As coach of the USAMO team, Titu is well known to many MAA members. The team was in Taiwan at the time of the Mathfest, but we are happy to report that the USA team tied for third place and each team member won either a gold or silver medal.

Project Next

I am pleased to announce that Aparna W. Higgins and Joseph A. Gallian will be joining the staff of NEXT as co-directors. Chris Stevens has been shouldering a heavy load since the death of director Jim Leitzel. NEXT fellows and friends of Jim Leitzel have been discussing ways to honor his memory and I am pleased to tell you that the Board of Governors approved the James R. C. Leitzel Lecture to be given once a year (usually at Mathfest) in Jim's honor. Endowment funds must be raised to offset expenses, and donations will be cheerfully accepted at MAA Headquarters. When sending in checks, please note on the check "James R. C. Leitzel Lecture Fund." The first of these lectures will take place at the Providence Mathfest.

In routine business, the Board approved two new members of the *College Mathematics Journal* Editorial Board and reviewed reports from the Task Force on Graduate Students (Thomas Rishel, chair) and the President's Task Force on the NCTM Standards (Kenneth Ross, chair). You may check *MAA Online* for the Task Force's responses to the NCTM questions. The Board also approved a motion regarding the Association for Research in Undergraduate Mathematics Education (ARUME), setting up a structure for a trial period of five years. At every national meeting of the MAA there will be a short business meeting of ARUME, a short expository talk, a contributed paper session devoted to ARUME, and opportunity for informal discussion at a reception. Membership in ARUME will be open to all MAA members and its newsletter will be hosted on the MAA website and linked to *MAA Online*.

Members are urged to read the Bylaws change and come to the Business Meeting in San Antonio! Be informed and vote!

Bylaws Changes of the MAA

On July 15, 1998, the Board of Governors of the Mathematical Association of America voted approval of the following changes in the Bylaws of the Association. The gist of the change is that whereas the Bylaws now require that an editor of one of the three journals of the Association be elected by the Board of Governors to a seat on the Executive Committee for a term of two years, the change would allow the Board to elect either one of the editors or the chairperson of the Committee on Publications for a term of two years.

To accomplish this, the boldface terms have been added and the italics terms deleted.

Article III.2. There shall be a Board of Governors (herein called "the Board") to consist of the officers, the ex-presidents for terms of six years after the expiration of their respective presidential terms, the Associate Secretary, the Editor of each of its three publications entitled *The American Mathematical Monthly*, *The College Mathematics Journal*, and *Mathematics Magazine*, the members of the **Executive and Fi-**

nance Committees, *the chair of the Committee on Sections*, and additional elected members (herein called "Governors"). It shall be the function of the Board to supervise all scholarly and scientific activities of the Association, to administer and control these activities, and to authorize expenditures of funds of the Association.

Article III. 3. There shall be an Executive Committee of the Board consisting of the Officers of the Association, the chair of the Committee on Sections, and a current journal **editor or the chair of the Committee on Publications**. It shall be the function of this Committee to review continually the policies and activities of the Association, to plan and organize new activities, to formulate in broad outline the programs of meetings and of publications, and in general to consider all matters of importance or interest to the Association. This Committee shall prepare the agenda for meetings of the Board and shall analyze the implications and aspects of all matters which are to come before the Board for decision. It shall present to the Board the viewpoints suggested by such analyses, as well as such facts as may seem pertinent or as may in any way facilitate the Board's work.

Article IV.1.c. The Board shall elect annually two Governors for terms of three years and at appropriate times by ballot and for terms stated: an Editor of the *American Mathematical Monthly*, Editor of the *College Mathematics Magazine*, a Secretary, an Associate Secretary, and a Treasurer each for five years, and two members-at-large of the Finance Committee for four years. In even-numbered years the Board shall elect one of the current **editors or the chair of the Committee on Publications** to be a member of the Executive Committee for a two-year term beginning on January 1 of the next year.

Article VII.5. There shall be a standing Committee on Publications.

Article VII.6 The board shall fix the price of each journal. The prices for other publications of the Association shall be determined by the Finance Committee. [renumbered - old VII.5]

Be advised that Article XI states the way in which changes can be made to the

Bylaws. By publication in FOCUS, the Secretary provides notice of the changes. This notice may be found on MAA Online, as well. A vote will be taken at the next annual business meeting of the Association, on January 15, 1999 in San Antonio, TX.

Article XI.1. Changes in the Articles of Association or amendments to the Bylaws may be made at any annual business meeting of the Association, or at any adjourned session thereof, or at any special meeting of the Association called for such purpose, by a two-third (2/3) vote of those present and entitled to vote, provided that due notice concerning such amendment shall have been mailed to each member at least one (1) month before the date of such meeting. The Secretary shall give such due notice when so instructed by a vote of the Board of Governors or when so petitioned by at least one hundred members of the Association.

