Section Chair's Report

Many of us feel that our departments are not credited with the contributions they make to their institutions. It has been noted that mathematics departments are politically weak. But do we bring some of it on ourselves by our refusal to stand up and be noticed...? For example, the MAA has trouble getting nominations from Sections for the Distinguished Teacher Award. If we don't nominate our colleagues, who will...?

Our Section has about 150 colleges or universities. Surely at least one-in-five has a teacher worthy of nomination. Or to put it another way, there are probably about 1000 math science teachers in those schools. Surely at least one out of 20 is worthy of nomination. A nomination of a worthy colleague is a win-win-win-win situation: You will feel happy, your worthy nominee's esteem will be bolstered, the department will gain notice, and your institution will get free, high-level PR.

So, loosen up, Section members, especially Institutional Rep's, and cast a benign eye on your fellow workers in the academic vineyards. All it takes is a one-page memo. Put it in a sealed envelope, write "MAA Nomination" on it, drop it in an envelope and send it to me. It will be forwarded to our Distinguished Teacher Committee. Start thinking about it *now* and send me an envelope-within-an-envelope this week.

The MAA Student Chapters Committee awarded nine sections $900 each to hold a student conference in 1993-94. We received one of the awards. The theme of our conference will be Environmental Mathematics, and it will be held along with our spring 1994 meeting, Friday-Saturday, 15-16 April at St. Mary's College. The tentative program calls for a Friday dinner banquet, a student presentation session, a workshop, and a careers session. Three student meals and lodging will have hefty subsidies, thanks to a non-MAA contribution. (More on that later.) Why not begin priming your students now...?

Hope to see you at Montgomery College, Takoma Park in November.

Ben Fusaro

Fall Meeting

Montgomery College
Takoma Park Campus

November 12 - 13, 1993

Details inside!

Governor's Report

From August 14 - 18 I attended the joint summer meeting of the Mathematical Association of America (MAA) and the American Mathematical Society (AMS) in Vancouver, Canada. I was there to represent the MD-DC-VA Section as governor as well as NSF. This was as usual an exciting, interesting, and fun meeting.

Mathematically the most exciting part of the meeting was the lecture by Barry Mazur of Harvard University of Fermat's Last Theorem. Mazur was one of the ten or so mathematicians on whose work Andrew Wiles' proof is strongly based. The 500 seat room that they had scheduled for the lecture was completely full half an hour before the lecture began (I had arrived about 40 minutes before with friends). They showed it by closed circuit TV to another 600 plus and video-taped it to show other times during the conference. It's a really exciting time for the mathematics community, and I feel lucky to have been there to participate.

The Board of Governors met all day on Saturday August 14. A large part of the meeting was used to discuss potential MAA electronic services. This summer the MAA was very interested in electronic services that can be offered its members. MAA has recently gotten its own Internet node after being connected through the University of Maryland for years. They are now discussing what services they should provide members. The major discussions centered around access issues as well as creative uses of electronic services. Ideas for the MAA site included:

• MAA services like calendars, meeting announcements and registrations, professional development opportunities, publications and the like, and

• services related to mathematics education and research like bulletin boards, dissemination of educational materials including ftp access to software and curriculum materials, electronic publishing of journals, etc.

Let's plan to take some time at the fall meeting to discuss electronic services.

The MD-VA-DC Section was well represented at the meeting. At the Section Officers' meeting we had more participants than any other section. These included Helen Christensen, Ben Fusaro, Kevin Colligan, Genevieve Knight, and myself. Part of the discussion here centered around the MAA teaching awards. Information has been distributed to departments about this award. We hope to receive a lot of nominations for the many exceptional teachers at the colleges and universities in our Section. We are especially proud of Genevieve Knight who received the award from our section at the meeting in Newport News. Congratulations, Genevieve!!!

The summer meetings always have many opportunities for informal meetings and fun with others. These included a salmon roast and the awards banquet. Vancouver is a lovely beautiful place with lots of water and mountains and gorgeous flowers. The seafood at the downtown restaurants was delicious. We also found that the meeting carried us back to our college days. Helen Christensen and I and four other women shared a six room "suite" in the dormitory. You might be surprised that six people can actually share one bath with no difficulty at all. Dorm living for five days however makes one thankful to be home.

I'm looking forward to seeing all of you at the fall meeting at Montgomery College in Takoma Park -- my home institution. We promise you a good meeting with lots of good mathematics and good fun!!

Elizabeth J. Teles

Mathematical Association of America
Maryland/DC/Virginia Section
Fall Meeting, November 12-13, 1993

Montgomery College
Takoma Park, Maryland

The Fall meeting of the Section will be held on Friday and Saturday, November 12 and 13, on the Takoma Park campus of Montgomery College. Takoma Park is a suburb of Washington, D.C., on the northeast side of the city and inside the Beltway. The meeting program features a banquet, two invited speakers, a panel discussion and workshop, and five contributed paper sessions, including one made up entirely of student presentations. This promises to be an exciting and interesting meeting; we look forward to seeing you there.

