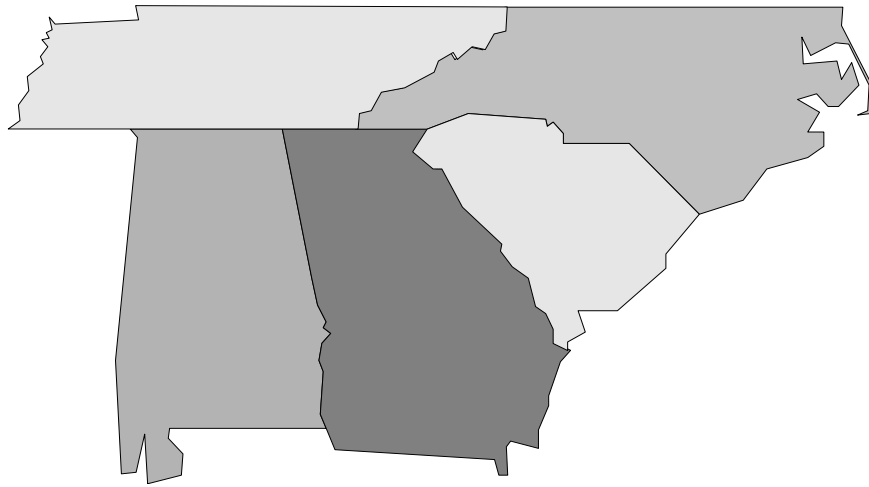


Southeastern Section Newsletter



Fall 2007

Volume 26 Number 2

Southeastern Section Officers 2006-2007

| | |
|--|---|
| Chair: | Martha Abell (Georgia Southern University) martha@georgiasouthern.edu |
| Secretary-Treasurer: | John Harris (Furman University) john.harris@furman.edu |
| Section Governor: | Ellen Kirkman (Wake Forest University) kirkman@wfu.edu |
| Section Lecturer: | Angela Shiflet, (Wofford College) shifletab@wofford.edu |
| Newsletter Editor: | Karen O'Hara (High Point University) kohara@highpoint.edu |
| Program Chair: | Jim Vandergriff (Austin Peay State University) vandergriffj@apsu.edu |
| State Director Alabama: | Emily Hynds (Samford University) eahynds@samford.edu |
| State Director Georgia: | Lila Roberts (GA College & State University) Lila.roberts@gcsu.edu |
| State Director North Carolina: | Greg Rhoads (Appalachian State University) rheadsgs@appstate.edu |
| State Director South Carolina: | Tom Fitzkee (Francis Marion University) TFitzkee@FMarion.edu |
| State Director Tennessee: | Jeff Knisley (East Tennessee State University) knisleyj@etsu.edu |
| Webmaster: | Jeff Clark (Elon University) clarkj@elon.edu |
| Historian: | Joe Albree (Auburn at Montgomery) aalbree@mail.aum.edu |
| Director of Project NeXt-SE: | Martha Allen (Georgia College and State Univ) Martha.allen@gcsu.edu |
| Student Activities Coordinator: | Laurie Heyer (Davidson College) lahey@ davidson.edu |

Table of Contents

| | |
|---|----|
| Section Calendar | 4 |
| From the Chair | 5 |
| From the Governor..... | 8 |
| Announcements..... | 10 |
| Call for Nominations..... | 11 |
| Spring Executive Committee Meeting..... | 12 |
| News From the Campuses | 17 |
| Section Meeting | 35 |

The Newsletter is published in April and November each year. The deadlines for items to be included in each issue are March 15 and October 15 respectively. Departmental News appears in the November newsletter only and is solicited from department liaisons. Full page ads are available for graduate programs and for corporate ads. Quarter page ads are available for position advertisements. Contact the advertising manager for details.

Material may be submitted to the editor on paper, by email, or on cd; electronic forms are preferred. Currently the newsletter is produced using Microsoft Publisher, which can import plain text files or files produced by most word-processing software.

Editor: Karen O'Hara, Department of Mathematics and Computer Science, High Point University, University Station, Montlieu Ave, High Point, NC 27262-3598; phone (336) 888-6385; kohara@highpoint.edu

Advertising Manager: to be announced.

Section Calendar

| | |
|--------------------------|--|
| March 28-29, 2008 | Southeastern Section MAA, Charleston, SC |
| April 9-12, 2008 | NCTM Annual Meeting, Salt Lake City, UT |
| April 12, 2008-01-30 | University of Tennessee Undergraduate Math Conference, Knoxville, TN |

| | |
|--------------------------|--|
| July 31-August 2, 2008 | MathFest, Madison, WI |
| November 20-23, 2008 | AMATYC Annual Meeting, Washington, DC |
| January 5-8, 2009 | MAA/AMS Annual Meeting, Washington, DC |
| March 13-14, 2009 | Southeastern Section MAA, Nashville, TN |
| January 6-9, 2010 | MAA/AMS Annual Meeting, San Francisco, CA |
| January 5-8, 2011 | MAA/AMS Annual Meeting, New Orleans, LA |
| January 4-7, 2012 | MAA/AMS Annual Meeting, Boston, MA |
| January 9-12, 2013 | MAA/AMS Annual Meeting, San Diego, CA |

From the Chair



The MAA-SE Executive Committee returned yet again for our fall meeting to the campus of Wofford College in Spartanburg, SC (much to the delight of our members from the North and South Carolina area) on September 7-8, 2007. Many thanks to Charlotte Knotts-Zides for serving as our host even after stepping up into the role as Past-Chair after I encountered several scheduling conflicts with home football games and a

Mason's convention when I tried to hold the meeting at my home institution of Georgia Southern University. We had wonderful weather and a great turnout at Wofford. (We also enjoyed celebrating with Greg Rhoades at that time the recent victory by Appalachian State over Michigan!)

Your Executive Committee continues to try to secure the Southeastern Section's position as one of the best MAA Sections in the country. One way to do this is by encouraging outstanding members of the section to become part of the Executive Committee. In the past, we have heard back from our Nominations Committee that individuals were hesitant to join the committee because of the length of our meetings. (The committee meets on the Thursday evening prior to the annual section meeting in the spring and on a Friday evening/Saturday morning in the fall.) Our Executive Committee took this input to heart and modified the format of our meetings so that they could run more efficiently. I am pleased to report that at our fall meeting, we met on Friday evening for about two hours and completed our work by noon on Saturday. We hope that the same will be true of our spring meeting. Therefore, please don't let the length of meetings to be a deterrent to becoming more active in the leadership of the section.