2. No changes in the Articles of the Association or amendments to these Bylaws shall have a legal effect until a certificate thereof, verified by oath of the President and under the Seal of the Association, attested by the Secretary, shall be recorded in the office of the Recorder of Deeds for Cook County, Illinois. ■

Tensor Foundation Offers Grants for Women and Girls in Mathematics

The Tensor Foundation will continue the program, which was started in 1995, to make funds available for programs that encourage women and girls in mathematics. Ten grants of up to \$5,000 each will be awarded in April 1999 for student-centered projects conducted by high school, college, or university mathematics faculty during 1999–2000. The deadline for proposals is February 5, 1999.

More information about the objectives, evaluation criteria, and submission procedures is available on MAA Online or from the Member Services and Programs Department of the MAA at its headquarters. They can be reached at 202-387-5200; or 800-741-9415.

Conferences continued from page 3

- tury (James Kaput, University of Massachusetts at Dartmouth)
- Technology for the Professional Development of Teachers (Jane Watson, University of Tasmania, Australia)
 - Steering between Skills and Creativity - A Role for the Computer (Celia Hoyles, University of London, U.K.)
 - A Discussion of Classroom Related Research at the Elementary School Level (Jerry P. Becker, Southern Illinois University)
 - Seeking a Balance in Mathematics Education - The Singapore Story (Suat Khoh Lim-Teo, Nanyang Technology University, Singapore)
 - Segyewha (Globalization) of Mathematics Education (Young Han Choe, Korea Advanced Institute of Science and Technology, Korea)

More than one hundred papers were presented, comprising three volumes of conference proceedings. The topic groups were Examination and Evaluation, Curriculum, Teaching and Learning, Primary School Mathematics, Secondary School Mathematics, University/Professional Mathematics, Teacher Training, Gifted Education, Mathematics and Technology, Comparative Study, History and Pedagogy of Mathematics, and Sociomathematical Norms.

ICME-9, the International Conference on Mathematics Education, will be held in 2000 in Japan, and it is expected that EARCOME2 will be held in 2002.

The Third Asian Technology Conference in Mathematics (ATCM'98) was held at the University of Tsukuba in Tsukuba, Japan, from August 24 to August 28. Over 400 hundred people attended the five day conference. Attendees came from Japan, Australia, Singapore, Europe, Taiwan, Guam, the Philippines, Canada, China, and the U.S. Seven plenary lectures were given at the conference:

- Education meets Computer Algebra: A Double Challenge (Bernard Kutzler, Austria)
- Improving Student Understanding about Computational Processes, Problem Solving Techniques, and Proof Using Hand-Held Technology (Frank Demana, US)

- Computer Algebra Systems Ten Years From Now (Benton Leong, Canada)
- From Arithmetic to Algebra and Calculus: Making the Rhetoric of the Function Approach Real (Michal Yerushalmy, Israel)
- Technological Impact of Modern Abstract Mathematics (Tosiyasu Kunii, Japan)
- Automated Reasoning and ICAI - An Educational Software: Solid Geometry (Jingzhong Zhang, China)
- Mathematics that Works in Computer Industry - My Own Experiences Designing and Using High Performance Computers (Ken-ichi Miura, Japan)

In addition, there were about 50 contributed papers on subjects ranging from teaching to research in computer algebra systems. Many of the papers appear in the conference proceedings, which were published by Springer-Verlag. Electronic proceedings are also available at <<http://www.cs.runet.edu/~atcm/EPATCM98>>. ATCM'99 will be held in China in December, 1999. ■

