MARYLAND-DISTRICT OF COLUMBIA-VIRGINIA

SECTION OF THE MAA

NEWSLETTER

THE MATHEMATICAL ASSOCIATION OF AMERICA

Section Meeting
November 16-17, 1990
Towson State University, Towson, MD

Vol. 12 No. 2

Notes from the Chair

The Mathematical Association of America celebrated the 75th anniversary of its founding at the Columbus meeting. A representative from each section carried a section banner at the opening ceremonies. Former Governor John Smith performed this task admirably for our section. The MAA presented the banners to the section at the close of the ceremony. We will be exhibiting them at future section meetings.

The student chapters received their charters at the meeting. I am happy to report that there are 17 chapters in our section. The colleges with student chapters are Goucher College, Virginia Polytechnic Institute and State University, Washington and Lee University, Mary Baldwin College, Emory and Henry College, Loyola College, Catholic University, Virginia Wesleyan College, Salisbury State University, Old Dominion University, Towson State University, Morgan State University, Liberty University, Mary Washington College, Hampden-Sydney College, Georgetown University, and James Madison University. Nationally there are 258 student chapters. Our thanks to Bill Sanders for heading up this program for the section. Anyone interested in information about student chapters may contact him at the address listed in the newsletter.

The Maryland-District of Columbia-Virginia Section of the MAA was one of the earlier sections formed. Our birth was in 1916. We will be celebrating our 75th anniversary next year. If anyone has any ideas for a special program or project, please contact me or one of the other officers.

We learned at the Section Officers meeting that the national office was increasing the amount of money that it sends to the local sections. In addition the MAA is establishing a distinguished lecture series in honor of George Polya. You may read further details of these items in the Governor's report. Undoubtedly these actions arise from the realization that more people attend and more papers are presented at the section meetings than at the national meetings. If you have not attended a Section meeting in a while, perhaps you should make an effort to attend the November meeting at Towson State University.

The MAA accomplishes its major work through its committees. Anyone interested in serving on a national committee may write to Gerald Alexanderson, the secretary of the MAA, at the Department of Mathematics, Santa Clara University, Santa Clara, California 95053. You should include your name and address, what committee(s) you are interested in, your activities in the section and your relevant experience.

The MAA has raised through pledges about $300,000 for renovation of the headquarters building. The MAA presence in the nation's capital will serve to keep our interests before the federal government. If the fundraising campaign is successful, the MAA will be debt free by 1993. All funds will then be available for the promotion of mathematics. I urge you to contribute if you have not already done so.

The MAA has published a new pamphlet entitled Careers in the Mathematical Sciences. You may obtain one free copy by writing to the national office. Multiple copies cost $0.25 a piece up to 100 copies or $20 in multiples of 100.

In closing, I want to express the gratitude of the Section to three officers who have completed their terms: David A. Schedler as Treasurer, Helen Christensen as Vice-Chairman for Programs, and Elizabeth Teles as Past Chairman. My job was much easier due to their efforts and dedication. I thank them for all that they have done.

John Milcetich

Governor's Report

There were several topics at the Board of Governor's meeting that are of interest to the section. First, the contribution to section that comes from MAA dues has been doubled. This will be of considerable help to the section. Second, the Board approved the creation of Poyla Lectureships. These will be people who are outstanding lecturers. They will give talks at section meetings and their expenses will be covered by the National. Each section would be able to have one of these speakers approximately once every five years.

There was one issue that was tabled for consideration at the next meeting that effects the section. The proposal is to institute an annual award for outstanding teaching. Each section would be asked to nominate a candidate for this award and then a committee would select a national winner. I feel that this idea is wonderful but I have reservations about how our section would choose its nominee. I am certain that we could select an outstanding teacher but I find it hard to believe that we could select the best teacher in the section. The selection would depend on the ability of the person who wrote the recommendation. Institutions that are active in the section, such as my own, might have an unfair advantage because our people are better known in the section. If you have any thoughts on this topic, please let me know since we will have a vote on this proposal in January.

There have been several reports lately on the state of Mathematics and Mathematics Instruction in the United States. I have included a list below of some of the important documents. I urge you to look at these reports. One that is still in draft form should be of particular interest to those of you who are involved in teacher preparation. This is the last report. It is indeed a call for change. If the recommendations are adopted, they will have a profound effect on the way we teach the teachers. I strongly suggest that if you are interested in teacher training, you obtain a copy of the draft report and make written comments both to the committee that is drafting the report and to me by November 15.