I know you are looking forward as I am to our section meeting this spring at the Citadel, March 28-29, 2008. Jim Vandergriff, our Program Chair, has been hard at work with Mei Chin and the other organizers to put together an outstanding meeting in Charleston, SC. We will have outstanding plenary speakers, including Polya Lecturer, George Andrews of Penn State University, Angela Shiflet, our Section Lecturer from Wofford College, and David Sumner, our 2007 MAA-SE Teaching Award recipient from the University of South Carolina. We also have several special sessions planned, including *Mathematics in the First Two Years*, *Connecting Math to the Liberal Arts*, *Enhancing Student Engagement in the Undergraduate Mathematics Classroom*, *Innovative Ideas for Teaching Concepts in an Introductory Statistics Class*, *Technology in College Geometry*, *Combinatorial Mathematics* and *Undergraduate Papers*. We will continue to offer outstanding opportunities for students to participate in our section meeting. The Patterson Prizes will be awarded to the top presentations by undergraduates and prizes will go to the winners in Math Jeopardy! This year, we are changing the title of "TA Rush" to the "Graduate School and Career Fair" to perhaps give a better description of the event. Hopefully, students will realize that they can get information about graduate schools and possible career opportunities in the mathematical sciences by meeting with representatives at the event.

Our Section Newsletter will continue to be delivered primarily electronically. Our Newsletter Editor will send out a notice in advance of the posting of the newsletter on the Section website so that we will all be aware when the newsletter is ready for viewing. (Printed versions of the newsletter may be obtained by contacting Karen O'Hara.) The reason for making the decision last spring to have an electronic newsletter was to save the Section thousands of dollars each year for printing and mailing. With these savings, the Executive Committee decided to make an investment in the future of the profession by sponsoring a Project NExT Fellow in the national program. Therefore, our section will be listed with other sections, companies and foundations as sponsors of Project NExT,

and we hope to continue to contribute to this outstanding program in the future. Our section also placed a brick in honor of the Southeastern Section on the *River of Bricks* on the Paul R. Halmos Commemorative Walk at the Carriage House Conference Center, part of the MAA's Headquarters in Washington, DC. (It was a donation by Paul and Virginia Halmos that brought about the restoration and renovation of the Carriage House. The funds raised by the brick donations go to support the Conference Center. Each brick costs \$303 in honor of Paul Halmos' birthday, March 3. The MAA's goal is to have a brick donated for each section.)

Your help is needed in continuing our efforts to provide outstanding faculty development opportunities for our new faculty in the section as well as educational opportunities for students in the section. To help make a difference, please consider making a donation to the Southeastern Section to support the MAA-SE Project NEXt and/or student activities in the Section. (Please send your check to the MAA-SE to John Harris, our Secretary-Treasurer.)

Martha L. Abell

LOOKING FOR A GREAT MATHEMATICS SPEAKER?

Invite a Southeastern Section Lecturer to your campus!

Many think the Section Lecturer only delivers an address at the Annual Meeting of the Section, but this person also visits individual institutions within the Section.

Angela Shiflet of Wofford College is the 2007-2008 Section Lecturer. She is available for the next two academic years. Contact her at shifletab@wofford.edu. Possible talks include:

John Swallow of Davidson College was the 2006-2007 Section Lecturer. He is still available for the 2007-2008 academic year. Contact him at [joswallow@davidson.edu](mailto:joswallow@ davidson.edu). Possible talks include:

A Brief History of Irrationality (E*)

The Radical Roots of Algebraic Numbers (I)

From Galois to Kummer and Back Again: Groups, Modules, and Linear Algebra (A)

***E is for Elementary:** intended for college students who are interested in mathematics, and for educated laymen in the general public. No college level training in mathematics is assumed.

I is for Intermediate: intended for students who have completed a year of calculus or other mathematics at a similar level.

A is for Advanced: intended for junior and senior mathematics majors.

Make your arrangements today!

From the Governor



Report on Governor's Meeting – August 2, 2007

The MAA Governors met on August 2, 2007 preceding this summer's Math Fest in San Jose, California. We learned that the MAA finances remain strong. Treasurer John Kenelly has made some progress toward his goal of bringing the investment balance to \$10 million. The investment balance increased by about \$1.5 million over the past year. The MAA operating budget for 2008 was approved; it projects a \$315,000 deficit (for the past several years budget surpluses have been returned to investments, so it seems possible to budget a deficit for next year – since budgeting is conservative, it is hoped that the deficit will not to be as large as projected),.

The MAA website, MAA Online (www.maa.org), has been revamped – it includes a “Math in the News” item that changes regularly (and is archived). MAA Online contains a new online manual on grant writing to help those considering a project with the MAA. The MAA is working to expand its online data base of jobs that use mathematics (click on “Math Jobs” at MAA Online); they are especially interested in expanding listings of jobs for undergraduates

The MAA continues its strategic planning efforts. The final reports on the Cycle I issues: Competitions, Professional Development, and Revenue are at MAA Online. The Cycle II reports on: Governance, Membership, and Students will be received at the January 2008 Governor's Meeting. The Cycle III issues (Sections, Meetings, and STEM issues) are in the beginning stages of study.

The MAA publications program remains successful. The MAA has several successful textbooks that one might consider adopting, and authors seeking a publisher should consider the MAA (the MAA is particularly interested in publishing upper level textbooks). MAA members now have digital access to the journals to which they subscribe.

William A. Hawkins, Jr., Director of the Office of Minority Participation reported on several interesting projects. The NSF, NSA, and the Moody Foundation have funded 12 “National REUs” (<http://www.maa.org/nreup/>), which provide research experiences for minority undergraduate students. The Tensor Foundation is sponsoring the MAA Tensor-SUMMA program (<http://www.maa.org/programs/tensor-summa.html>) supporting collaborative activities of colleges and universities with middle and high school teachers; twelve sites were chosen for the first year of this program. Also the Archival Record is gathering biographies of minority mathematicians and making them available through MAA Online at http://www.maa.org/SUMMA/archive/SUMMA_WL.HTM.

This year Project NExT has 85 new fellows, representing each of the MAA sections (there are 11 from the Southeastern Section, the largest number from any section). The total number of Project NExT fellows is now over 1000. Our Section has decided to join the four sections that currently are endowing a project NExT fellow position.