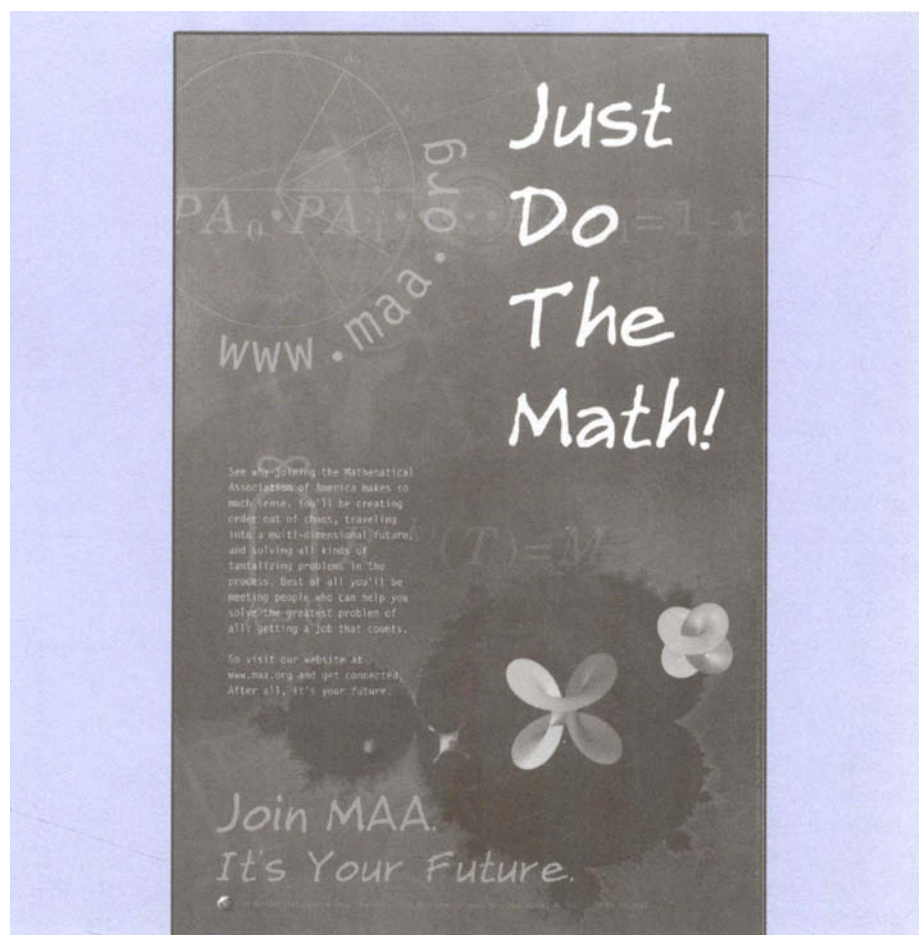
continued from page 1

the MAA Departmental Representatives Program. The participants are referred to as Liaisons to emphasize a fundamental objective of the program: fostering communication between the MAA and its members.

In the past two years, the Liaisons have participated in a network supplying to mathematics departments information of interest to mathematics faculty, as well as attending discussion sessions at section and national meetings and providing reactions and input on the development of the program.

Resources that can assist in this membership effort can be found on MAA Online. If your department does not have a Liaison, you can get information about the Program by contacting Jane Heckler (jheckler@maa.org). Copies of the MAA Poster can be requested from Lou Shomette (lshomett@maa.org) ■

Pass the membership forms on pages 7 & 8 to your colleagues, students or your institution.



New Member Application

Pass this application on to your colleagues. Tell them how they'll want to join 28,000 collegiate mathematicians, professionals, and students who are making a difference to their profession as members. The MAA takes an active role in supporting today's mathematicians, bolstering the choice of mathematics as a vital career, and fostering a new generation of mathematicians. Each member makes that role possible. And, as individuals, each member receives superior journals, discounts on books, networking opportunities through national and regional meetings, and professional development opportunities through minicourses, workshops, short courses, and summer institutes.

NEW MEMBER APPLICATION
THE MATHEMATICAL ASSOCIATION OF AMERICA

Prof., Dr., Mr., Mrs., Ms., etc .	First Name	Middle Name	Last Name
Mailing Address			
City	State	Zip	Date of Birth
Highest Degree Earned	Year Awarded	Awarding Institution	
Employer or Student Institution	Employer's City/State/Zip	Position or Student	
Home Phone	Work Phone	E-mail address	

Were you a member of the MAA before? If so, and your name has changed, write your previous name.

JOURNAL OPTIONS

M = The American Mathematical Monthly G = Mathematics Magazine
 J = College Mathematics Journal

Circle the journal option of your choice and the appropriate membership category.

New Member Rates: One year membership beginning January 1999.

M	G	J	M & G	M & J	G & J	M & G & J
\$78	\$78	\$78	\$97	\$97	\$97	\$116

Student Rates: One year membership beginning January 1999

M	G	J	M & G	M & J	G & J	M & G & J
\$44	\$38	\$39	\$53	\$54	\$48	\$62

One and a half a year (June 1998-Dec. 1999) MAA memberships are available.

All members receive FOCUS, the newsletter of the MAA. Subscription prices may not be deducted from membership dues. Special rates are extended to new members and students. These special rates are not available for renewals.

Payment Enclosed \$_____. Payable to the Mathematical Association of America

PAYMENT METHOD (check one) check enclosed VISA MasterCard

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Expiration Date (Month/Year)

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Mail application with payment to:
The MAA Service Center, PO Box 90973, Washington, DC 20090-0973
Credit card orders may be faxed or phoned:
Fax: (301) 206-9789 or Call (800)-331-1622

F99

Institutional Membership Application

Is your institution a member? Look at MAA ONLINE to check, and if it's not, give this application to your department chair. MAA Institutional Membership is a great way for your institution to support its students and faculty members as mathematicians, as well as to support the profession. As a sponsoring institution, six students may be nominated to receive free memberships—a wonderful introduction to their professional life. And the institution also receives a subscription to the MAA's three expository journals, a copy of the Combined Membership List, and other benefits.