Howard Lewis Penn

TITLE	PUBLISHER
Everybody Counts (Single copy, $7.95, 2-9copies, $6.50, 10 or more, $4.95 each)	National Academy Press 2101 Constitution Ave., NW Washington, DC 20418 1-800-624-6242
Reshaping School Mathematics: A Philosophy and Framework ($7.95 each)	National Academy Press
A Challenge of Numbers ($9.95 each)	National Academy Press
On the Shoulders of Giants ($17.95 estimated)	National Academy Press
Renewing U.S. Mathematics: A Plan for the 1990's ($15.00 each)	National Academy Press
Renewing U.S. Mathematics: Critical Resource for the Future (Out of Print) (Xerox copies available from NTIS)	NTIS, Publication, #PB84-231604, (703)487-4650
Curriculum and Evaluation Standards for School Mathematics ($25.00 each)	National Council of Teachers of Mathematics 1906 Association Drive Reston, VA 22091
Professional Standards for Teaching Mathematics (To be released Spring, 1991)	National Council of Teachers of Mathematics

The meeting was called to order at 11:37 am by Section Chairman, John Milcetich, and the minutes of the previous meeting were read and approved.

According to Treasurer David Schedler, our balance as of April 27,1990, was $5658.42, which represents a loss of $187.72 since November 11, 1989.

Howard Penn, Section Governor, presented a report on the Governor's Meeting. The distinguished service award was presented to John Smith at the Louisville meeting. Then there were two issues over which there was disagreement.

1.Should the U.S. attend the 1990 Mathematics Olympiad in Beijing? The governors decided the U.S. should attend provided it was deemed safe.

2. Should the MAA accredit mathematics programs? On one hand, it would provide local leverage for change. But, on the other hand, mathematics is a very diverse field, making accreditation requirements difficult to determine. Furthermore, MAA people are already "stretched thin."

Ben Fusaro announced the registration figures for the MAA summer courses. The Neural Networks workshops had a registration of 12. He also announced that in the Mathematical Contest in Modeling, 235 papers were submitted, which was an increase over the previous year. Four local teams' papers were judged meritorious. He then made a few remarks about the student conference held at Goucher College on April 21. Evaluation forms given out at the conference showed a very positive response.

The nominating committee, consisting of Robert Lewand and Liz Teles, nominated Helen Christensen for chairman-elect, Mary Kay Abbey for vice-chairman for programs, and Bob Tardiff for treasurer. These three were elected by acclamation.

William Sanders announced that there are now MAA student chapters at Goucher, Virginia Tech, Emory & Henry College, Washington & Lee University, Mary Baldwin College, Loyola College, Catholic University, Virginia Wesleyan College, Salisbury State University, and Old Dominion University.

Awards were presented to the Mathematics Contest in Modeling team members from James Madison University, Mount Saint Mary's College, and Georgetown University.

Ann Wagner of Towson State University invited everyone to the fall meeting to be held at Towson State University on November 16 and 17, 1990.

The meeting was adjourned at 12:22 pm.

Spring Meeting Information

Location: Towson State University:

Towson State University is a liberal arts-based comprehensive university offering bachelor's and master's degree programs in liberal arts and sciences, pre-professional and professional fields of study. Founded in 1866 it is now located on a beautifully landscaped 326-acre campus just north of Baltimore. The campus combines 34 modern and renovated buildings with open and recreational space.

