

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

Newsletter, Spring 2000

Vol. 21, No. 2 Final

March 2000

Spring Meeting Bowie State University April 28 - 29

Bowie State University is the oldest Historically Black University in Maryland, and is located on a picturesque 187-acre tract in Prince George's county, between Baltimore, MD and Washington, DC. Founded in 1865 by the Baltimore Association for the Moral and Educational Improvement of Colored People, it opened in Baltimore on January 9, 1865 in the African Baptist Church. It went through several transformations and emerged in 1908, in its present location, as Normal School No. 3, a state supported institution for the training of Negro teachers. As a result of changes in its programs, it became, successively, the Maryland State Teachers College at Bowie in 1935, Bowie State College in 1963, and, finally, Bowie State University in 1988. Also, in 1988, Bowie State University joined with ten other state institutions of higher learning to become the University System of Maryland.

Bowie State University now offers degrees in a variety of areas. In Mathematics, undergraduate degrees in Pure Mathematics, Applied and Computational Mathematics, and Secondary Mathematics Education are offered. Also, the mathematics department administers most of the dual degree engineering programs available at the University. There are several masters programs, of which the Computer Science program is particularly successful, ranking fifth nationwide in the number of M.S. degrees

(See page 2)

Meeting Highlights!!

Our Fall meeting in Bowie will have a full program featuring:

- Dr. John W. Alexander, Jr., President of the National Association of Mathematicians, as our featured Friday night speaker
- Dr. Paul Zorn of St. Olaf College as our featured Saturday morning speaker
- Dr. Dr. Melvin R. Currie of the National Security Agency as our featured Saturday afternoon speaker
- Dr. Victor Katz, University of D.C., and Dr. Rebecca Berg, Bowie State, as the Saturday workshop hosts
- Contributed paper sessions
- The MAA business meeting
- And more!

Details inside.

Complete information about the meeting, including registration forms, can be found on the web at:

http://www.cas.american.edu/~maa/spr00

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awarded to African-Americans. Recent additions to the graduate program include a Master's program in Applied and Computational Mathematics and a newly proposed doctoral program in Educational leadership. The University also sponsors graduate programs abroad.

Bowie State University is one of six institutions nationwide to have received a National Science Foundation grant under the Model Institutions for Excellence program. The National Aeronautics and Space Administration is a joint sponsor with the NSF. This grant has enabled Bowie State to strengthen its academic programs, improve its infrastructure, and offer more student support.

BRING A STUDENT!!

Inviting a student to join you in attending a section meeting is a great way to inspire the student's interest in the broader professional world of mathematics. The Spring program will include student talks and awards. Students are offered special discounts on registration and lunch and any student who presents a contributed paper earns a free membership or journal subscription from the MAA (see the web page for details).

So reach out and touch that special student - with an invitation to the section meeting.

Governor's Report

Well over 4000 mathematicians enjoyed Washington's hospitality (and a bit of its winter weather) at this year's Joint Mathematics Meetings. I hope you were able to attend. The Board of Governors meeting was, as always, packed with information and action items.

Executive Director, Tina Straley, identified three critical areas which deserve attention over the next few years. One is restructuring the membership dues. Along these lines, the Board heard a proposal from the Membership Committee to decouple basic dues from journal subscriptions. The proposal was tabled for further study of its financial and membership implications. The two other critical areas are a greater effort in MAA development (fund raising) activities, and the expansion of member services and programs for a wider audience.

The MAA is once again on sound financial footing with a small surplus expected for 1999. And while there are still serious concerns, total membership is holding around 27,000 (but, note that this is down from the 30,000 of just a few years ago.)

This summer's Mathfest will be held at UCLA from August 3-5. The 2001 Mathfest will be at the University of Wisconsin in Madison. Upcoming January meetings are: 2001- New Orleans, 2002-San Diego, 2003-Baltimore, 2004-Charlotte, 2005-Honolulu, and 2006-San Antonio. (Baltimore, Charlotte, and Honolulu are tentative pending successful hotel negotiations.)