THE MATHEMATICAL ASSOCIATION OF AMERICA

P.O. Box 90973 Washington, DC 20090-0973

1999 INSTITUTIONAL MEMBERSHIP APPLICATION

SPONSORING ACADEMIC INSTITUTIONAL MEMBERSHIP

Basic cost—Includes six nominees \$403.00
 (includes one Faculty or Student and five Student nominees)
 Additional Student Nominees (\$29 each) \$ _____
 Total Payment \$ _____

ACADEMIC INSTITUTIONAL MEMBERSHIP

Basic cost—Includes one Nominee \$270.00
 Additional Student Nominees (\$29 each: If you want
 at least five, move to SPONSORING ACADEMIC option) \$ _____
 Total Payment \$ _____

Method of Payment: (Prepayment required)

_____ Check enclosed
 _____ Charge to ___ Visa ___ Mastercard
 Card Number _____ - _____ - _____ - _____ Expiration Date _____

NOMINEE DATA FORMS: MAA will send nominee data forms for your Institutional Nominee and for each Student Nominee upon receipt of this application.

Institution Name: _____
 Department Name: _____
 Mailing Address: _____
 City: _____ State: _____ Zip _____
 Country: _____ Canadian Province _____
 Phone: _____ Email: _____

EMPLOYMENT OPPORTUNITIES**ARKANSAS****UNIVERSITY OF ARKANSAS****at LITTLE ROCK****Mathematics/Statistics**

Chairperson of the Department of Mathematics and Statistics. Applications are invited for the position of Chairperson of the Department of Mathematics and Statistics available on July 1, 1999. Candidates with a strong record of research in an area of specialization within any field of mathematics or statistics whose experience is commensurate with the rank of Associate Professor with tenure are encouraged to apply. Some administrative and/or professional experience in a mathematical sciences program is desirable. The ability to work effectively with people is important. The chairperson is expected to facilitate the interaction of the faculty with the University of Arkansas Medical Sciences campus, regional governmental organizations, private research and development organizations, and local high schools. The University of Arkansas at Little Rock is a metropolitan institution located in the population center of Arkansas. The current enrollment is about 11,000 students. The position carries a 12-month appointment. Rank and salary will be commensurate with qualifications. The Department of Mathematics and Statistics consists of twenty-four full-time faculty members. In addition to B.A. and B.S. degrees, the Department offers a M.S. Degree in Applied Mathematics. Letters of application should include a curriculum vitae, names, addresses, and telephone numbers of at least three references. Applications received by February 15, 1999 will receive full consideration and should be addressed to: Chairperson, Search Committee, Department of Mathematics and Statistics, University of Arkansas at Little Rock, 2801 South University Avenue, Little Rock, Arkansas 72204. The University of Arkansas at Little Rock is an affirmative action, equal opportunity employer and actively seeks the candidacy of minorities and women. This position is subject to available funding. Under Arkansas law, all applications are subject to disclosure.

CALIFORNIA**CALIFORNIA STATE UNIVERSITY, CHICO
Mathematics Education**

Applications are invited for a tenure-track position in Mathematics Education at the Assistant or Associate Professor level to commence Fall, 1999. Responsibilities include teaching both mathematics and mathematics education courses, supervision of mathematics education Master's degree thesis projects, engaging in scholarly activities in mathematics education, pursuing significant external funding, and service to K-12 teachers. Minimum requirements: a doctorate in mathemat-

ics education or a mathematical science (including at least the equivalent of a strong Master's degree in mathematics); evidence of quality teaching, and capacity for excellence in research, writing, or other scholarly activities. As a University that educates students of various ethnic and cultural backgrounds, we value a diverse faculty and seek to create as diverse a pool of candidates as possible. For further information visit our Web site: <http://www.csuchico.edu/math/>. Submit a letter of application that describes your professional goals and addresses the qualifications and experiences required for this position. Include a vita, three letters of recommendation (including at least one relating to teaching effectiveness) and graduate transcripts. Send to: Dr. Jim Jones, Mathematics Education Search Committee, Department of Mathematics and Statistics, California State University, Chico, Chico, CA 95929-0525. Closes January 29, 1999.

CONNECTICUT**TRINITY COLLEGE, Hartford, CT****Lecturer in the Math Center**

Full-time, contract position beginning late August 1999. Initial one-year contract with possible multi-year continuing appointment. Five courses per year teaching load. Responsibilities include teaching small sections of quantitative reasoning courses, conducting appropriate research, developing courses and course materials, working with faculty at the college to provide quantitative support for their classes, running workshops and initiating and participating in Math Center programs.

The Center is especially interested in finding an individual who can work with the new Math and Science Resource High School adjacent to the Trinity Campus.

Ph.D. preferred, Master's degree in Mathematics and college teaching experience required. Previous work with high school teachers valuable.

Please send a vita, letter of application, and three letters of recommendation on teaching and professional activities to:

Debra Sombric, Secretary
Mathematics Center
Trinity College
Hartford, CT 06106

Evaluation of applications will begin December 1 and continue until the position is filled. Applicants who will be at the January math meetings should so note. Trinity College is an EO/AA employer. Women and minority candidates are particularly encouraged to apply.