The Department of Mathematics offers a major in Mathematics, Secondary Education and a minor in Mathematics with concentrations in Pure Mathematics, Actuarial Science, Applied Mathematics, and Applied Mathematics and Computing. In addition, second major programs are offered in conjunction with the Department of Economics, Marketing, Management, and Computer and Information Sciences. The award winning Applied Mathematics Laboratory has successfully given talented upperclass students an opportunity to work on a research team under faculty supervision with a local industry or business sponsor.
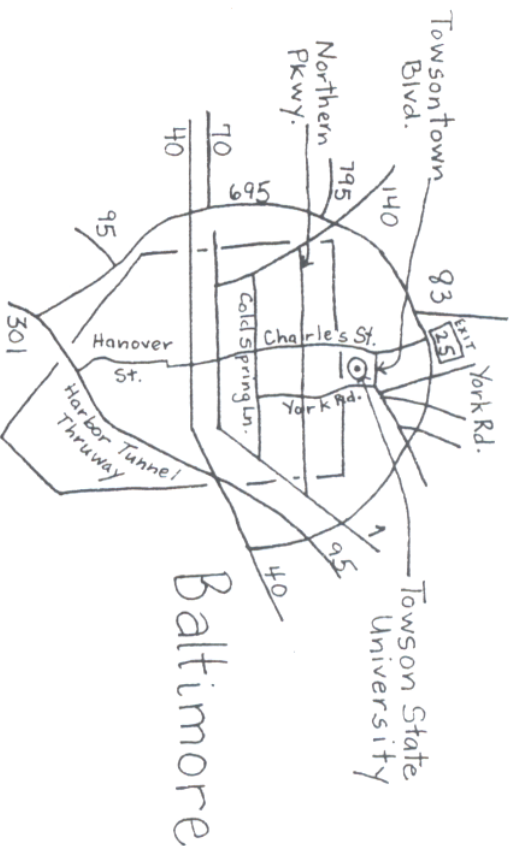
Within an eight-mile radius of the campus are all the cultural advantages of the city of Baltimore - Harborplace, National Aquarium, Maryland Science Center, Peabody Conservatory of Music, Walters Art Gallery, Baltimore Museum of Art, Meyerhoff Symphony Hall, Lyric Opera House, and numerous theaters, museums and libraries.

All activities will be held in the University Union.

Mini-Course (Friday)	Chesapeake II	3rd floor
Reception	Potomac Room	2nd floor
Banquet	Potomac Room	2nd floor
Registration	Lobby	3rd floor
Welcome/Keynote	Chesapeake I	3rd floor
Luncheon	Susquehanna Room	2nd floor

Directions:

To reach Towson State University via the Beltway (I-695) take exit 25, Charles Street. Proceed south on Charles to Towsontown Blvd. and make a left turn. Towsontown Blvd. is the second signal south of the Beltway on Charles Street and a sign is posted at this intersection indicating the left turn to Towson State University. Follow Towsontown Blvd. east to the campus to Osler Drive (right) to the parking garage (left) and University Union.

Lodging Information:

A block of rooms has been reserved at each of the following motels for Friday night. Mention that you are attending the MAA Fall meeting when you call. To reserve at the rate quoted make reservations as soon as possible.

Quality Inn
Towson Conference Ctr.
1015 York Road
(301)825-9190
$45.00
Exit 26S (1.5 miles)

Days Inn Baltimore East
8801 Loch Raven Blvd.
(301)882-0900
$41.60
Exit 29B (3 miles)

Sheraton
Towson Conference Ctr.
903 Dulaney Valley Rd.
(301)321-7400
$65.00 single, $77.00 double
Exit 27S (1.5 miles)

Holiday Inn North
8712 Loch Raven Blvd.
(301)823-8750
$42.00 single, $59.00 double
Exit 29B (3 miles)

MD/DC/VA SECTION MEETING, MAA
SATURDAY, NOVEMBER 17, 1990
TOWSON STATE UNIVERSITY

8:45 - 11:00 Registration

9:00 Welcome

9:15-10:15 Update on Local Mathematics Coalitions
Panel led by Professor Nelson Markley, University of MD

10:15 Contributed Paper Session I
"Recruiting Minorities into Mathematics" - Tony Hawkins, MAA
"Geometry of Correlation" - Clifford Maloney
"Non-western Mathematics in the University Classroom" - Vistor Katz, UDC
"APL: A Programming Language" - Edward J. Danial, Towson State

10:45 Contributed Paper Session II
"Mathematics Day at TJ" - John M. Smith, George Mason University
"The Overdamped Spring" - J.P. Coughlin & E.D. Richman, Towson State
"A Mathematician Ventures into the Physics Classroom" - Milton P. Eisner, Mount Vernon College
"On the Map Operator and the Reduction Operator" - Vojislav Stopkovic, Morgan State University

11:15 MD/DC/VA Section Business Meeting

12:00 Lunch

1:00 Invited Speaker: Joe Gallian
"Mathematics of Identification Numbers"

2:00-2:30 Contributed Paper Session III
"From Math Bewareness to Math Awareness" - Rodica Simion
"The Necessity for Nonstandard Analysis" - Robert A. Herrmann, USNA
"Box and Hausdorff Dimensions of Fractal Sets" - Mark Smiley, Goucher College
"Complexity of Restricted Connectivity of a Graph" - Andrew D. Oh, St. Mary's College