The American Mathematics Competition program continues to involve hundreds of thousands of middle and high school students. Thirty-two colleges and universities served as hosts of AMC-10/AMC-12 in February 2007 – this opportunity will continue in this year on February 27, 2008, and institutions interested in hosting the AMC should contact Steve Dunbar at sdunbar@maa.org. Information about the competitions is at www.unl.edu/amc/. The US Olympiad Team finished fifth this year, with one of the two gold medals on the US team awarded to a woman. A 90-minute film on the 2006 Olympiad team will be premiered at the 2008 Joint Meetings in San Diego. The MAA and MSRI funded the first US participation in the China Mathematics Olympiad for Girls held in August 2007 – one of the US competitors tied for the gold metal.

Next summer's Mathematical Study Tour will be to Peru; details will be available at MAA Online. The PREP workshops have one more year of funding – new outside funding is being sought to continue this successful program – watch for the list of 2008 PREP workshops at MAA Online.

I am a new member of the MAA's Science Policy Committee. In March we met in Washington for two days. We talked with congressional staffers and NSF. There seems to be interest in Washington in funding programs that improve the US's STEM programs. We lobbied for bills including the "America Competes" Bill; this summer Congress passed and the President signed the bill. We also met with a senior advisor to Margaret Spellings and a representative of the National Association of State Universities and Land Grant Colleges to talk about the Spellings Commission's plans on assessment in higher education, which may have some impact on mathematics departments.

I hope to see you at the Joint Meetings in San Diego in January, and at our section meeting at the Citadel in March.

Ellen Kirkman

Announcements

Contribute to MAA-SE Student Activities

The Southeastern Section supports student activities at its annual meeting through:

- TA Rush with student pizza lunch
- Undergraduate Student Poster Sessions
- Undergraduate Student Contributed Paper Sessions
- Reduced student registration fees
- Jeopardy Contest

Further, student participation in the Association is encouraged by the State Directors through their organization of state dinners and coordination with MAA Student Chapters.

The Executive Committee of the Southeastern Section invites you to help sponsor these activities through a donation of \$10 or more. Make your contribution by sending a check (payable to MAA-SE) to

John Harris, Secretary-Treasurer, MAA-SE
Department of Mathematics
Furman University
Greenville, SC 29613

Subscribe to Section Listserve

An e-mail listserv has been established for news of the section; subscribe by sending the message

subscribe sesmaa Your Name

(where "Your Name" is your real name; your e-mail address is obtained from the header of your message) to imailsrv@huntingdon.edu

You may also use the subscription form located on the section website at <http://www.maa.org/southeastern>.

**Call For Nominations
for the 2008 Southeastern Section
Distinguished Service Award**

The Southeastern Section presents a Section Distinguished Service Award at the annual spring meeting each year. A member of the Section who has made outstanding contributions at the Section level will be so honored at the 2008 meeting at the Citadel

The Section Distinguished Service Award Committee encourages every member of the Section to submit a nomination to the committee chair for the 2008 award. Please send your nomination including a statement supporting the nomination to David Stone, via surface or email. [David Stone, Chair, MAA Teaching Award Committee, P. O. Box 8093, Department of Mathematical Sciences, Georgia Southern University Statesboro GA 30460-8093, dstone@georgiasouthern.edu]

Nominations for the 2007 award may be carried forward for consideration for the 2008 award, if the nominator so desires. If so, a letter which updates the previous nomination is requested from the nominator.

DEADLINE FOR SUBMISSION: January 28, 2008

Previous Service Award Recipients

The Section Distinguished Service Award has been awarded in even-numbered years, beginning in 1990, then annually, since 1997.

| | |
|------------|---|
| April 1990 | Trevor Evans, Emory University |
| April 1992 | Bill F. Bryant, Vanderbilt University |
| April 1994 | James G. Ware, University of Tenn. at Chattanooga |
| April 1996 | Marcellus Waddill, Wake Forest University |
| March 1997 | John Kenelly, Clemson University |
| March 1998 | David Stone, Georgia Southern University |
| March 1999 | M. F. Neff, Emory University |
| March 2000 | Tina Straley, MAA Executive Director |
| March 2001 | Charles Cleaver, The Citadel |
| March 2002 | Sharon Cutler Ross, Georgia Perimeter College |
| March 2003 | Sylvia Trimble Bozeman, Spelman College |
| March 2004 | Theresa E. Early, Appalachian State University |
| March 2005 | Hugh Haynesworth, College of Charleston |
| March 2006 | Steven Davis, Davidson College |
| March 2007 | Joel Brawley, Clemson University |

Spring Executive Committee Meeting

MAA Southeastern Section Executive Committee Meeting
Wofford College, Spartanburg, SC
September 7-8, 2007

Friday, September 7

The meeting convened at 7:30 pm. Present for the evening session were Martha Abell, Ellen Kirkman, John Harris, Laurie Heyer, Charlotte Knotts-Zides, John Kenelly, Angela Shiflet, Joe Albree, Lila Roberts, Tom Fitzkee, Greg Rhoads, Emily Hynds, and Jim Vandergriff, Jeff Clark.

Minutes from the spring executive committee meeting were approved.

As has been the case for the last few meetings, in order to expedite business at the meeting, officers submitted reports ahead of time (these reports will be posted on the section web site). Individual questions were fielded, rather than going through each report separately.

David Stone (Beginning Faculty Activities) sent word through Martha that his plans for activities at the 2008 meeting are similar to those of the 2007 meeting. There is also a new committee (chaired by Jenny Langdon) in charge of the book sale.

Laurie Heyer (Student Activities) suggested renaming the TA Rush, in an effort to reflect the broader nature of activities there. There was general consensus that this was a good idea.

There was a question as to how well the new newsletter format was received. There were a few problems, but newsletter editor Karen O'Hara is confident that these have been or will be resolved for future newsletters. The committee affirmed the desire to locate a managing editor to assist the newsletter editor.

Regarding the fall newsletter, there was a question as to how a meeting announcement might be included in the paper newsletter notification. Martha agreed to check with Karen about her plans. Jim Vandergriff agreed to investigate the cost of sending an announcement separately.

Regarding the Nominations report, it was pointed out that a successor for Joe Albree (Historian) needs to be considered. Joe has recently announced that he would retire from this position.

Joe Albree reported that M. F. Neff's books now reside in the math department library at Emory. Joe also brought up the question of archiving electronic materials. This is still a question that needs to be answered, since guidelines don't really exist in this area yet.

