



Maryland-District of Columbia-Virginia
Section of the
Mathematical Association of America

Newsletter, Spring 1994

Vol. 15, No. 2 (Final)

Editor: Betty Mayfield

February 1994

Spring Meeting
St. Mary's College of Maryland
St. Mary's, Maryland
April 15-16, 1994

The Spring meeting of the Section will be held on the campus of St. Mary's College on Friday and Saturday, April 15 and 16. The College is located on the scenic St. Mary's River in southern Maryland, and adjoins historic St. Mary's City, the site of the first colonial settlement in Maryland.



Local attractions include Point Lookout State Park, Patuxent River Naval Air Test and Evaluation Museum, Sotterley Mansion, Calvert Marine Museum, St. Clement's Island-Potomac River Museum, and many historic churches. The region is known for its delicious seafood; there are many crab and seafood houses in the area, featuring the finest and freshest seafood available in the Chesapeake Bay region!

The mathematics program at St. Mary's, which offers elementary and advanced courses in both mathematics and computer science, recently moved into the new Science Building on campus. This state-of-the-art center features classrooms equipped with computers and computer laboratories. All MAA sessions will be held in the Science Building; the meeting program is enclosed.

A Student Conference on Environmental Mathematics will be held concurrently. See the information in this Newsletter.

We look forward to seeing you *and* your students at St. Mary's!

Governor's Report

From Monday, January 10 - Sunday January 16 I attended the annual joint winter convention of the AMS and MAA in Cincinnati. On Tuesday I attended the meeting of the MAA Board of Governors. One of the highlights was the discussion about the new journal being published by MAA for students. I hope that each of you have seen this journal called *Horizons*. Copies were distributed to mathematics departments around the country; one more issue will be distributed free later this spring. After that mathematics departments will need to purchase subscriptions. The minimum will be 20 year-long subscriptions for \$100. The journal will be published four times a year; so, that is just \$1.25 an issue -- a real bargain. To keep costs low, it will not be possible to order less than 20 subscriptions. At the meeting we talked about ways to earn money for subscriptions, uses of the journals, distribution of the journal, content of the journal, and recommendations for changes and additions. If you have any suggestions, send them to Don Albers at MAA or send them to me and I will forward what I get from our section to Don. I'm not sure how often the mathematics community can produce a Wiles for a major article, but it certainly made a great cover for the inaugural issue.

At the meeting the Conference Board of the Mathematical Sciences (CBMS) was distributing packets of information that Andy Sterrett at MAA had collected about career information in the mathematical sciences. Documents which are included in the packet are *Career Information in the Mathematical Sciences: A Resource Guide* (CBMS), *Careers that Count: Opportunities in the Mathematical Sciences* (AWM), *Careers in the Mathematical Sciences* and *More Careers in the Mathematical Sciences* (MAA), *Mathematical Scientists at Work* (MAA), *Shape the Future: A career as a Mathematics Teacher* (NCTM), *Careers in Operations Research* (Operations Research Society of America), *Key Steps to Your Future: Careers in Management Science* (Institute of Management Sciences), and a poster on mathematics in the news. This is a wonderful set of resources. For information on the packet, contact Andy Sterrett at MAA.

The meeting was as usual lots of fun and lots of work. Between the MAA committee meetings and my work for NSF, it was certainly busy. It was

bitterly cold, but going to sessions and seeing lots of old friends and making new ones left me with a warm feeling and excitement over being involved in this wonderful time for undergraduate mathematics.

The MAA has recently received a grant for an exciting year-long program designed to inform and assist beginning mathematical sciences faculty in their professional roles. Sixty new PhDs about to start their first full-time teaching job or faculty just completing their first year of collegiate teaching will be selected as Project NEXT (New EXperience in Teaching) Fellows. Fellows will attend a two-and-a-half day summer workshop before the Minnesota MATHFEST, participate in MATHFEST, network during the academic year, participate in specially designed sessions at winter MAA meeting in San Francisco, and participate in a special workshop focusing on issues in the first year of teaching at the 1995 summer MAA meeting at the University of Vermont. If you or someone on your faculty is interested or if you need additional information, contact James Leitzel at the University of Nebraska (402-472-7232 or jimleitz@unlinfo.unl.edu) or Christine Stevens at St. Louis University (314-658-2444 or stevensc@sluvcu.slu.edu).