2:30-3:00 Contributed Paper Session IV
"Benjamin Banneker" - Florence Fasanelli, MAA
"Matrix Representation of Finite Fields" - William P. Wardlaw, USNA
"A Tridiagonalization Process for Unsymmetric Matrices" - Cathy Smiley, Towson State
"The Effect of Structured Notetaking on Student Success in Calculus I" - Eugene Brown, NVCC

3:00 Student Chapter Swap Session
Chapter Leaders and Students

WORKSHOPS

Friday Workshop: Graphing Calculators in the Classroom
(3:00 to 6:00) (Casio and TI)
Presented by Gregory D. Foley
Sponsored by Addison Wesley

Greg Foley is associated with the Ohio State University. He has been working with Franklin Demana and Bert K. Waits. He is one of the authors of the laboratory manual that accompanies the Demana/Waits Precalculus Series.

Cocktail Hour: Sponsored by Towson State University
(6:00 to 7:00)

Banquet Speaker: Presented by Bill E. Bompart
(7:00) A Mathematics Appreciation Course (Humorous)

Bill E. Bompart received his BS degree from the University of Texas, MEd from North Texas State, MRE degree from Southwestern Baptist Theological Seminary and his PhD from the University of Texas. He has been at Augusta College in Georgia since 1967. Currently he is the Vice-President for Academic Affairs.

Saturday Speaker: Presented by Joseph A. Gallian
(1:00) Mathematics of Identification Numbers

Joseph received his PhD from the University of Notre Dame and has been associated with the University of Minnesota since then. He has presented numerous talks for both the national MAA meetings and local chapters. He is the author of *Contemporary Abstract Algebra* and many papers. The University of Minnesota has honored him with its distinguished teaching award. The MAA chapter in Minnesota has benefited from his taking over various leadership roles.

CAMPUS NEWS

Emory & Henry College: *New hire:* David D. Hill, Ph.D.(MA &Ph.D. from VPI).

George Mason University: *New hire:* Prof. Carlos A. Berenstein, Complex Analysis, New York Univ. (1970), and Assoc. Prof. David F. Walnut, Harmonic Analysis, Univ. of Maryland (1989); *Promotion:* Timothy D. Sauer to Associate Professor;

Retired: May Kay Cabell, 1970-72 Secretary of MD-DC-VA Section of MAA.

James Madison University: *New hire:* Dr. Laurie A. Hulbert, Assistant Professor, Numerical Analysis, Cornell University; *Promotion:* Dr. John C. Klippert, Full Professor and Dr. Rickie J. Domangue, Associate Professor; *Tenured:* Dr. John T. Marafino and Dr. Rickie J. Domangue; *Retired:* Dr. Gordon M. Fisher; *Other news:* Dr. John C. Klippert received the 1990 James Madison University Distinguished Teaching Award.

Randolph Macon Woman's College: *New hire:* Martha E. Dasef, Ph.D., Virginia Tech; *Promotion:* Paul Irwin to Professor.

Roanoke College: *New hire:* Mrs. Carolyn S. Pierce, MA , Univ. of Louisville; *Promotion:* Dr. N.Jane Ingram, Full Professor and Dr. Roland B. Minton, Associate Professor, *Tenured:* Dr. Roland B. Minton.

William and Mary College: *New hire:* Roy C. Mathias, Associate Professor, Matrix Theory and Numerical Analysis, Johns Hopkins (1989); *Promotion:* Rex K. Kincaid, Associate Professor; *Other news:* the Mathematics Dept. ran a summer program, Research Experiences for Undergraduates, co-sponsored by NSF.

Send your news items to: John August, Editor.

Call For Papers

For the Spring Meeting: February 15, 1991
For the Fall Meeting: September 8, 1991

MD-DC-VA Future Meeting

Spring 1991 Meeting: April 27, 1990
Virginia Commonwealth University

MORE NEWS

1990 Mathematical Sciences
Department Chairs Colloquium

The 1990 Mathematical Sciences Department Chairs Colloquium sponsored by the Board on Mathematical Sciences, National Research Council, will be held on October 19-20, 1990, in the Washington, D.C. area. The theme of the 1990 colloquium is "Departmental Outreach." The program is designed to provide information chairs may use to foster departmental interaction with various constituent groups and external agencies.