Invited Speakers

Dr. Keith Devlin is Dean of the School of Science and Professor of Mathematics at St. Mary's College of California. A native of England, he has written five research monographs, four mathematics textbooks, three general market mathematics books, and about 60 published research articles. He is currently editor of the "Computers and Mathematics" section of the AMS *Notices*, editor of FOCUS, the MAA news magazine, a member of the MAA's Publications Committee, and Chair of the Newsletter Editorial Committee.

From 1983 until 1989, he wrote a twice-monthly column on mathematics and computing in *The Guardian*, and worked on a number of mathematically-oriented television programs, notably the BBC/Nova documentary *A Mathematical Mystery Tour*, first broadcast in 1985.

A specialist in mathematical logic, he is interested in fundamental issues in information processing and communication, both for man and machine.

Dr. Devlin will speak on **"Whose Mother Is It? In Search of a Mathematical Theory of Communication"** at the Friday night banquet.

Dr. Underwood Dudley is Professor of Mathematics at the DePauw University. He was born in New York City and received his doctorate in Number theory from the University of Michigan. He has published a number theory text, a book of readings for calculus, a trisection book, and *Mathematical Cranks*.

He is editor of the *Pi Mu Epsilon Journal* and an associate editor of the *Monthly* and of *Mathematics Magazine*, the latter for 16 years.

He has an Erdös number of 1.

Dr. Dudley will be our speaker at the Saturday luncheon; his topic is **"Angle Trisectors."**

Remember to register by October 31st!

Panel Discussion and Workshop

The National Science Foundation has been a major supporter of innovation in collegiate mathematics. This support has been primarily through the following programs in the division of Undergraduate Education (DUE):

- Calculus and the Bridge to Calculus
- Course and Curriculum Development
- Faculty Enhancement
- Instrumentation and Leadership Development.

In addition, the division is now initiating two new programs: *Mathematical Sciences and Their Applications throughout the Disciplines* and *Advanced Technological Education*. On Saturday afternoon, there will be a panel discussion on **NSF Innovation Grants: New Opportunities**. It will be followed by a workshop on **Grant Opportunities for Innovation in Collegiate Mathematics**. The workshop will be an interactive session where participants will be given the opportunity to interact with an NSF program director. In the second half of the workshop, participants will review proposals and learn how to write a better proposal.

Fall Meeting Registration

Please complete and return to **Jon Scott, Department of Mathematics, Montgomery College, Takoma Park, MD 20912** by <u>October 31.</u>

___| Meeting registrations @ $5.00 (free for students) *5.00*

___| Tickets for Friday night banquet @ $20.50 . . . . *20.50*
  (stuffed chicken breast with wild rice, string beans with almonds,
   baby carrots, house salad, ice cream cake with chocolate sauce)

___| Tickets for Saturday lunch (deli sandwiches, salad, cookies, soda) @ $7.50 . . . . . *7.50*

TOTAL *33.00*

Make check payable to MAA.

Name(s)_____

Adddress _____

_____

_____

Meeting Program

Friday, November 12

<u>6:30 - 7:00 p.m. -- Social Hour</u>
Holiday Inn, Silver Spring
Champagne punch and cheese

<u>7:00 -- Banquet</u>
Holiday Inn, Silver Spring

Invited Speaker:
Dr. Keith Devlin
"Whose Mother Is It?
In Search of a Mathematical Theory of Communication"

Saturday, November 13

<u>8:00 - 11:30 -- Registration</u>
Resource Center

<u>8:30 -- Welcoming remarks</u>
Resource Center

<u>8:50 - 9:20 -- Contributed Paper Session I</u>
All contributed papers are given in the Math Pavilion

Room Speaker

140   Howard Lewis Penn, U.S. Naval Academy
      Fun With Parametric Equations

141   John Biggs and Pat Gladu, Frostburg State
      University
      Farm Soil Conservation Modeling

142   Ferdinand Wang, American University
      *An Introduction to Modelling of Economic
      Time Series*

143   Robert A. Herrmann, U.S. Naval Academy
      *Partial Differential Equations, Separation of
      Variables, and Relativistic Alterations*

<u>9:30 - 10:00 -- Contributed Paper Session II</u>

Room Speaker

141   Vojislav Stojkovic and Samir Tannouri,
      Morgan State University
      *Accumulate & Reduce Functions
      Programming in Mathematica*

142   Peter A. McCoy, U.S. Naval Academy
      *The Use of Symmetry in Solving Boundary
      Value Problems on the Line*

143   Dan Kalman, American University
      *A Geometric View of the Auxiliary
      Function Approach to Lagrange
      Multipliers*

10:10 - 10:40 -- Contributed Paper Session III

Room Speaker

140 Allen P. Flora, Hood College
MathCad in the Introductory Physics & Calculus Courses: Are We Still Ignoring Air Resistance?