We hope that all of you will be attending the spring meeting on Saturday April 16 at St. Mary's College in St. Mary's, Maryland. As a special treat on Friday April 15 and Saturday April 16, Ben Fusaro has organized a special Student Conference on Environmental Mathematics. For a registration fee of only \$10, the conference includes a Friday evening dinner banquet with speaker Peter Olsen who was associated with the clean-up from the Exxon Valdez spill, a hands-on workshop with Robert McKelvey, Saturday breakfast and lunch, a chance for students to give presentations and win prizes, and a 50/50 split on a motel room. Encourage your students to attend; better yet take them. For more information, contact Ben Fusaro at Salisbury State University (410-543-6470). Thank you Ben for applying for a MAA grant to have a student conference in our section and for doing all the great work to put this together. Way to go, Ben!!!

Elizabeth Teles, Governor
Md-Va-DC Section of the MAA
703-306-1668 or eteles@nsf.gov

Nominations Sought

The Nominating Committee is seeking nominations for

- Chair-Elect
- Program Chair
- Secretary

of our Section. Elections will be held at the April meeting. If you are interested in serving, or know someone who would be a good Section officer, or if you would simply like information, call Beverly Phillips at Thomas Nelson Community College: (804)825-2907. Her office hours are 11-12 Monday-Thursday and 11-1 Friday -- or call and leave a message.

Student Conference

Please inform your students about the first-time-ever MAA Conference for Students being held at St. Mary's College during the weekend of April 16th at St. Mary's College. A description and registration form may be found elsewhere in this newsletter. Students who wish to present a paper about *environmental mathematics* should submit a title to Ben Fusaro at Salisbury State by **March 21**. Motel reservations should also be made (through St. Mary's College) by that date. Abstracts will be due on March 28. Faculty members who accompany students to the conference will have a difficult choice to make on Friday night: to attend the Student Banquet and hear Peter Olsen, or to attend the "grown-ups" banquet and hear Robert McKelvey. A pleasant dilemma!

Campus News

James Madison University has three new faculty members this year: *Peter Kohn* received his Ph.D. from the University of Texas at Austin; his research interests are in low dimensional topology and knot theory. *James Liu*, whose Ph.D. is from Southern Illinois University, is interested in integrodifferential equations with applications in viscoelasticity and heat conduction. And *Shan Sun* received her Ph.D. from Indiana University; her research interests lie in mathematical and nonparametrical statistics. *Terry A. LePera* was promoted to Associate Professor, effective Fall 1993. *Bob Hanson* was on leave at Virginia Tech during Spring semester 1993. A new, interdisciplinary Center for Mathematical Modelling has been initiated at JMU, under the sponsorship of the College of Letters and Sciences and the Department of Mathematics. The Center, directed by *James Sochacki* and *Richard Babarsky* of the Mathematics Department, is funded by a grant from the National Science Foundation and matching funds from the University.

Edward Scheinerman was promoted to Full Professor in the Mathematical Sciences Department at **The Johns Hopkins University**. Prof. Scheinerman recently became managing editor of the *Journal of Graph Theory*. *Leslie Hall* joined the Mathematical Sciences Department as an Assistant Professor; her research specialties are combinatorial optimization and scheduling theory. *Lenore Cowen* will join the Department in Fall 1994 as an Assistant Professor. She is a 1993 Ph.D. from the Massachusetts Institute of Technology, specializing in discrete mathematics, and was awarded an NSF Postdoctoral Fellowship.