John Kenelly gave a positive treasurer's report from the national office. Current endowment is approximately \$7.5 million. The goal is to reach \$10 million. John suggested that the best way for donations to be handled is through the national office. He also reminded the group to be aware of development opportunities in the section.

Martha asked us to consider the nature of the gifts we give to award recipients. In the future, we may consider revising this.

Ellen reported that MAA president Joe Gallian has asked that every section consider buying a brick for MAA's River of Bricks. Motion to buy a brick was made and seconded. Motion passed unanimously. Harris will handle this.

Joe had also requested that our section consider sponsoring a Project NExT fellow. This would be \$2500 per year. A suggestion was made to have the fellow named the Southeastern Section Fellow actually be someone who is teaching (or has accepted a position) in the Section. John Kenelly thinks the MAA would be amenable to this. There motion to allocate \$2500 for one year, with the request that the fellow teach full time for that year in the Section. The motion was seconded and passed. John Harris will inquire about the Section residence request. The committee also agreed to invite the membership (in the newsletter and at the Section meeting) to donate to support this cause.

Martha shared news of an email that she recently received (from a 2008 meeting organizer) regarding the possibility of having SIAM-SEAS share in the hosting of the 2008 meeting. The committee discussed the nature of this request, specifically details regarding registration fees, space for contributed paper sessions, etc. Motion is made, seconded and passed to offer joint sponsorship, in the form of contributed paper session(s) and a Saturday afternoon speaker. Martha will communicate this decision to SIAM-SEAS and will ask them to respond to this offer in a timely manner.

The meeting adjourned at 9:30 pm.

Saturday, September 8

The meeting convened at 8:45 am.

Mei Chen and Dave Trautman of the Citadel gave a presentation regarding local arrangements for the upcoming spring meeting.

Laurie Heyer (as Student Activities Coordinator) agreed to organize and invite graduate schools and employers to the Graduate and Career Fair (formerly known as the TA Rush).

Jim Vandergriff, prior to this meeting, sent committee members a preliminary version of the registration form and a template for the meeting program. The MAA has requested

that additional data be obtained on section meeting registration forms, and the committee discussed methods for efficiently (and accurately) collecting this data.

Jim also described the three short course proposals that he had received to this point. The committee reacted favorably to each of these three. Jim agreed to investigate possibilities for a fourth short course.

Jim also gave descriptions of several proposed special sessions, each of which sounded appropriate.

The committee agreed to use the 2007 program, with minor adjustments, as the template for 2008.

The committee discussed the potential for an online registration system. It was agreed that the Section should take steps toward the establishment of such a system, but not for the 2008 meeting. One possibility would be to inquire about utilizing the tools of the national MAA office.

The meeting adjourned at 12:15 pm.

Thirteenth Annual Mathematics Tournament for Two-Year Colleges

Saturday, April 12, 2008

Gainesville State College

All two year colleges, (and four year schools with only a two year math program) throughout the Southeast are invited to participate. This is an excellent opportunity for your best math students to compete against other two-year college students for significant prizes. The competition features both individual and team events involving problems from algebra, geometry, trigonometry, statistics, and calculus. Complete tournament information and registration forms are available on our website at:

<http://www.gsc.edu/math/tournament>

**87th Annual Meeting
Mathematical Association of America
Southeastern Section**

Friday-Saturday, March 28-29, 2008

**The Citadel
Charleston, South Carolina**

**Deadline for Special Session Organizers
Monday, October 15, 2007**

**Deadline for Contributed Papers
Friday, February 15, 2008**

**Contact Jim Vandergriff, Program Chair
vandergriffj@apsu.edu**

The members of the Southeastern Section of MAA look forward to being on The Citadel campus for the annual conference. The Section would like for the program to incorporate a wide range of topics of interest to faculty and students in two-year colleges, four-year colleges, regional universities, and research universities. Consequently, the MAA program chairperson would like to hear from members who wish to suggest topics for special sessions, individuals who could offer short course, or individuals who may be general session speakers. Please send suggestions to the Program Chair by **June 15, 2007** so that they can be included in discussions at a planning meeting later in June. A preliminary announcement of special sessions will appear in the Fall Newsletter.

**Mathematical Treasure
Student activity
at SE Section MAA meeting**

On March 27, 2008, the Thursday evening prior to the MAA-SE meeting at the Citadel, there will be again be a student activity: the Mathematical Treasure Hunt. Students participating in Mathematical Treasure will use mathematics to follow a trail of clues something like the trail followed in the movie National Treasure. This activity will be non-competitive and will give participants a chance to meet students from other colleges and universities. Also, student chapters attending will be asked to sign up to provide some type of snack. Any faculty members who would like to help with this event or any student chapters who would like to participate should contact Julie Barnes (jbarnes@email.wcu.edu). Details about time and location will be in the conference program.

Consider a Contribution

in support of

MAA-SE Student Activities

Student activities in the section are growing!

**TA Rush with student pizza lunch
Undergraduate Student Poster Sessions
Undergraduate Student Contributed Paper Sessions
Reduced student registration fees
Jeopardy Contest**

See page 10 for details

News from the Campuses

Agnes Scott College (Decatur, GA)

Agnes Scott now offers an M.A.T. program in secondary mathematics, in two formats - full time in twelve months, or part time over two years, open to men and women. Myrtle Lewin has been the lead designer of this program. With a grant from the Arthur Vining Davis Foundations, we are collaborating with Bennett College and Converse College, two other women's colleges, in our mathematics and science teacher education programs.

Jim Wiseman co-organized a special session in dynamical systems at the spring AMS Southeastern section meeting at Davidson College. Alan Koch, along with Agnes Scott alumna Audrey Malagon, published "p-adic Order Bounded Group Valuations" in the Glasgow Mathematical Journal. This paper resulted from Audrey's independent study with Alan during her senior year at Agnes Scott.

During the 2007 Commencement Exercises, Larry Riddle was announced as the 2008-2009 recipient of the Joseph R. Gladden Jr. Public Lecture Award. Given every year to a member of the Agnes Scott faculty whose scholarly activities are especially noteworthy, the award honors Joe Gladden, who served as chair of the Agnes Scott Board of Trustees for 10 years. Award recipients are asked to give a public lecture to the entire Agnes Scott community on a topic related to his or her scholarly work. In July, Riddle completed his two-year term as chair of the College Board Advanced Placement Calculus Development Committee.