In addition to a broad-based panel presentation/discussion on departmental outreach, the program includes: a report by the Committee on the Mathematical Sciences in the Year 2000, panels on women and minorities in mathematics, and the teaching of statistics in mathematics departments. The program also includes two panels of representatives of federal agencies that fund mathematical sciences projects: one panel will discuss programs concerned with education and the second will provide information concerning research oriented programs. Ample opportunity will be provided for personal interaction with representatives of these agencies in both formal and informal settings.

Chairpersons may be particularly interested in the workshop on renewing U.S. mathematical sciences departments based on the recent BMS report, *Renewing U.S. Mathematics: A Plan for the 1990s*, the David II Report, and the MS 2000 reports. The registration fee is $160 and includes all Colloquium sessions, materials, and related meals and social activities. Early registration is advised. For further information, contact the Board on Mathematical Sciences at (202)334-2421. The mailing address is:

Board on Mathematical Sciences
National Research Council
2101 Constitution Avenue, NW
Room NAS 312
Washington, D.C. 20418.

PRIMUS

A new journal, *PRIMUS - Problems, Resources, and Issues in Mathematical Undergraduate Studies*, is a forum for the exchange of ideas on teaching and learning mathematics at the college level. *PRIMUS* is a refereed quarterly, devoted to dialogue and exchange of ideas among those interested in undergraduate mathematics.

The journal is published in March, June, September, and December of each year. Volume I, Number 1 is the March 1991 issue. Each issue contains 96 pages of relevant and worthwhile material for those interested in collegiate mathematics education. Annual subscription rates are $34.00 US per year. Contact:

PRIMUS
Rose-Hulman Institute of Technology
Terre Haute, IN 47803
(812)877-8412
BITNET:WINKEL@ROSEVC.ROSE-HULMAN.EDU

Senior Scientists and Engineers (SSE)

The SSE program is a national cooperative effort of leading scientific engineering and medical societies for the purpose of applying the knowledge and experience of senior scientists and engineers to the needs of the nation. SSE is composed of men and women who would like to volunteer their services for worthwhile public activities.

America cannot afford to waste the accumulated expertise of senior professionals. They can continue to make vital contributions to improving science education, community development, environmental quality, transportation, communication, energy, health care and other such concerns of national importance.

The projected shortages of skilled scientific and engineering personnel are severe; SSE can help alleviate them. For further information contact:

Laura Mann
Senior Scientists and Engineers (SSE)
American Association for the Advancement of Science
1333 H Street, N.W.
Washington, D.C. 20005
(202)326-6664.

The New Maryland Mathematics Coalition (MMC)

For the last nine months several of us from different parts of the Maryland's mathematical community have been busy planning a coalition for Maryland. MMC will be officially launched this fall and begin charting its own course. Among the first items on its agenda will be to create a structure that will encourage many individuals, schools, colleges, corporations, and government agencies to join the effort. From a wide range of affiliates the Governing Board will be looking for information, ideas, and support. They are already planning to participate in several fall meetings to establish strong ties with all facets of mathematics education in Maryland.

For more information on the MMC contact:
Nelson G. Markley
For the Planning Committee
Maryland Mathematics Coalition
Department of Mathematics
University of Maryland, College Park
College Park, MD

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(301)830-3086 (or -3091)

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David A. Schedler
VA Commonwealth University
(804)367-1301

REGISTRATION FORM FOR FALL MEETING

Registration Fee $5.00
  (students are free)   Number of Students _____

Workshop Registration $20.00 _____

Banquet and Luncheon Details

A reception and the MAA Fall Meeting Banquet have been planned for Friday evening Nov. 16th at the University Union, Potomac Room. The reception is being sponsored by the College of Natural and Mathematical Sciences at TSU. All are invited even if you cannot attend the banquet. There will be cheese and crackers as well as wine, beer, and soft drinks at the reception.

Luncheon Details $9.00 _____

Cold Buffet: Roast beef, turkey, ham, salami, Swiss cheese, American cheese, relishes, cole slaw, potato salad, lettuce, tomatoes, breads, beverage and dessert.   (How many ?) _____

Banquet Details

Choice of Entree:
  Crab Stuffed Filet of Sole $16.50 _____
  London Broil au Jus   (How many?) _____
                                 (How many?) _____
Includes: Soup, salad, vegetable, rice, dessert, and beverage.

Vegetarian meal available upon request.   Total _____

Name(s) _____

Address _____
        _____
        _____

Make checks payable to MAA and send to :
        Bob Tardiff
        Salisbury State University
        Dept. of Mathematical Sciences
        Salisbury, MD 21801

(Deadline: November 7, 1990)