141 Ahlam El-Hage Tannouri, Morgan State University
Competition Models and Mathematica

142 Doug Peterson, Hood College
Hamiltonian Cycles in Bipartite Plane Cubic Maps

143 Jon Scott, Montgomery College
Denny Gulick, University of Maryland
Chaotic Dynamics

10:50 - 11:20 -- Contributed Paper Session IV

140 Chris Wagner, Loyola College
Strategy of a Game Using a Grundy Function

141 Matt Fivash, American University
A Comparison of the Fourier and Wavelet Transform

142 Mérida Baque and Rachel Paine, Hood College
An Afternoon at Baskin-Robbins

143 Melissa Haller, Hood College
The Red Delicious Apple Dilemma

11:30 - 12:15 -- MAA Business Meeting
Resource Center

12:25 - 2:30 -- Luncheon
The Commons

Invited speaker: Dr. Underwood Dudley
"Angle Trisectors"

8

2:40 - 3:10 Contributed Paper Session V

Room Speaker

141 Eun-Ho Lee, Morgan State University
Semisimple Semigroup (Preliminary Report)

142 J. Bernard Nestor, Morgan State University
Classical Induction Results Without Induction

143 Stephen D. Casey, American University
Solving Bezout Equations Using Sampling

2:40 - 3:30 -- Panel Discussion
Resource Center

NSF Innovation Grants: New Opportunities

Elizabeth Teles, Montgomery College
Genevieve Knight, Coppin State College
Jim Sandefur, Georgetown University

3:30 - 5:00 -- Workshop
Math Pavilion, Room 140

Grant Opportunities for Innovation in Collegiate Mathematics

Elizabeth Teles, Montgomery College and NSF

3:30 - 5:00 -- Workshop

Energy Systems Modeling

A follow-up meeting of the June 1993 Section workshop

Campus News

At **Roanoke College**, *Suzanne Glass* was promoted to Associate Professor, *emerita*, and *Jeffrey Spielman* was promoted to Full Professor. *Jan Minton* is visiting from Clemson, and *Patches Mabe* from Virginia Tech.

Dan Kalman is a new Assistant Professor at **American University**. A graduate of the University of Wisconsin, Prof. Kalman's specialty is numerical linear algebra. Visiting American this year are *Ali Enayat* from Tehran and *David Crosby* from the National Oceanographic and Atmospheric Administration.

The **University of Maryland, Eastern Shore** offers a master's degree in applied computer science; for information, contact Shirley Corbin at (410) 651-6011.

Technology Workshop on Geometer's Sketchpad

The MAA and Towson State University announce a minicourse on using Geometer's Sketchpad in mathematics classes on **Saturday, December 11** from 9:00 a.m. to 3:00 p.m. The presenter will be **Dr. Doris Schattschneider** of Moravian University. She will focus on how to use the software and on applications to a variety of courses and research. For further information contact either:

William Moulds   -or-   Lisa Johnson
Mathematics Department   MAA
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Towson, MD 21204   Washington, D.C.
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      (202) 387-5200

Mathematics Awareness Week Visuals

Available from: Joint Policy Board for Mathematics
1529 Eighteenth Street, NW
Washington, D.C. 20036
(202)234-9570

"Mathematics & Manufacturing" Poster -- 1993 MAW (color) $6.00

"Mathematics & Manufacturing" Postcards -- 1993 MAW (color) 1.50

"Mathematics & the Environment" Poster -- 1992 MAW (color) 5.00

"Mathematics & the Environment" Postcards -- 1992 MAW (set of 4, 1 design) 1.00

"Mathematics: IT'S Fundamental" Poster -- 1991 MAW (color) 4.00

Mathematics Applications Postcards -- 1991 MAW (set of 4, 1 each of 4 designs) 2.00

"Communicating Mathematics" Poster -- 1990 MAW (color) 4.00

"Mathematics: Discovering Patterns" Poster -- 1989 MAW (black & white) 2.00

"Umbilic Torus" Poster -- 1989 MAW (color) 4.00

1 EACH OF 6 POSTERS (a $23 value) 15.00

All posters are rolled and mailed in a tube. Prices include postage.
All orders must be prepaid. Please make check out to AMS.

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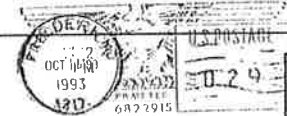Arlington, VA 22230
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October 1993