The Association has been informed of the death of *Hubert M. Cole*, on October 7, 1993. Prof. Cole, who retired from **George Mason University** in 1973, served as the Coordinator of Mathematics in the days before George Mason was large enough to have a Mathematics Department. Prior to entering teaching, he had a long and distinguished Army career, in which he achieved the rank of Colonel.

And *Vojislav Stojkovic* is now a tenured associate professor of computer science at **Morgan State University**, effective Fall 1993.

Genevieve Knight: Distinguished Teacher

The 1993 MAA Award for Distinguished Teaching in our Section was awarded to Prof. Genevieve M. Knight of Coppin State College. This award was established to recognize mathematicians who are extraordinarily successful in their teaching, have had an influence in their teaching beyond their own institutions, and who foster curiosity and generate excitement about mathematics in their students.

Professor Knight received her bachelor's degree in mathematics education with highest honors from Fort Valley State College, her master's degree in mathematics from Atlanta University, and her Ph.D. in Mathematics Education from the University of Maryland at College Park. She joined the faculty at Coppin State College after fifteen years on the faculty at Hampton Institute, where she also chaired the Department of Mathematics and Computer Science. Widely recognized by her students as someone who demonstrates great concern for all her students, she stimulates their interests in genuine mathematical learning and has helped them develop confidence in their ability to achieve. Dr. Knight has also been very active in initiating in-service programs in mathematics education for pre-college teachers in the Baltimore metropolitan area.

Prof. Knight, who also earned the Maryland Mathematics Teacher of the Year Award from MCTM in 1993, says that she "loves to teach students mathematics." Her favorite courses are the courses for preservice and in-service teachers, and the calculus sequence. Her former students have established successful careers as college presidents, doctors, lawyers, school teachers, and government workers.

Prof. John Smith of George Mason University was our Section's Distinguished Teacher in the first year of this program. This year's winner will be announced at the Spring meeting at St. Mary's College.

Treasurer's Report February 15, 1994

Balance on hand -- April 17, 1993 \$7,154.77

Receipts

Spring 1993 meeting -- on-site registrations	\$792.50
Interest	89.92
Check -- never cleared	60.00
MAA student chapter grant	900.00
Fall 1993 meeting -- registrations	2,992.50
MAA book sales	45.89

Total receipts \$4,880.71

Expenditures

Spring 1993 meeting -- banquet and luncheon	\$1,659.50
Spring 1993 meeting -- speaker	388.66
Spring 1993 meeting -- return student	10.00
Putnam winner	100.00
MCM teams	400.00
Fall 1993 meeting -- banquet and luncheon	2,079.88
Fall 1993 meeting -- speaker	367.58
Fall 1993 newsletter	676.71
Supplies and postage	152.64

Total Expenditures 5,834.97

Balance on hand -- February 15, 1994 \$6,200.51

MINUTES OF THE FALL 1993 BUSINESS MEETING

The Fall 1993 Business Meeting was held at Montgomery College, Takoma Park on 13 November. The meeting was called to order at 11:30 by Ben Fusaro, Section Chair.

Helen Christensen, Immediate Past Chair, reported on the Spring 1993 Business Meeting. She noted that most of the business at that meeting consisted of amendments to the Section By-Laws. The revised version of the By-Laws has been distributed. Formal minutes of that meeting are not yet available but will be circulated before the Spring 1994 meeting.

Jon Scott, Section Treasurer, presented the Treasurer's Report. In summary:

Balance on Hand, 13 Nov 93\$ 6600.04

Balance on Hand, 17 Apr 93\$ 7159.77

Surplus (Deficit) for Period(\$559.73)

Elizabeth Teles, Governor, presented the Governor's Report. A report of the Vancouver summer meeting was in the Section Newsletter. The MAA national office is planning to have a server for electronic services. It will not be a part of AMS's E-math system. Those wishing to participate in the planning process should contact the national office. Much software is available free through Internet. The FTP program at Calvin College can be accessed. There will be an exhibit on this at the national meeting in Cincinnati in January 1994. Four draft reports are of interest: (1) a circulating draft of AMATYC standards for all college mathematics below calculus, (2) NCTM assessment standards for school mathematics, (3) MSEB's "Measuring What Counts," and (4) MAA's assessment of student learning for mathematics majors.