(Submitted by Larry Riddle)

Armstrong Atlantic State University (Savannah, GA)

Elizabeth Scott-Janda joined our faculty this year. She comes from Colorado State University where she is finishing a PhD. Combinatorics is her area of interest. Dale Kilhefner is retiring from the University this year. Dale has been at Armstrong since 1973. He has been a role model for many of our students and many of his colleagues. He will be missed. Jim Brawner was the 2006-07 recipient of the H. Dean Propst Award, which recognizes the outstanding faculty member of AASU. The award comes from the Student Government Association and is decided by the students. This past summer Mark Budden was a Gignilliat Research Fellow. This award is very competitive. It allows a faculty member to devote time to research interests. This spring Selwyn Hollis will be on Advanced Academic Research Leave. On November 10 we will host our twenty-fourth Middle School Math Contest and on February 16, 2008 we will hold our thirtieth High School Mathematics Tournament.

(Submitted by Tim McMillan)

Austin Peay State University (Clarksville, TN)

Jim Ridenhour retired this year after 35 years of service. We are fortunate that he will remain in a post-retirement capacity.

We are pleased to welcome seven tenure-track faculty members. They are: Ann Assad, Ph.D. from Southern Illinois at Carbondale, Han Wu, Ph.D. from Iowa State University, Kirsten Boyd, Ph.D. from Stanford University, John Bryden, Ph.D. from University of Western Ontario, Yuriy Bulka, Ph.D. from University of Alabama, Ben

Ntatin. Ph.D. from Ruhr-Universitat, Bochum, Germany, Ramanjit K. Sahi, Ph.D. from University of Texas at Dallas.

The Mathematics department, in collaboration with other departments, received two major grants from the National Science Foundation. The NSF awarded a grant of \$582,740 to fund the project, "STEM Scholarships in Mathematics and Physics at Austin Peay State University." STEM is an acronym for Science, Technology, Engineering and Mathematics. The grant will be used to establish the Mathematics and Physics Summer (MaPS) Institute at APSU. The NSF also funded a high-performance computer cluster to support research in physics, mathematics, chemistry, and computer science in the amount of \$176,177.

APSU will be hosting the annual Tennessee Mathematics Teachers Association conference in conjunction with Middle Tennessee Mathematics Teachers on September 19-20, 2008. APSU faculty member, Jackie Vogel, is the current president of MTMT as well as membership coordinator for TMTA. The conference is for preK-college mathematics teachers. Typically there are about 400-500 teachers in attendance.

In September, Mary Lou Witherspoon was elected as president-elect of Tennessee Association of Mathematics Teacher Educators, the state affiliate of AMTE.

APSU faculty member, Samuel Jator, gave an invited talk at the Fourth International Conference of Applied Mathematics and Computing in Plovdiv, Bulgaria, in August, 2007.

Amy Dexter, mathematics major, was offered a Presidential Research Scholars fellowship. She also accepted a Research Experiences for Undergraduates (REU) program at the University of Arizona this past summer.

APSU was a host site for the Middle Tennessee Region of the 50th Tennessee Mathematics Teachers Association Annual Mathematics Contest for high school students in April. We will once again be a host site for this contest next April. We also host the annual APSU middle school mathematics contest in April of each year, rewarding and encouraging young students to study mathematics.

(Submitted by Jim Vandergriff)

The Citadel (Charleston, SC)

Peter Greim is on sabbatical during the fall term. He works on mathematical aspects of quality control for air- and space-borne LIDAR remote sensing operations.

The department is preparing to host the 2008 MAA-SE regional meeting on 28 and 29 March, 2008. The interested reader may find information about this meeting at http://macs.citadel.edu/chenm/MAA-SE/webpage_08.htm.

(Submitted by Dave Trautman)

Duke University (Durham, North Carolina)

Congratulations to Professor Robert Bryant on his recent election to the National Academy of Sciences and on his appointment as the Director of the Mathematical Science Research Institute in Berkeley, California.. We look forward to his return to Duke after completing this distinguished service to the mathematical community.

Assistant professor Mauro Maggioni has been awarded the Vasil Popov Prize. This prize is awarded every third year to an outstanding young mathematician.

The life and work of Professor Arlie Petters was featured on the PBS Nova series last July.

After decades of dedicated service, two of our most popular teachers, Richard and Margaret Hodel, are ending their regular teaching duties. We wish them both a happy and exciting retirement.

Three teams of Duke students received Outstanding in the Math Contest in Modeling. Another Duke team received Outstanding in the related Interdisciplinary Contest in Modeling. Only sixteen of the 1222 teams from around the world that participated in these grueling 96 hour contests last February received an Outstanding designation.

The annual Duke Math Meet for high school students throughout the Southeast will be held on Saturday, November 17, 2007. For more information, see www.math.duke.edu/dumu/mathmeet/.

(Submitted by David Kraines)

Elon University (Elon, NC)

The Elon Department of Mathematics is keeping busy with some exciting developments in our curriculum. Under the guidance of Ayesha Delpish, the department has implemented an applied minor in Statistics. We have also redesigned our BA in Mathematics to include a concentration in Applied Mathematics.

Jim Beuerle received tenure and promotion to Associate Professor. Todd Lee won the 2007 Elon College of Arts and Sciences Excellence in Teaching Award.

Richard Haworth has announced his plans to retire at the end of the 2007-2008 academic year. Richard has been at Elon since 1974 and is the longest-serving member of our department. A celebration in Richard's honor is planned for May.

(Submitted by Ellen Mir)

Francis Marion University (Florence, SC)

Dr. Rich West was promoted to Professor. Dr. Damon Scott was awarded tenure and promoted to Associate Professor. Dr. Fangjun Arroyo was promoted to Associate Professor.

The Francis Marion Undergraduate Mathematics Conference (FMUMC) was held March 30th, 2007. We had 13 students present 12 talks, with an address given by Dr. Arlie Petters from Duke University. The next FMUMC will be held on April 11th, 2008.

(Submitted by Dave Szurley)

Georgia College & State University (Milledgeville, GA)

We have two new faculty members in tenure-track positions: Dr. Rodica Cazacu and Dr. Angel Abney. Rodica received her Ph.D. in 2005 from Louisiana State University. Her research interests are in order topology, domain theory, and nonlinear optimization. For the past two years, Angel has taught at GCSU, but this year she joins our department in a tenure-track position. Angel recently completed the requirements for the Ph.D. in Mathematics Education from the University of Georgia.