FLORIDA**ECKERD COLLEGE**

The Mathematics Discipline is accepting applications for a tenure-track position at the

assistant professor level beginning in the Fall Semester 1999. A Ph.D. degree is required. As an undergraduate liberal arts college, the standard teaching load at Eckerd is 3-1-3. Commitment to teaching, mentoring, willingness to participate in an interdisciplinary general education program, and the potential to engage students in undergraduate research projects are important criteria towards selection. Please send an application letter, resume, transcripts, and three letters of reference, at least one of which addresses teaching effectiveness, by January 1, 1999 to: Dr. David Kerr, Natural Sciences Collegium, Eckerd College, P.O. Box 12560, St. Petersburg, FL 33733. EOE.

IOWA**UNIVERSITY OF NORTHERN IOWA****Assistant/Associate Professor of Mathematics**

Seeking candidates for a tenure-track position who possess a Ph.D. in mathematics, ability and interest in maintaining a superior teaching record, and an emerging record of scholarship. The successful candidate will be expected to teach a broad spectrum of mathematics courses at both the undergraduate and graduate levels. Recent collegiate teaching experience, experience using technology in mathematics courses, and expertise in analysis and/or research interests that are compatible with departmental offerings are preferred.

Appointment begins in August 1999. Salary is competitive with excellent fringe benefits. Application must be received by January 22, 1999 for full consideration. For more information see position announcement at www.math.uni.edu or contact Gregory Dotseth, Department of Mathematics, University of Northern Iowa, Cedar Falls, IA 50614-0506. dotseth@math.uni.edu, 319-273-2397. AA/EOE.

UNIVERSITY OF NORTHERN IOWA**Assistant Professor in Applied Mathematics**

Seeking candidates for a tenure-track position in applied mathematics who possess a Ph.D. in mathematics, ability and interest in maintaining a superior teaching record, and an emerging record of research/scholarship. The successful candidate is expected to teach a broad spectrum of mathematics courses at both the undergraduate and graduate levels. Recent collegiate teaching experience, experience using technology in mathematics courses, and the ability to teach numerical analysis and optimization are preferred.

This appointment begins in August 1999. The salary is competitive with excellent fringe benefits. An application must be received by January 22, 1999 for full consideration. For more information see the position announcement at www.math.uni.edu or contact Min Ho Lee, Department of Mathematics, University of Northern Iowa, Cedar Falls, IA 50614-0506. lee@math.uni.edu, 319-273-2941. AA/EOE.

UNIVERSITY OF NORTHERN IOWA**Assistant Professor of Mathematics
Collegiate Mathematics Education**

Seeking candidates for a tenure-track position in collegiate mathematics education. Candidates must possess a doctorate (by the date of appointment) in mathematics or mathematics education, specializing in the teaching or learning of undergraduate mathematics, the ability and interest to maintain a superior teaching record, and an emerging record of scholarship. Candidates possessing a doctorate in mathematics education should provide evidence of course work through the level of mathematics doctoral comprehensive examinations. The successful candidate will be expected to teach a broad range of mathematics courses at both the undergraduate and graduate levels. Recent collegiate teaching experience and experience using technology in mathematics courses are preferred.

Appointment begins in August 1999. Salary is competitive with excellent fringe benefits. Application must be received by January 21, 1999 for full consideration. For more information see position announcement at www.math.uni.edu or contact Joel Haack, Department of Mathematics, University of Northern Iowa, Cedar Falls, IA 50614-0506. haack@math.uni.edu, 319-273-2397. AA/EOE.

KENTUCKY

CENTRE COLLEGE

The math program at Centre invites applications for a tenure-track position to begin in the fall of 1999. Candidates should have a Ph.D. in mathematics and a strong commitment to undergraduate teaching in a residential, collegiate environment. Centre is a private, nationally respected liberal arts college. The search committee will begin reviewing applications on December 15, but applications will be accepted and considered until the position is filled. Send résumé, a statement about your teaching philosophy and research interests, transcripts, and three letters of recommendation to Dean John C. Ward, Centre College, 600 W. Walnut Street, Danville KY 40422-1394. EOE.

MAINE

BOWDOIN COLLEGE**Department of Mathematics**

A tenure-track Assistant Professorship starting Fall, 1999. Preference given to applicants in the fields of either applied mathematics or statistics. Ph.D. required and evidence of a strong research record or potential expected. We also expect that applicants should demonstrate the potential for excellence in teaching. Normal teaching load is two courses per semester. The department will begin reviewing applications on December 15, but applications will be accepted and considered until the position is filled. Send completed AMS application cover sheet (www.ams.org), résumé, and 3 letters of

recommendation to Chair, Mathematics Department, Bowdoin College, 8600 College Station, Brunswick, ME 04011-8486. Include e-mail address. Bowdoin College is committed to equal opportunity through affirmative action. Women and minorities are encouraged to apply. Bowdoin College is a private, undergraduate institution located half an hour from Portland and 2 hours from Boston. More information about the Department and College can be found at the website www.bowdoin.edu.