Milt Eisner, Section Secretary, discussed the Distinguished Teaching Award program. All departments were encouraged to submit nominations. They are due to the Section Secretary by 1 January 1994.

Helen Christensen belatedly presented the certificate of the Distinguished Teaching Award for 1993 to Genevieve Knight of Coppin State College.

Ben Fusaro announced that:

(1) A workshop in Geometer's Sketchpad will be held at Towson State University on 11 December 1993. The fee is \$10.

(2) The NCTM will hold a regional conference in Richmond on 24-26 February 1994.

(3) The Spring 1994 meeting of the Section will be held on 15-16 April at St. Mary's College of Maryland, in coordination with the First MAA Regional Student Conference, whose theme will be environmental mathematics. Students will pay \$10 to attend, for which they will receive registration, a Friday night banquet, breakfast and lunch on Saturday, admission to the conference, and a 50% discount on motel accommodations.

(4) The section's summer workshop is expected to be held at Frostburg State College in June 1994. The dates and speaker are not yet finalized.

Betty Mayfield, *Newsletter* Editor, announced that a faculty development institute will be held at Montgomery County Community College (PA) on 28-29 January 1994. Those interested should contact her for details.

Howard Penn moved that the Section Secretary be directed to write a letter of thanks to Montgomery College, Takoma Park. The motion was seconded and approved unanimously.

The meeting was adjourned at 11:53.

Respectfully submitted,
Milton P. Eisner, Section Secretary

HIGH SCHOOL CONTEST

Sally Garber of Hollins College reports the results of the 1993 American High School Mathematics Examination for students in Virginia high schools. This year 139 schools, and 9670 students, participated. Thomas Jefferson High School for Science and Technology in Alexandria was named to the School Honor Roll, and twenty-seven Virginia schools were named to the School Merit Roll. Ninety-four individual students were named to the Student Honor Roll and are thus eligible to take part in the American Invitational Mathematics Examination. (Seventeen of the top twenty individual scorers attend Thomas Jefferson High School; the *other* schools with Honor Roll students are Patrick Henry High School in Glade Spring, Midlothian High School, and Craig County High School.) Jeffrey Ford of Craig County High School was awarded a Gold Medal, for placing first in his school for the past four years. Kari Heffner of Bethel High in Hampton, Julie Kim of West Springfield High, and Nicholas Loehr of Midlothian High all won Silver Medals, for placing first in their respective schools for the past three years. Twenty-one students were awarded Bronze Medals. And the top five scores in Virginia were achieved by Andrew Dittmer, Adam Harter, Scott Powell, Tyler Beam, Jessen Yu (all of Thomas Jefferson High) and James Wicht of Patrick Henry High. Congratulations to all of these hard-working, talented young students!

Visiting Lecturer Program

Academic institutions are reminded of the MAA Visiting Lecturer Program, which identifies mathematicians who are willing to visit community colleges, colleges, and universities to present lectures and meet with students and faculty to discuss mathematics and the teaching of mathematics. A booklet describing the program, including a list of current Lecturers, is available from the national office. You are encouraged to use this valuable resource! And if you think you may be interested in participating as a Lecturer yourself, the Visiting Lecturers Committee would be happy to hear from you! They are interested in persons from all areas of mathematics -- mathematics educators, research mathematicians, mathematicians from industry and "everything in between." The Committee is especially interested in identifying minority Lecturers. For more information, contact James G. Ware, Chairperson, MAA Visiting Lecturers Committee, Department of Mathematics, University of Tennessee at Chattanooga, Chattanooga, TN 37403-2598, (615) 755-4545.