Dr. David J. DeVries, Professor Emeritus of Mathematics at GCSU, passed away on March 19, 2007. He served as chair of the Department of Mathematics at GCSU from

1983-1995, and he continued as a faculty member in the department until his retirement in 2004. After retirement, he continued to teach in the department until 2006.

Dr. Laurie Edler and Dr. Jason Huffman were each promoted to Associate Professor of Mathematics, and Ms. Janet Shiver was promoted to Assistant Professor of Mathematics. Dr. Ryan Brown was selected as a 2007-2008 ExxonMobil Project NExT Fellow. On a personal note, Ryan and Ardith Brown had their first child, Simon Robert, on Saturday, October 6.

The University System of Georgia (USG) has identified a need in the state of Georgia for supporting education in Science, Mathematics, Engineering, and Technology (STEM). A recently announced initiative is called "MATH + SCIENCE = SUCCESS," and the USG has designated \$1.6 million immediately and possibly as much as \$10 million in the coming years to support the initiative. Three broad goals exist for the initiative: 1) Increase the number of STEM majors in college; 2) Improve student preparation, STEM instruction, and student learning in K-12 and in college; and 3) Increase the number and quality of middle and secondary STEM teachers in Georgia. A call for proposals was issued in July 2007, and public institutions were recently notified of the status of their requests. Georgia College & State University was fortunate to be among those chosen for the additional allocation of funds as part of the STEM initiative. Indeed, GCSU's proposal was placed by the STEM selection committee in the "top tier" of all proposals submitted, and the immediate allocation of \$210K was the "highest amount awarded to any institution for faculty positions." It took great collaboration and cooperation from faculty and staff across the campus to put together this successful proposal, and in particular, members from the departments of biology & environmental science, chemistry & physics, and mathematics and from the School of Education participated in these efforts.

Department faculty (Angel Abney, Blair Dietrich, Lila Roberts, Hugh Sanders, and Janet Shiver) are participating in two projects funded by the Math Science Partnership grant program. The Teacher Experiences for the Advancement of Mathematics for Students (TEAMS) partnership is a collaboration with the Jones County, Georgia school district. The Science & Mathematics Alliance for Regional Teachers (SMART) is a partnership with the Oconee RESA, serving a six-county rural area in Central Georgia. Each two-year partnership provides in-service teachers with in-depth content enhancement and inquiry-based pedagogy aligned with the Georgia Performance Standards.

Dr. Sara L. Nelson graduated from Georgia State College for Women (now Georgia College & State University) in 1926 with a bachelor's degree, majoring in mathematics with a minor in chemistry. After receiving her Ph.D. in mathematics from Cornell University, she joined the faculty of Georgia College and was a beloved teacher of mathematics until her retirement in 1968. As a result of a generous endowment from Dr. Nelson, the Department of Mathematics will award several scholarships on an annual basis. The Sara Nelson scholars for the 2007-2008 academic year are Jessica Wehner, Russell Holloway, Michael James, Katharine Thompson, Jessica Ollom, and Christopher Washington. All of these scholars are mathematics majors who have excelled academically in both in the major and in the general curriculum at Georgia College and have participated enthusiastically in extra-curricular departmental activities.

We will be hosting the Georgia MAA State Dinner this spring (date to be announced).
(Submitted by Martha Allen)

Georgia Southern University (Statesboro GA)

We have the following new tenure-track faculty this year: Alina Iacob (Ph.D., University of Kentucky, 2005; comes to us from an Assistant Professor position at the University of North Carolina - Wilmington), Andrew Sills (Ph.D., University of Kentucky, 2002; comes to us from the position of Hill Assistant Professor at Rutgers University), Xiangdong Xie (Ph.D., University of Utah, 2001; comes to us from a Visiting Assistant Professor position at Virginia Tech) and Shijun Zheng (Ph.D., University of Maryland, 2003; comes to us from a postdoctoral position at the Industrial Mathematics Institute at the University of South Carolina). In addition, Bridgett Lee and Marshall Ransom moved from the positions of temporary instructors to permanent positions as Lecturers, and Sharon Barrs rejoined us as part of an initiative to promote an increased production of mathematics educators in the State of Georgia. Sharon served for the past two years in the Bulloch County School System where she was the Partnership for Reform in Science and Mathematics (PRISM) coordinator.

The 19th Mathematics Tournament for junior high and high school participants was held February 10, 2007 and attracted more than 800 participants. We should be just as successful with this year's tournament which will be held March 8, 2008.

Many of our faculty members were recognized during the year for service and teaching accomplishments. Pat Humphrey was announced in May as a winner of the 2007 Georgia Southern Award for Excellence in Contributions to Instruction; in March 2008, she will present "I Teach, Therefore I Am" to the University community as part of the Focus on Excellence Program for winners of University-level awards. Sharon Taylor received a 2007 College of Science and Technology Award for Excellence in Teaching. Susie Lanier received the 2006 John Neff Award given by the Georgia Council of Teachers of Mathematics for service to the P-12 mathematics community. Broderick Oluyede and Donna Saye were recognized as outstanding teachers on the GSU campus by the Student Disability Resource Center. David Stone was nominated to be MAA President (too bad he didn't win!) Pat Humphrey was elected Chair-elect of the SIGMAA on Statistics Education; she will take over as Chair of the SIGMAA this January. Donna Saye was elected to the post of Southeast Vice President of the American Mathematical Association of Two-Year Colleges (AMATYC). In addition, Pat Humphrey was selected to serve on the Core Curriculum Design and Assessment Committee in the University System of Georgia. Lastly, our own Martha Abell is currently the Southeastern Section Chair and serves as Chair of the Academic Advisory Committee on Mathematical Subjects in the University System of Georgia.

We had a great time hosting the Section Meeting March 16-17, 2007! It was so nice to be able to show off our College of Information Technology facilities and to see so many of you there!

(Submitted by Pat Humphrey)

High Point University (High Point, NC)

The Department of Mathematics and Computer Science hired two new faculty members. Dr. Laurie Zack is an Assistant Professor of Mathematics whose research

interests are in group theory, Lie algebras, and combinatorics. Dr. Kim Titus is an Assistant Professor of Mathematics whose research interests are in applied mathematics as it pertains to the physical sciences.

Dr. Rob Harger was promoted to Professor of Mathematics.