MICHIGAN

CENTRAL MICHIGAN UNIVERSITY

Tenure-track assistant professor in statistics, expertise in actuarial science preferred. Second position, pending administrative approval, applied statistics preferred. Req's stat Ph.D. or close to completion, effective communication, commitment to excellence in research, teaching, and grant writing. Send résumé, transcript, and three references to Chair, Department of Mathematics, Central Michigan University, Mt. Pleasant, MI 48859, email: math@cmich.edu, web: www.cst.cmich.edu/units/mth/. Screening begins 12/1/1998. CMU, an AA/EO institution, is strongly and actively committed to increasing diversity within its community (see www.cmich.edu/aaeo.html).

NEW JERSEY

MONTCLAIR STATE UNIVERSITY**Department of Mathematical Sciences**

Applications are invited for a tenure-track position in Pure and Applied Mathematics at the level of Assistant Professor. Starting date is September 1, 1999. The department is particularly interested in candidates with research interests that include applied mathematics especially in the areas of financial modeling or actuarial science. Candidates are required to have a Ph.D. in Mathematics or Applied Mathematics.

Candidates are expected to be active scholars and to participate in professional and grant activities. Applicants must have a strong commitment to quality teaching in a broad range of courses at the undergraduate level and to a more specialized set of graduate courses. The Department of Mathematical Sciences at Montclair State University includes undergraduate programs in Mathematics, Mathematics Education, and Physics; Master's programs in Mathematics, Mathematics Education, and Statistics. Currently, there are thirty full-time faculty in the department.

Applicants should send a vita, a statement of professional goals, research interests and teaching philosophy, and three letters of recommendation to:

Pure and Applied Mathematics Search Committee (V#-2)
c/o Dr. Kenneth C. Wolff, Chair
Department of Mathematical Sciences
Montclair State University

Upper Montclair, NJ 07043

Screening begins immediately and continues until the position is filled. Montclair State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Subject to available funding.

NEW YORK

SUNY COLLEGE at CORTLAND**Mathematics Department Chair**

Seeks a Mathematics Department Chair to start in the 1999-2000 academic year. Teaching responsibilities consist of two courses per semester and student advisement. Administrative responsibilities include preparing teaching schedules (including summer sessions), providing leadership in curriculum development, representing the department in various campus forums, overseeing departmental student advisement, overseeing recruitment and hiring of new faculty, evaluating departmental personnel, and dealing with student concerns. Appointment will be at the Associate Professor or Professor level, commensurate with experience. The position carries tenure and the salary is competitive.

Qualifications include a doctoral degree in one of the mathematical sciences, a minimum of five years teaching experience at one institution, enthusiasm for mathematics education reform, and some administrative experience. Although specialists in all areas of mathematics are invited to apply, applications from those with an interest in teacher preparation will be particularly welcome.

Applicants should furnish a cover letter, vita, graduate transcript, a statement of teaching and administrative philosophy, and three letters of reference. At least one letter should specifically address teaching ability. Applications should be sent to:

Search Committee
Mathematics Department
SUNY College at Cortland
Cortland, NY 13045

The deadline for applications is January 10, 1999. We hope to conduct interviews at the San Antonio meetings in January.

SUNY Cortland is an AA/EEO Employer and does not discriminate in employment or the provision of services on the basis of disability.

SUNY-FARMINGDALE

Department of Mathematics

Anticipated Vacancy for Tenure Track Position(s) - Fall 1999. The Mathematics department of SUNY-Farmingdale announces anticipated vacancy of tenure-track position(s) with a salary range of \$38,000-\$42,000. Minimum qualifications: Ph.D. or D.A. in Mathematics/Applied Mathematics, at least two years of teaching experience on the undergraduate level, strong commitment to teach-

ing of all levels of undergraduate mathematics, and interest in the reform curriculum. Application deadline: must be postmarked no later than January 15, 1999. Send resume with a brief statement of your teaching philosophy, and the telephone numbers of three references (no letters of reference, please) to: Dr. I. Neymotin, Chair of the Search Committee, Department of Mathematics, SUNY-Farmingdale, NY 11735-1021.

YESHIVA UNIVERSITY

Yeshiva College, the small, selective, men's undergraduate college of Yeshiva University seeks a full-time tenure track assistant professor in mathematics beginning Fall 1999. Ph.D. is required, teaching experience at the postdoctoral level is preferred. All fields will be considered. A strong commitment to excellence in undergraduate education and the ability to work well with others in a small department is essential. Send vita and three letters of recommendation on teaching and research to: Mathematics Search Committee, Office of the Dean, Yeshiva College, 500 West 185th Street, New York, NY 10033. EO employer. Women and minorities are encouraged to apply.

OHIO

MARIETTA COLLEGE

Department of Mathematics

The Department of Mathematics invites applications for a tenure-track position at the assistant professor rank; appointment begins August, 1999. A Ph.D. in mathematics is required. U.S. citizenship or permanent authorization to work in the U.S. is also required. Applicants must have a strong commitment to innovative undergraduate teaching. Candidates with interest and experience in current reform efforts in calculus or statistics, including computer math labs, are preferred. The teaching load is seven courses per year and usually includes a wide variety of mathematics courses. Other duties include supervision of honors and senior capstone projects. Marietta College is an independent, selective, coeducational, residential, liberal arts college of 1300 students, chartered in 1835. Its chapter of Phi Beta Kappa was the 16th in the nation. It is located in the historic river city of Marietta, Ohio. Send vita, statement of teaching philosophy, and three letters of recommendation on teaching and research to Prof. John Michel, Mathematics Department Chair, Marietta College, Marietta, Ohio, 45750. Marietta College is an equal opportunity employer that values diversity. Women, minorities, and persons with disabilities are encouraged to apply.