Summer Workshop

The Maryland-D.C.-Virginia Section of the MAA will sponsor a workshop at Frostburg State University, in the mountains of western Maryland (poetically referred to in this month's issue of *Focus* as "the Western Shore of Maryland"), on "Surfaces, Soap Bubbles, and General Relativity," from May 31 through June 3, 1994. The workshop will be led by Frank Morgan, Professor and Chair of the Department of Mathematics at Williams College and the author of three undergraduate texts: *Geometric Measure Theory -- A Beginner's Guide*, *Riemannian Geometry: A Beginner's Guide*, and *Calculus*. He is widely known as a clear, dynamic and persuasive speaker. Intended for college mathematics teachers (participants should be familiar with calculus and linear algebra), the workshop costs \$215 per person, including room and board (double occupancy). There is a deposit of \$100, refundable until May 2. For information, contact: Dr. John H. Biggs, Mathematics Department, Frostburg State University, Frostburg, MD 21532 (301) 689-5291, or Dr. B.A. Fusaro, Dept. of Mathematics and Computer Science, Salisbury State University, Salisbury, MD 21801, (410) 543-6470.

Another Summer Workshop

The Allegheny Mountain Section of the Association is sponsoring a Short Course at Allegheny College, June 13-17, 1994. Presented by William Dunham, the Truman Koehler Professor of Mathematics at Muhlenberg College, this five-day workshop examines a collection of significant theorems form a 250-year span in the history of mathematics. Original work of Newton, the Bernoullis, Euler, Weierstrass, Cantor, and others which have relevance for the undergraduate classroom will be examined. The course registration fee is \$120, and room and board another \$120, for a total of \$240. For further information and an application, contact: George Bradley, Dept. of Mathematics and Computer Science, Duquesne University, Pittsburgh, PA 15282, (412) 396-5115, BRADLEY@DUQ3.DUQ.EDU.



— *Mathematical Association of America* —

**Maryland / DC / Virginia Section
Spring Meeting, April 15-16, 1994**

**St. Mary's College
St. Mary's City, Maryland**

Friday, April 15

6:30 - 7:00 — Social Gathering
Daugherty-Palmer Commons

7:00 — Banquet
Daugherty-Palmer Commons

Invited Speaker:
Dr. Robert McKelvey
University of Montana

*Conceptual Issues in
Conservation of Biological Diversity*

Saturday, April 16

8:00 - 11:30 — Registration
Science Building

8:30 — Welcoming Remarks
Science Building

Dr. Edward Lewis, President, St. Mary's College

Saturday, April 16

8:50 - 9:20 — Contributed Paper Session I

All contributed papers are given in the Science Building

- 133 - George Mackiw, Loyola College of Maryland
Error-Correcting Codes for Alphanumeric Data

- 134 - John Milcetic, University of the District of Columbia

On $\int_0^{\infty} \left(\frac{\sin x}{x}\right)^n \frac{\sin mx}{x} dx$ and Related Integrals

- 139 - J. Bernard Nestor, Morgan State University
Generalized Pythagorean Triangles and Pythagorean Sequences

- 140 - Bruce Murrie, U. S. Department of Education
Discrete Time Survival Analysis and Student Loan Lifetimes

- 141 William P. Wardlaw, U. S. Naval Academy
Good Matrices (Integer Matrices which Preserve GCDs)

9:30 - 10:00 — Contributed Paper Session II

- 133 - Bonita V. Saunders, National Institute of Standards and Technology
The Development of Curvilinear Coordinate Systems for Scientific Applications

- 134 - James P. Coughlin, Towson State University
Optimization: The Hot and Cold Boltzman Machine

- 139 - Howard Lewis Penn, U. S. Naval Academy
A comparison of Results for a Multiple Choice Final Exam Between Students in Reformed Calculus and Regular Calculus

- 140 - Beverly Hargraves, St. Mary's College of Maryland
A Pascal-type Triangle and Sums of Powers

- 141 - Theresa A. Francis, Mount St. Mary's College
Presentations of the Special and General Linear Groups

10:10 - 11:20 — Invited Address (Room 134)

Dr. David W. Scott
Rice University

Visual Clustering Modes, and Nonparametric Density Estimation

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

- 133 - Andrew D. Oh, St. Mary's College of Maryland
Cuts in Hypercube Networks

- 139 - Bill Reddy, Loyola College of Maryland
How Much Harder Is It?