HPU students Stephanie Webster, Glenn Ford, and Thang Pham received an Honorable Mention ranking in High Point University's first participation in the annual COMAP modeling competition. Dr. Brian Fulton was their faculty sponsor. Stephanie Webster also presented a talk entitled *Harry Makowitz's Modern Portfolio Theory* at MAA-SE in Statesboro, GA.

At MAA-SE, Dr. Ron Lamb presented a talk entitled *An Introduction to Statistics for the Mathematically Inclined*, Dr. Lisa Carnell presented a talk entitled *Enhancing Instruction in a Remedial Math Course*, and Dr. Karen O'Hara spoke on several topics at the Project Next sessions including the pros and cons of technology in the classroom, issues surrounding tenure, and advice for new college teachers.

Mr. Roger Shore took four teams of HPU students to the ACM competition at Duke University where 138 schools participated from the Mid-Atlantic Region. The top HPU team finished 19th. The teams also participated in a smaller competition at A&T State University where out of 12 teams, the top HPU team finished 3rd.

Dr. Lisa Carnell presented a session at the North Carolina Council of Teachers of Mathematics entitled "Primes, Factors, and Perfect Numbers."

Dr. Laurie Zack gave a talk at Davidson College entitled "Applications of Young Diagrams and Young Tableaux".

(Submitted by Lisa Carnell)

King College (Bristol, TN)

Philip Carroll, ABD from Virginia Tech, is now part of the King College mathematics department. Bill Linderman finished a sabbatical at Cornell University where he also took some composition courses, writing scores in Sibelius. He's a concert pianist as well as a mathematician. Andy Simoson had an MAA book appear in May, Hesiod's Anvil: falling and spinning through heaven and earth, volume 30 in the Dolciani series. As part of a revamping of the hierarchical structure of the college, the mathematics and physics departments have been consolidated into a single department. So now a typical teaching load might include both Calculus I and Classical Mechanics I.

(Submitted by Andrew Simonon)

Mercer University (Macon, GA)

Andrew Gainer was the recipient of the 2007 Riley Plymale Award for Excellence in Mathematics, presented to the senior mathematics major whose work has been judged by the Mathematics faculty to be exemplary. Andrew is now a graduate student in mathematics at Brandeis University.

Alan Deeley has joined the department as a visiting instructor. He has an M.A. in mathematics from San Diego State University and an M.S. in mathematics from Tulane University. He has previously taught at Clark Atlanta University, Spelman College, and other colleges in the region.

Professor Carolyn Yackel is the co-editor of *Making Mathematics with Needlework: Ten Papers and Ten Projects*, published by A K Peters. The book will be available by December and can be pre-ordered now.

Professor Phillip Bean will be retiring at the end of this academic year after thirty-six years of service to the department and the university.

The department hosted its 2007 Sonia Kovalevsky Day on September 29 and David Blackwell Day on October 20. The two programs are similar, but Sonia Kovalevsky Day is designed for high school girls and David Blackwell Day for high school boys.

The Twenty-Third Annual Mercer University High School Mathematics Contest will be held November 10, 2007.

(Submitted by Curtis Herink)

North Carolina A&T State University (Greensboro, NC)

Dr. Mingxiang Chen was promoted to Associate Professor effective July 2007. Dr. Nail Yamelev was tenured effective July 2007. Dr. Liping Liu, Dr. Thomas Redd, and Dr. Yevgeniy Rsatigeyev were appointed as Assistant Professors, effective July 2007.

A fund raiser for the Gilbert Casterlow Jr. Scholarship was held in October. Honoree and professor emeritus Dr. Gilbert Casterlow Jr., with his usual exuberance, encouraged those who attended to maintain their health as they continue in their many roles as scholars and educators, and other professions.

Dr. Giles Warrack attended the 10th ONR/GTRI Workshop on Target Tracking and Sensor Fusion held at the Naval Postgraduate School in Monterey, CA. The conference was sponsored by the Office of Naval Research and Organized by the Georgia Tech Research Institute. The conference took place May 22-23, 2007.

Dr. Warrack also attended the International Conference on Advances in Interdisciplinary Statistics and Combinatorics held at UNC-Greensboro Oct 12-14, 2007.

Dr. Dominic Clemence and Dr. Mingxiang Chen and graduate student Ms. Tanya Craft went to Botswana this summer (May) to do research on HIV and TB epidemic interactions, using mathematical modeling. Their sponsors were the Botswana College of Agriculture (BCA) and the NC A&T State University Futures Ventures program. A public lecture: "Pigs, Phosphate, and Mathematics" was also given by Clemence, who also gave another public lecture: "Dynamic Systems Modeling in the Biomedical Sciences" at the National University of Science and Technology in Zimbabwe.

Dr. Mingxiang Chen and Dr. Dominic Clemence participated at the DIMACS *DIMACS Workshop on Mathematical Modeling of Infectious Diseases in Africa* (June) at the University of Stellenbosch (South Africa), where Clemence presented an invited talk: "Intervention impacts in joined-up HIV and TB epidemics".

Dr. Clemence was one of the editors of a recent AMS publication: "Studies on the Dynamics of Human Diseases: Emerging Paradigms and Challenges" AMS Contemporary Mathematics Series, Number 410, AMS, Providence, RI. (Co-editors are A.B. Gumel (Editor in Chief), C. Castillo-Chavez; and R. E. Mickens) 2006

Dr. Chen, Dr. Clemence, and Dr. Gregory Gibson, along with former undergraduate student Ms. N. Daniel-Jones have submitted a paper for publication:

“Mathematical and Numerical Analysis of models for CO binding to sickle cell Polymers,” to the Journal of Difference Equations and Applications.

Dr. Dominic Clemence continues to work with The Academy for Sports and Computational Exploration in Science (ASCES), a collaborative project with NCA&T, The Black Child Development Institute of Greensboro, and the Hayes-Taylor YMCA. This summer (2007) area middle and high school students participated in a summer institute whose theme was epidemiology. Both Dr. Clemence and Dr. Chen currently work with the BLEND program, which works with college students in mathematical modeling in epidemiology and population biology.

Dr. Alexandra Kurepa (PI), Giles Warrack, and Janis Oldham (co-PI's) have received an award from the National Science Foundation in the amount \$574,968 for the period 2007-2012. The project is part of the NSF S-STEM program and will provide support to talented undergraduate and graduate students in the NCA&T Applied Mathematics program.