This year's theme for Math Awareness Month (its April) is "Math Spans All Dimensions." Log into the Math Awareness Month web site at http://mam2000.mathforum.com/ (or from MAA Online) for an extremely rich tour.

The first special interest group of the MAA (SIGMAA) was officially approved at this meeting. The Association for Research in Undergraduate Mathematics Education (ARUME) encourages quality research in undergraduate mathematics education and its application in teaching. Watch for more SIGMAAs in the future.

See you at Bowie State on April 28 - 29 th,

Jon Scott

♣ <u>Section Meetings - Mark your calender!</u> ♣

Fall 2000: American University, November 10 – 11, 2000

Spring 2001: Virginia Military Institute, April 20 – 21, 2001

Treasurer's Report

February 28, 2000

General Account Balance, September 10, 1999

\$ 8047.50

Receipts Interest

\$ 69.84

\$ 2246.00

Expenses

\$ 149.58

Speaker Expenses Meal functions, Fall 1999 \$ 145.00 \$ 1447.00

Meeting registrations Total Receipts

\$ 2315.84

Total Expenses

\$ 1592.00

General Account Balance, February 28, 2000

\$8771.34

John G. Milcetich Memorial Student Achievement Fund Balance-September 10, 1999

\$ 1585.28

(Includes \$507.17 transferred from Student Conference Fund)

Contributions

\$ 132.00 \$ 17.58

Interest Total Receipts

\$ 1734.86

Balance - February 28, 2000

Bonita V. Saunders, Treasurer

MAA Certificate of Meritorious Service Elizabeth J. Teles

Awarded at January 2000 Joint Mathematics Meetings at Washington D.C.

Citation:

The Maryland-District of Columbia-Virginia Section is proud to honor Elizabeth J. Teles with its Certificate of Meritorious Service. She has many years of outstanding service to both the Section and national MAA. As Program Chair she arranged lively meetings of interest to a wide audience of members. As Section Chair and, later, Governor, she led the Section with great enthusiasm. Currently, she is Section Secretary, thereby continuing her long tradition of service. Dr. Teles has been equally involved at the national level. She was member and chair of the Committee on Two-Year Colleges and the Committee on Sessions of Contributed Papers. She was for many years the Software Reviews Editor for the College Mathematics Journal. Other committee memberships include the Committee on Faculty Development, the Committee on Computers in Mathematics Education, and the Advisory Board for the Interactive Mathematics Text Project. She has organized many contributed paper sessions and panel discussions at national meetings. An award-winning teacher at Montgomery College for more than 20 years, Dr. Teles continues her leadership in collegiate mathematics education as Program Director in the Division of Undergraduate Education at the National Science Foundation.

Response from Elizabeth Teles

Thank you to my friends and colleagues in the Maryland-DC-Virginia Section of the MAA for this special honor. The Section and the national MAA organization have served a very important role in my career as a mathematician, but as importantly I have formed personal friendships over the years with MAA members. I am very appreciative to the Section for this recognition and look forward to many more years of professional growth and friend ship.

Section Officers to be Elected at Spring Meeting

At our Spring 2000 meeting we will elect a new

- Secretary (to succeed Elizabeth Teles, whose term is expiring)
- Chair (to serve one year as Chair Elect and then two years as Chair)

If you are interested in running for one of those offices or would like to find out more about them, or if you would like to nominate someone, please contact one of the Section officers. We would love to see some new faces among our ranks!

MINUTES OF THE FALL MEETING (1999)

Loyola College, Saturday, November 14, 1999

The meeting was called to order by Chair Carol Crawford.

Local Arrangements and Other Thank-Yous: Crawford thanked local arrangements coordinator Lester Coyle and Mathematics Department Chair John Hennessey and their colleagues at Loyola for arranging the meeting. In addition, she gave her thanks to program chair Dan Kalman for the program, former Chair Betty Mayfield for her mentoring, and all other section officers.