- 140 - Robb T. Koether, Hampden-Sydney College
The Use of Mathematica Projects in Abstract Algebra

10:50 - 11:20 — Contributed Paper Session

IV

133 - Ronald L. Persky, Christopher Newport University

The AAA Similarity Theorem: An Easy Proof

139 - Vojislav Stojkovic and Samir Tannouri, Morgan State University

Definite Clause Grammar (DCG) Translator

140 - Eun Ho Moon Lee, Morgan State University

Semisimplicity of Projective Semigroup

11:30 - 12:15 — MAA Business Meeting

Montgomery Fine Arts Center

12:25 - 2:30 — Luncheon

Montgomery Fine Arts Center

Invited Speaker:

Dr. V. Frederick Rickey

Bowling Green State University / MAA
Some History of Fermat's Last Theorem

2:40 - 4:00 — Workshop

Room 165, Science Building

Getting Started with SPSS

Ahlam El-Hage Tannouri, Morgan State University

2:40 - 3:10 — Contributed Paper Session V

133 - John P. Nolan, American University
Random Fractals II

134 - Dipa Choudhury, Loyola College of Maryland

A Note on Symmetric and Normal Matrices

139 - Xiao-Xiong Gan, Morgan State University

Recapturing Some Approximate Antigradient

140 - Tafyu Kim, Morgan State University
The Ancient Mathematics of China

141 - Mathematical Modeling Contest,
Problem A

3:20 - 3:50 — Contributed Paper Session VI

133 - Christopher Kohl, James Madison University
A Test for Affineness

134 - Henry Berger, U. S. Army Topographic Engineering Center
The Nonconvergence of the Homogeneous Multilayer Approximation in Remote Sensing

139 - Kim O'Kane and Laura Lentz, Hood College
I Survived Student Teaching

140 - Hanna Sandler, American University
Distance Formulas in Complex Hyperbolic Space

141 - Mathematical Modeling Contest,
Problem B

Invited Speakers

Dr. Robert McKelvey currently is a free-lance mathematical consultant, specializing in mathematical modeling of management and policy issues in the fields of ecological economics and conservation biology. His technical mathematical interests range over risk management and decision theory, optimization and games, differential equations, and stochastic processes. He is founding editor of the interdisciplinary journal *Natural Resource Modeling*, and immediate past president of the Resource Modeling Association.

Now retired as Professor of Mathematical Sciences at the University of Montana, and before that at the University of Colorado, he recently served as Distinguished Visiting Scientist at the EPA Environmental Research Laboratories in Corvallis, Oregon, concentrating on issues linking biodiversity conservation to global climate change. During autumn 1993, he was Visiting Professor at the University of Utah. He has lectured widely on modeling and conservation issues.

Dr. V. Frederick Rickey is Distinguished Teaching Professor at Bowling Green State University in Ohio and recipient of one of the first MAA national awards for Distinguished College or University Teaching of Mathematics. A decade after receiving his Ph. D. in mathematical logic from the University of Notre Dame, his interests changed to the history of mathematics.

This year he is on sabbatical and is spending some of his time at the MAA Headquarters where he is involved with Math Horizons and building a gopher. The remainder of his time is spent in the libraries of the area. A chance encounter with the 1670 edition of Diophantus edited by Fermat's son Samuel led to the topic for his talk to our sectional meeting.

Workshop Description

SPSS (Statistical Package for the Social Sciences) is a statistical package available on a variety of platforms, from personal computers to supercomputers. The package provides a wide variety of statistical analysis tools, many of which usefully support classroom work. However because of its power, SPSS can be daunting to the new user.