PENNSYLVANIA

BLOOMSBURG UNIVERSITY

Instructor/Assistant Professor, Mathematics
AA#53-8-14, #53-816, #53-8-24, #53-7-123

The Mathematics & Computer Science Department invites applications for four tenure-track

faculty positions beginning Fall 1999. Three positions are in mathematics: all areas of concentration will be considered with special preference for one individual with a research interest in mathematics education. A Ph.D. in mathematics or a related field is preferred but ABD candidates will be considered on a contingent contract basis. Appointments will be made at the rank of instructor or assistant professor. One position is in computer science: all areas of concentration will be considered. A Ph. D. in computer science is preferred but candidates with a Ph.D. in mathematics or closely related field with a strong computer science background may also be considered. ABD candidates will be considered on a contingent contract basis. The appointment will be made at the rank of assistant or associate professor. Duties (for all four positions) include undergraduate teaching, curriculum development, scholarly activities, and service to the university and community. The normal teaching load is 12 contact hours per week with reassigned time competitively available. Demonstrated ability to work with diverse populations preferred. Finalists for these positions must communicate well and successfully complete an interview and/or teaching demonstration. Candidates should send a letter of application, a vita, three letters of reference, and copies of undergraduate and graduate transcripts to: Search and Screen Committee - Mathematics (or Computer Science), Department of Mathematics & Computer Science, Bloomsburg University, Bloomsburg, PA 17815. Applications received by January 19, 1999 will receive full consideration. Members of the Search and Screen Committee will be at the Joint Mathematics Meetings in San Antonio to participate in the Employment Register. For additional information about these faculty positions, benefits and the University, please visit our web site at: www.bloomu.edu/departments/compserv/jobpost/newjob/faculty.html.

MUHLENBERG COLLEGE

Mathematical Sciences Department

Full-time tenure track position beginning August 1999. Duties include teaching undergraduate mathematics courses at all levels, three courses per semester. Although teaching is the highest priority at Muhlenberg, professional activity and service to the college are also required. Doctorate in mathematical sciences required. Teaching excellence must be documented. Full-time teaching experience at the college level preferred. Candidates should have knowledge and experience in the calculus reform movement and be familiar with the use of technology in the classroom. The Department offers BS degrees in mathematics and computer science. The College is an independent, undergraduate, coeducational liberal arts institution. Located in the picturesque Lehigh Valley, just south of the Pocono Mountains, the College is within easy driving

distance of both New York City and Philadelphia. To apply, submit résumé; statement detailing teaching experience, research and educational philosophy; and three letters of recommendation to Dr. John Meyer, Search Chair, Mathematical Sciences Department, Muhlenberg College, Allentown, PA 18104-5586. Application review begins immediately and will continue until the position is filled. EOE. Visit our web site at www.muhlenberg.edu.

PENN STATE UNIVERSITY

Assistant Professor

MATHEMATICS, PENN STATE MONT. ALTO: The Commonwealth College invites applications for this tenure-track position with a starting date of August 1999, or as negotiated. A full description of the positions and its location is available at <http://www.cwc.psu.edu/>. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

TENNESSEE

UNIVERSITY OF TENNESSEE-

KNOXVILLE

The Mathematics Department of The University of Tennessee seeks to fill two tenure track assistant professorships: (1) in probability and stochastic processes, with preference shown to those candidates working in such areas of applied probability as communication networks, mathematical biology and genetics, and mathematical finance, and (2) in computational mathematics, with preference shown to those candidates pursuing new and innovative research in applications of computational mathematics to material sciences, biology, or finance. A Ph.D. is required. Some postdoctoral experience is preferred, but not required. Substantial research promise as well as dedication to teaching are paramount. Employment begins August 1, 1999.

Interested applicants should arrange to have a vita, three reference letters, a research statement (including abstracts), and evidence of quality teaching sent to Professor John B. Conway, Probability Search or Computational Math Search, (whichever applies), Mathematics Department, University of Tennessee, Knoxville, TN 37996-1300. Electronic applications are not acceptable. Use of the recent AMS application form is appreciated. Review of applications will begin December 1 and will continue until the position is filled. Information about the department can be found at <http://www.math.utk.edu/>.

UTK is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA employer.