Minutes and Treasurer's Report: The minutes of the spring 1999 meeting were approved. This was followed by the Treasurer's report from Bonita Saunders. Saunders reported that there were 98 paid registrants at this meeting.

Project NEXT Fellows: The section has 4 Project NEXT Fellows this year. John Allen Kuchenbrod of Emory and Henry College and William Traves of the US Naval Academy were in attendance and were introduced.

John Smith Award for Distinguished College or University Teaching: The Chair of the Committee Lee May of Salisbury State University asked for formal nominations for distinguished teaching. The form is posted on the Web site and due date is January 7, 2000. A preliminary form does not have to be submitted to submit a full form.

Future Meetings: The dates of future meetings were given. The Section meetings are: (a) Spring of 2000 to be held April 28 and 29 at Bowie State University in Bowie, Maryland and (b) Fall 2000 to be held at American University in Washington, DC at a date to be determined. The national meeting in winter of 2000 is in Washington, DC January 19-22. A site for the spring 2001 meeting is being explored.

Elections: Elections in the spring 2000 will be for Chair-Elect and Secretary. Crawford asked the members to volunteer or nominate someone else.

Book Sales: At this meeting 44 MAA books with total value of \$948.10 were sold. There are at least three benefits of purchasing MAA books at the meeting: (a) the prices of the books at the meeting are at least 10% below the regular member price, (b) people can take the books and avoid the shipping fees, and (c) the section gets 12% of the total sales of books sold at the meetings. In addition, books are available for people to see before they are purchased.

Announcements: Crawford asked all department liaisons to update their email addresses.

Respectively submitted:

Elizabeth J. Teles Secretary for the Section

MAA Booksale

Be sure to visit the MAA Booksale at the Spring Section Meeting and check out the latest and greatest titles from the MAA. The Random Walks of George Polya, The Beginnings and Evolution of Algebra, The Math Chat Book, Mathematical Fallacies, Flaws, and Flimflam, Inverse Problems, Euler: The Master of Us Allthese are just some of the titles that will be available for purchase at the Spring Section Meeting. Why buy your MAA books at the Section Booksale? You get to take advantage of special meeting prices, discounted from the already low member prices. You dont have to hassle with extra shipping costs. And the Section receives a proportion of the proceeds, which it uses to support student activities. This is a great way to contribute to our Student Achievement Fund. So, make your list, bring your credit card, checkbook or cash, and go home with some terrific MAA publications.

!!! Newsletter News !!!

The Section is discussing plans to change the way Section news is distributed to the members. The section currently sends a preliminary newsletter to department liaisons early in the semester and a final longer newsletter to all members several weeks before the semester meeting. We are considering sending the Preliminary newsletter to all members and doing away with the final newsletter in favor of posting all Section news on the Section web site.

The section welcomes input from the membership on this issue. Please bring your ideas to the Business Meeting, send them via email or regular mail to section chair, Carol Crawford, or newsletter editor, Eve Torrence. Contact information for all officers is provided on the back cover of the newsletter.

Spring Meeting: Bowie State University MEETING HIGHLIGHTS

The spring meeting of the MD/DC/VA Section of the MAA will be held April 28 and 29 at Bowie State University, Bowie, MD. The program will begin with a reception and banquet Friday evening, featuring an address by John W. Alexander Jr., President of the National Association of Mathematicians (NAM) and Professor at Spelman College. Dr. Alexander's address, The History of Mathematics in Color, concerns contributors to mathematics who have too often been forgotten in history books and classrooms. The presentation will touch on both African contributions to the mathematics of ancient Greece, as well as contemporary accomplishments of African American mathematicians.