This workshop will focus on problems of first-time users, walk participants through the initial phase, and try to help them get over the "first six hours of exposure" hump. There is no charge, but since this will be held in the computer lab, participation is limited to the first 30 attendees.

Lodging

These were listed in the Preliminary Newsletter; special rates are guaranteed until March 15th.

Patuxent Inn, Lexington Park, MD (8 miles north of College)
(301) 862-4100
Restaurant, jogging trail, tennis courts
Group rate: \$43 + tax for any room
Refer to #G1597 to get special rate

Holiday Inn, Solomons, MD (15 miles north of College)
(410) 326-6311
Restaurant, lounge, marina, swimming pool, health club
Group rate: \$64 single, \$70 double
Refer to SMC to get special rate

SPRING MEETING REGISTRATION FORM

Please complete and mail to **Jon Scott, Department of Mathematics, Montgomery College, Takoma Park, MD 20912** by April 1st.

Name(s) _____

(indicate if guest) _____


Address _____

Affiliation (for nametag) _____

Telephone _____

☐ First-time attendee

e-mail address _____

 **Students:** Do not fill out this form! Use the separate registration form for the Student Conference. You are welcome to attend MAA paper sessions.

_____ Meeting registrations @ \$5.00

_____ Tickets for Friday night banquet (If you are accompanying students to the Student Banquet, do not order tickets to the MAA Banquet.)

_____ Chicken Marsala @ \$14.25

_____ Orange Roughy @ \$15.00

_____ Vegetarian @ \$12.00

All entrées include tossed salad, vegetables, rolls, beverage, and dessert with coffee or tea.

_____ Tickets to the Saturday lunch @ \$6.50
Ham, roast beef, assorted breads, beverages, coffee

TOTAL

Please make checks payable to MAA.

Mathematical Association of America



MD-DC-VA Section

Student Conference

Environmental Mathematics

Friday-Saturday, 15-16 April 1994

St Mary's College of MD, St Mary's City

Friday - Banquet Dinner with Peter Olsen USCG, *Exxon Valdez Oil Spill*

Saturday - Workshop with Robert McKelvey, *Endangered Species Conservation*
and Student presentations (*Cash* prizes will be awarded)

Here is a chance for your students to -

- * Enjoy a dinner banquet with other students and then sit back and listen to a mathematical scientist who was directly involved in the Alaska clean-up.
- * Join a workshop with the "Godfather" of Environmental Mathematics.
- * Make a presentation or enjoy the presentations of other students.

*Historic St. Mary's College marks the site of
Maryland's first Colonial settlement*

The nominal \$10 registration fee includes -

- * Friday banquet
- * A subsidized (50%) motel room
- * Saturday breakfast and lunch