WASHINGTON

WESTERN WASHINGTON UNIVERSITY

Mathematics Department: Math Education

Tenure-track; Fall 1999. Ph.D. or equivalent and experience in elementary or middle schools preferred. Rank and salary commen-

surate with accomplishments. May be offered on limited term basis. Instruction and program development in K-8 Math Education, teaching math courses and publication expected. Details at www.wwu.edu/~mathweb. Send letter, summary sheet, vita, transcripts and four references by Dec. 18, 1998 to: T. Ypma, Math Ed Search Committee, Math, WWU, Bellingham WA 98225-9063. Disability accom: (360)650-3306; 650-7606 (TTY). WWU has about 500 faculty and 11,500 students beside Bellingham Bay between Seattle and Vancouver, with access to excellent recreational opportunities and metropolitan facilities. AA/EOE.

WISCONSIN

UNIVERSITY OF WISCONSIN OSHKOSH

Two tenure track assistant professor positions to begin September 1999. PhD in mathematics, applied mathematics, statistics or mathematics education required. Excellence in teaching essential; research/scholarship expected. For specific preference areas see www.uwosh.edu/departments/mathematics. Send letter of application describing specifically the contributions expected to be made to department, transcripts, statements of teaching philosophy and research interests to: C. Patrick Collier; Mathematics Department; University of Wisconsin Oshkosh; Oshkosh WI 54901. Three letters (at least one addressing teaching) to come direct from references. Closing date January 15, 1999. UW Oshkosh is an affirmative action/Equal Opportunity Employer and strongly encourages applications from female and minority applicants.

National Meetings

January 13-16, 1999 82nd Annual Meeting, San Antonio, TX; Board of Governors
January 12, 1999

January 19-22, 2000 83rd Annual Meeting, Washington, DC; Board of Governors
January 18, 2000

January 10-13, 2001 84th Annual Meeting, New Orleans, LA; Board of Governors
January 9, 2001

Section Meetings 1998

Eastern PA & Delaware November 7, 1998, Lehigh University, Bethlehem, PA

Indiana November 7, 1998, St. Mary's College, Notre Dame, IN

MD-DC-VA November 13-14, 1998, Towson University, Towson, MD

New Jersey November 1, 1998, Stevens Institute of Technology, Hoboken, NJ

Northeastern November 20-21, 1998, Western Connecticut State University, Danbury, CT

Seaway November 6-7, 1998, Nazareth College, Rochester, NY

USP UNIVERSITY OF THE SCIENCES IN PHILADELPHIA

Growing university seeks to fill an administrative position for July 1, 1999. University of the Sciences in Philadelphia was founded in 1821 as Philadelphia College of Pharmacy. B.S., first professional, M.S., and Ph.D. degrees are offered to more than 2000 students in a wide range of health and basic science programs.

CHAIR OF MATHEMATICS, PHYSICS AND COMPUTER SCIENCE

Requires Ph.D. with expertise in areas of mathematics as applied to health care fields, preferably Biostatistics, Biomathematics, or related area; computer science expertise a plus; successful teaching experience; evidence of excellent administrative skills, preferably at Chair level; evidence of scholarly activity; excellent interpersonal skills. Responsible for leadership of multidisciplinary department; development of departmental strategic plan including departmental major; teaching at undergraduate and graduate levels; independent research program.

Applications for the position will be accepted immediately.

Review begins November 1 and continues until appointment is made.

Send curriculum vitae, cover letter, and names of three references to:

Search Committee - GH212A7

University of the Sciences in Philadelphia

600 South Forty-third Street, Philadelphia, PA 19104-4495

University is an Equal Opportunity/Affirmative Action employer with a strong commitment to racial, cultural and ethnic diversity. Nominations of and applications from women and individuals from a broad spectrum of backgrounds are encouraged.

More extensive job descriptions are posted on our web site, www.usip.edu

Professional Development Calendar

November 1998

November 2-4
Randomized and Derandomized Algorithms for Discrete Structures

Institute for Advanced Study
Princeton, NJ

Contact: Bruce Reed reed@ecp6.jussieu.fr

November 5-8
24th Annual Conference-American Mathematical Association of Two-Year Colleges

Doubletree Lloyd Center Hotel
Portland, OR

Contact: AMATYC Office
(901) 383-4643 amatyc@stim.tec.tn.us

November 18-20
Robust Communication Networks: Interconnection and Survivability

DIMACS Center, Rutgers University
Piscataway, NJ

Contact: Frank Hsu
hsu@murray.fordham.edu

November 19-22
International Conference on Technology in Collegiate Mathematics

Hyatt Regency
New Orleans, LA

Contact: Christine Terrano, (800) 472-6288
christine.terrano@awl.com

January, 1999

January 11-12
MAA Short Course: Mathematics in Finance
Hilton Palacio Del Rio Hotel
San Antonio, TX

January 11-12
Evolution as Computation
Princeton University
Princeton NJ

Contact: Laura Landweber
llf@princeton.edu

January 13-16
MAA Minicourses at Joint Mathematics Meetings

Gonzales Convention Center
San Antonio, TX

January 15-16
Algorithm Engineering and Experimentation
Omni Hotel

Baltimore, MD
Catherine McGeoch, ccm@cs.amherst.edu

For additional information on these and other professional development activities for mathematics faculty, please visit the Professional Development area of MAA Online at <http://www.maa.org>.