Saturday there will be addresses by Paul Zorn, Editor of Mathematics Magazine and Professor at St. Olaf College, and Melvin Currie, National Security Agency, as well as a workshop by Victor Katz, University of DC, and Rebecca Berg, Bowie State, contributed papers, and exhibits. Dr. Currie's lecture is connected with the Euler-Mascheroni constant g. This famous constant is usually defined in terms of the harmonic series. It is well known that the n^{th} partial sum can be under-estimated by integrating 1/x between 1 and n+1; g gives the limiting value of the error. However, there is another interpretation of g which concerns the distribution of the fractional parts of fractions n/k. Dr. Currie's talk examines aspects of the distribution of the fractional parts, leading to results that are intriguing and counter-intuitive.

Dr. Zorn's presentation is *Math Mag Morsels*. As the title suggests, this talk will put on display interesting tidbits from the 70 year history of Mathematics Magazine, from great articles, to famous authors; from letters to the editor, to interesting or unusual illustrations: A veritable smorgasbord of mathematical miscellany.

Victor Katz and Rebecca Berg will present a workshop Saturday afternoon on using the history of mathematics to enrich your courses. Katz is well known as the author of a popular book on the history of mathematics. He is a co-director of the MAA's History of Mathematics Institute, in which program Rebecca Berg has been an active participant. Together, they will provide participants with a wealth of resources for incorporating history into math classes.

All meeting locations are wheel chair accessible. Anyone who may require special services should contact Michael Hughes at 301-464-6039 at least 48 hours prior to the event.

Meeting Program

Friday, April 28, 2000

6:00-7:00 PM Reception

Wiseman Center 107 followed by:

7:00-9:00 PM Dinner and invited lecture

Rathskeller, Wiseman Center

Invited Lecture:
The History of Mathematics in Color

TVICOINCE III

John W. Alexander Jr., Spelman College

by

Saturday, April 29, 2000

Note: WMC = Wiseman Center, SC = Crawford Science Building, LIB is the library.

8:30-10:00AM Registration and Refreshments - SC Lobby

8:30AM-2:00PM Book Displays and Sale - SC 108

Contributed Papers

An asterisk (*) following the title indicates that the talk is recommended for students; an asterisk following a speaker's name indicates that the speaker is a student.

8:45-9:15 AM	Session I
LIB 083:	"New Results on Univalent Functions and Their Applications to Complementarity Theory*", Roman Sznajder, Bowie State University.
LIB 085:	"If Pascal Had a Computer – a Do-It-Yourself Guide to the Problem of the Points*", Thaddeus Selden*, Randolph-Macon College.
LIB 090A:	"TBD", TBD.
LIB 090B:	"TBD" TBD.
SC 101:	"The Hill Estimator and Heavy Tailed Models*", Bashir M. Dweik*, American University.
SC 102:	"An Elementary School Approach to the 16 Puzzle*", William Wardlaw, US Naval Academy.
SC 103:	"Shrewd Shannon-Type Sampling Via Number Theoretic Trickery.*", Terrence Moore*, American University.

9:25-9:55 AM Session II

LIB 083: "An Automorphism Theorem for Bipermutational Tournament Square-root Graphs*", Raymond R. Fletcher III, Virginia State University.

LIB 085: "Interfering with Interference*",

Thaddeus Selden* and Neil Bridge*, Randolph-Macon College.

LIB 090A: "Continuous motion of Displaced Coordinate Frames*",

Keith McCarron* and Becci Torrey*, American University.