**** Chapter Advisors who accompany their students come to the banquet FREE ****

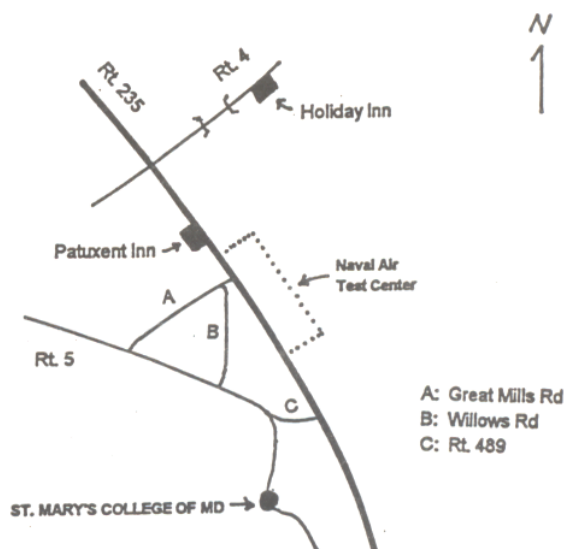
For more information -

BAFusaro@SAE.Towson.EDU (410) 543-6470

Dept. of Math Sciences, SSU, Salisbury, MD 21801

Directions to St. Mary's

From Washington, D.C: From Beltway (I-95), take Exit 7A (Route 5 to Waldorf). In Waldorf, turn left at the major intersection, continue on Route 5 south to St. Mary's County. About 20 miles south of Waldorf, Route 5 branches to the right toward Leonardtown, and the main four-lane road continues straight and becomes Route 235. Continue on Route 235 to Lexington Park. Proceed south to the stoplight at the main entrance to the Naval Air Test Center. Turn right onto Great Mills Road, and turn left at the first stoplight (the road becomes Willows Road). Proceed 3 miles to Route 5; turn left (south) on Route 5 and continue 4 miles to St. Mary's College.



Mathematics Awareness Week
*Bringing the Power and Utility of Mathematics
to a Wider Audience*

The Joint Policy Board for Mathematics invites you to celebrate the richness and excitement of mathematics during Mathematics Awareness Week, April 24-30, 1994. The theme for this year's week, which coincides with National Science and Technology Week, is **Mathematics and Medicine**. A mailing to institutions in March will include six articles on the subject: *A Mathematical Compass for the Mind*, *Mathematics of Medical Imaging*, *Mathematics of the Human Immune System*, *Mathematical Algorithms are the Key to Molecular Modeling*, *Using Mathematics to Analyze DNA*, and *Mathematics: A Key to Genetic Studies*. Please read and distribute these articles to your colleagues and friends, and especially to local daily and weekly newspapers. You are urged to begin planning now for a successful and memorable Mathematics Awareness Week 1994.

**1994 Mathematical Sciences
Department Chairs Colloquium**
Arlington, VA.
October 28-29, 1994

PROGRAM: The theme of the 1994 Colloquium is "Shaping a New Contract with the University and with Society." The keynote address will be given by Neal F. Lane, Director of the National Science Foundation. The Colloquium will include three workshop sessions on Friday morning, including the popular workshop for new and future chairs. On Friday afternoon and all day Saturday, there will be sessions on enhanced productivity in mid-career, the JPBM Project on Professional Recognition and Rewards, federal research and education programs, the current employment situation, and many more topics in research and education management of bottom-line interest to department chairs. For the fifth year in a row, the registration fee has been kept at \$160. Brochures with a preliminary program will be sent to department chairs in spring 1994. Registration forms and updated information on the colloquium will be available on request by email, fax, and hard copy mail.

INFORMATION: Board on Mathematical Sciences, National Research Council, NAS 315, 2101 Constitution Avenue, N.W., Washington, DC 20418-0001
Tel: 202-334-2421
FAX: 202-334-1597
INTERNET: bms@nas.edu
BITNET: bms@nas.bitnet

**Science and Technology
Symposium**

The Board of Mathematical Sciences has announced its 1994 Science and Technology Symposium on "Motion, Control, and Geometry," to be held in Washington, D.C. on April 12. This symposium will focus on control theory as a fundamental aspect of motion generation in many emerging areas, including microsurgery, spacecraft positioning, biological and robotic movement, motor miniaturization, and motion engineering. This symposium addresses the exciting interdisciplinary synergy that is developing on the basis of theoretical insight and technological inventiveness. Shmuel Winograd of IBM will offer opening remarks; Avner Friedman of the Institute for Mathematics and its Applications will moderate. Speakers are Jerrold E. Marsden of Berkeley, Roger Brockett of Harvard, Richard Murray of Cal Tech, and P.S. Krishnaprasad of the University of Maryland. The symposium will take place from 2 - 5:15 p.m. in the Lecture Room of the National Academy of Sciences, 2101 Constitution Avenue, NW, Washington. There is no registration fee, but people wishing to attend are requested to register in advance because of limited seating.

Board on Mathematical Sciences, National Research Council, NAS 315, 2101 Constitution Ave., NW, Washington, D.C. 20418-0001.

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Internet: bms@nas.edu.

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