"A User Model for Internet Based Intelligent Tutoring System*", Jan Smid, Morgan State University. "A Random Regression Model Explored*", SC 101: Michela Barba*, American University. "Magic Squares, Finite Geometries and Points of Inflection on Elliptic Curves*", SC 102: Ezra Brown, Virginia Tech. "Principle Learning and Theorem Building Process of Integrating Polynomials in Csc x and Cot x*"; SC 103: Atma Sahu, Coppin State College. Session III 10:05-10:35 AM "An Exploration of a Type-B Tamari Poset*", LIB 083: Nirit Sandman*, George Washington University. "Mathematics of C-spaces*", LIB 085: Ilhan M. Izmirli, Strayer University. "Fair Cake Cutting After Su*", LIB 090A: William Traves, US Naval Academy. "Mathematics on the Web*" LIB 090B: Conrad Lotze* American University. "Using the Washington Post to Teach an Introductory Statistics Course", SC101: Stephanie Cawthorne, Marymount University. "How Likely is a Fifth Degree Polynomial to be Symmetric about a Point?", SC 102: Bradford Abbott* and Parviz Khalili, Christopher Newport University. "Is There a "Right" Way to Teach Girls Math? Feminist Pedagogy and Curricular Reform*", SC 103: Betty Mayfield, Hood College. Invited Lecture 10:45-11:45 AM LIB Auditorium Mathematics Magazine Morsels Dr. Paul Zorn, St. Olaf College Lunch 11:45-1:00 PM Wiseman 102 **Business Meeting** 1:00-1:30 PM LIB Auditorium 1:30-2:30 PM LIB Auditorium Invited Lecture The Fractional Parts of n/k Dr. Melvin R. Currie, National Security Agency Workshop 2:40-4:15 PM LIB Auditorium History of Mathematics in Mathematics Courses Victor Katz, University of DC and Rebecca Berg, Bowie State University Project NExT Meeting 2:40-3:40 PM LIB 083

Directions To Bowie State University and Parking Information

Bowie State University is located between the major metropolitan hubs of Washington, D.C. and Baltimore, Maryland. Visitors may take public transportation directly to campus from either city by MARC - Maryland Rail Commuter. Those driving from Baltimore should take the Baltimore-Washington Parkway south and exit to the east on the Laurel-Bowie Road, Maryland Route 197. From Washington, you may wish to travel on Route 50 east and exit to the north on Route 197. From either direction, you will follow Route 197 for six miles to the signs marking Bowie State University and Jericho Park Road. Turn on Jericho Park Road. Do not take the main entrance to campus. Turn right, then left, and left again. Parking will be on the left. The back of the Science building (registration) is visible from the lot.

More maps and directions are available on the Section web site at

http://www.cas.american.edu/~maa/spr00

Lodging for Spring Meeting

- 1. The Comfort Inn, Rt. 301, near Rt. 50 and Rt 197. A "special" conference rate of \$80.10, probably for a double. Mention the MAA. Comes with a deluxe continental breakfast. They are remodeling, so not many amenities are available. 301-464-0089
- 2. RIPS Country Inn, Rt. 301, near Rt. 50 and Rt 197. Regular rates of \$52 for single, \$54 for double, \$60 for King, \$62 for queen double. 301-805-5900
- 3. Hampton Inn, Rt. 197, near Rt. 50. Usual rates are \$90 for King, \$95 for standard double. Special \$79 conference rate for April 28, mention Bowie State when registering. 301-809-1800
- 4. Holiday Inn Greenbelt, 7200 Hanover Drive, Greenbelt. Conference rates of \$79 for either king or double. Mention MAA. Must reserve by 4/14/00. Dining room, swimming pool, wheel chair accessible. 301-982-7000 or 1-800-280-4188

DIRECTIONS:

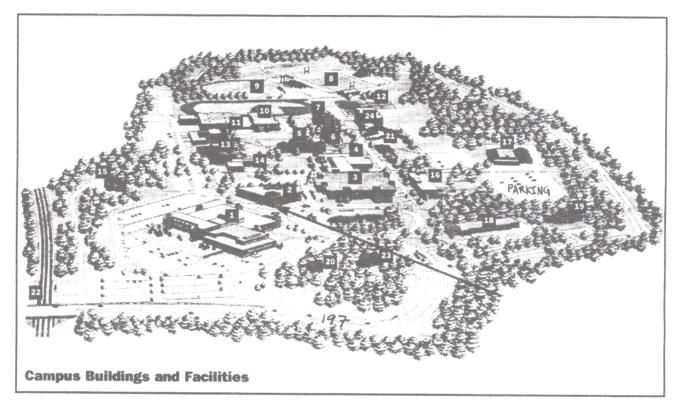
All hotels are 6-7 miles from campus.

From either the Comfort Inn or Rips Country Inn, go south to Rt. 197 N. Stay on Rt. 197 until you see a sign for the Bowie State University campus (to the right).

From the Hampton Inn, go north on 197 until you see the Bowie State Univerity sign. Turn right.

From the Holiday Inn: Hanover Rd, right onto 193 S, left onto 564. Stay on 564 over railraod overpass and turn left at the stop sign where it says "left turn permitted without stopping". Left at the light onto Rt 197. The next right takes you to the main entrance of campus.

- 3. Thurgood G. Marshall Library
- 4. University Wiseman Centre (Banquet and Lunch)
- 16. George Crawford Science Building (Registration)





MD-DC-VA MAA Section

Spring 2000 Meeting Registration Form

Print it, fill it out, and mail it with payment to Bonita V. Saunders, National Institute of Standards and Tech., 100 Bureau Drive, Stop 8910, Gaithersburg, MD 20899-8910 to arrive by April 17, 2000. (Use mailing label below)

Please submit a separate form for each attendee. Make checks payable to MAA.

Name								
Affiliation								
Address								
Phone			e-mail address					
Are you an MAA member?			Is this your 1st MAA section meeting?					
Registration: (check type, enter fee at far right)	Regular (\$10) []		Student (\$5) [] Gu		iest (free)	Fee		
chief fee at fai fight)			(See §			e guest policy below)		
Saturday Workshop (optional): to reserve a place, enter \$10 at right						Fee		
Contribution to John G. Milcetich Memorial Student Achievement Award Fund (optional)						Amount		
		Vegetarian (Portobello Mushroom)		Blackened Salmon		Pork Tenderloin	Fee	
Includes choice of salad and desert. C desired entree, enter \$27 at far right	neck (Ponobello			L—J		[]		
Saturday box lunch (optional): To order lunch, enter \$8 (or "Free" for students) at right.						Fee		
Total payment enclosed (enter at far right)								

All meeting locations are wheel chair accessible. Anyone who may require special services should contact Michael Hughes at 301-464-6039 at least 48 hours prior to the event.

Bonita V. Saunders National Institute of Standards and Tech. 100 Bureau Drive, Stop 8910 Gaithersburg, MD 20899-8910

MAILING LABEL

Attn: MAA Meeting Registration

GUEST POLICY

Registrants for the meeting sometimes bring along a GUEST (typically a spouse, parent, son or daughter, etc.) who attends the meeting STRICTLY FOR SOCIAL REASONS, and not out of an interest in the program. For a guest to attend a meal event, there must be a preregistration form submitted. Guests are not charged a registration fee for the meeting, only the cost of the meal(s) attended.

Maryland/DC/Virginia Section of the MAA Fall 2000 Meeting: November 10 - 11 American University

Early Call for Papers

Presenter:		
Institution/Org	ganization:	
Address:		
Phone number:	: day	evening
E-mail:		
Title of paper:		
Content area: _		
Is this talk rec	commended for students:Yes	
Equipment need	ded:	
Status:	☐ Faculty ☐ Professional ☐ Student: ☐ Undergraduate ☐ Graduate	
Please attach a	two- or three-sentence description of your proposed talk.	
	Deadline: September 15, 2000	
Cand to Danser	Chair	

Send to Program Chair:

Robert Grafton National Science Foundation 4201 Wilson Blvd. Arlington, VA 22230 rgrafton@nsf.gov Phone: (703) 306-1910 FAX: (703) 306-1947

Maryland-D.C.-Virginia Section of the Mathematics Association of America

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