Alexandra Kurepa (PI) received the MAA/Tensor SUMMA award in the amount of \$6000 for the 2007-2008 year. The grant will fund enrichment projects for students taking AP Calculus and will be incorporated as part of the Saturday Academy organized by GAMSEC (Greensboro Area Mathematics and Science Education Center). Co-PI's on the project are Dr. Barbara Tankersley and Dr. Vallie Guthrie (Chemistry).

Alexandra Kurepa organized the Twelfth Annual NCA&T Math Awareness Day on April 19, 2007 as part of the national observance of Mathematics Awareness Month. The program included graduate and undergraduate math student presentations as well as a poster session.

Dr. Liping Liu went to the ASME International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE), September 4-7, 2007, held in Las Vegas, Nevada. The conference provides an international forum where leading experts with background and experience in design can effectively showcase and share their newest ideas, cutting-edge research, developing methodologies and/or tools, etc. among their peers. The 2007 IDECT/CIE consists of record-breaking thirteen conferences. More details can be found on the conference website: www.asmeconferences.org/IDECT2007

Dr. Liu's work, in collaboration with colleagues from Texas A&M and Duke University (where Dr. Liu had previously held a post doc) was presented in the mini-symposium "Dynamics and Control of Time-Delay Systems". The full paper was published in the peer-reviewed conference proceeding.

Dr. Liu also gave a talk entitled "High Dimensional Harmonic Balance Analysis of A Second-Order Delay-Differential Equation". An article was submitted to "Journal of Vibration and Control" for possible publication.

Dr. Liu received two review requests recently from "Journal of Sound and Vibration" and "Journal of Fluids and Structures", and an invitation to review a paper for the Journal of Engineering Mechanics.

Dr. Kossi Edoh, Dr. Guoqing Tang, Dr. Yaw Kyei, Dr. John Rhoop were part of the project team that ran the 2007 Summer Information Assurance program. The program was funded through the National Security Agency, the US Department of Education, and the National Science Foundation. Programs through the three agencies jointly hosted an eight -week summer program for qualified undergraduates in science, mathematics,

engineering, business, sociology, and technology. The program involved undergraduate students in projects involving e-commerce security, firewall and network auditing, cryptography, virtual private networks, and digital forensics.

In April 2007 the Math department again hosted high school students participating in the state high school math contest. NCA&TSU is a regional site. Dr. Bampia Bangura coordinated the effort. Dr. Bangura was assisted by the NCA&T chapter of the NCCTM, Pi Mu Epsilon member, and faculty volunteers.

(Submitted by Janis M. Oldham)

North Carolina State University (Raleigh, NC)

Professor Carl Meyer was selected for the 2007 Mathematics Department Alumni Award at Colorado State University. Professor Jack Silverstein has been elected to Fellowship in the Institute of Mathematical Statistics. He was presented with a plaque on Monday, July 30 at the 2007 IMS Annual Meeting in Salt Lake City. The citation reads: "For seminal contributions to the theory and application of random matrices."

NCSU is pleased to have hired Dr. Plamen Koev as an Assistant Professor. Dr. Koev comes to us from UC Berkeley (2002) after completing his Post-Doc at MIT. We also hired lecturers Elizabeth Dempster, Jon Ernstberger, Leslie Kurtz, and Stephanie Whitt. Dr. Lung Chung retired in August, 2007.

NCSU is hosting several visitors this semester, including Dr. Ruyong Feng visiting Prof. Singer, Liangsong Li visiting Assistant Prof. Pang, Dr. Meijing Shan and Dr. Werner Krandick visiting Prof. Hong, Bo Dong visiting Prof. Chu, and Jinru Chen visiting Prof. Li. Dr. Jayasimha Atulasimha (Univ. Maryland, 2006), and Dr. Michael Stuebner (Louisiana State, 2006) are working with Prof. Smith as a post-doc.

In February, 2008, NC State Mathematics Department will host a conference in honor of Steve Schecter and Xiao-Biao Lin, to celebrate their 60th birthdays, and their contributions to mathematics. The conference, entitled "The Geometry and Analysis of Dynamical Systems" will be held February 22-23, 2008. The conference web page URL is www.math.ncsu.edu/GADS

The NC State Mathematics Department will host an Alumni Reception at the Joint Mathematics Meetings, San Diego, California, on Monday, January 7, 2008, from 5:45 PM to 7:00 PM. All alumni, friends, and family are invited for hors d'oeuvres, conversation, and to hear about recent events in the department.

The Mathematics Department is looking forward to moving into our new building made possible through the generous support of SAS. We anticipate a completion date of November, 2008. The new building will house Mathematics and Statistics. It will have a large auditorium and several other classrooms, as well as ample meeting space, a library/reading room, a large lounge, and office space for faculty and students.

You can discover more about the Department by visiting our web site:
www.math.ncsu.edu

(Submitted by Jeff Scroggs)

North Georgia College and State University (Dahlonega, GA)

The Department of Mathematics and Computer Science was pleased to welcome Karen Briggs in August as a new assistant professor. Karen completed her Ph.D. in Mathematics at the University of California in San Diego in 2003, specializing in the

field of combinatorics. Karen spent her previous two years working at Clayton State University, and she spent this past summer enjoying her role as a new mom to Andrew Thomas Briggs, who was born on May 4, 2007.

Congratulations are also in order for Robb Sinn, who was promoted this year from assistant professor to associate professor.

Jimmy Woods retired at the end of the 2006-2007 academic year after 20 years of service to NGCSU and 31 years of teaching overall. Jimmy continues to teach for the department on a part-time basis. Judy O'Neal also plans to retire at the end of the 2007 calendar year, after 12 years with NGCSU. Starting in January, she will also continue to teach part-time for the department, advise students in the mathematics education graduate program, and remain active in mathematics education projects with local agencies and area schools.

Robb Sinn and Dianna Spence were awarded a National Science Foundation Grant of approximately \$175,000 for a project in the Course, Curriculum, and Laboratory Improvement (CCLI) program. The project, "Authentic, Career-Based, Discovery Learning Projects in Introductory Statistics," will lead to the development of discovery-based teaching materials for statistics. The materials will be developed with input from an interdisciplinary team of professors at NGCSU and will be piloted in classes at NGCSU, Georgia Perimeter College, and Forsyth Central High School. The funding supports work on the project for two years, from summer 2007 through fall 2008.

Brad Bailey was selected as a Project NExT fellow for 2007-2008. Project NExT (New Experiences in Teaching) is a professional development program of the MAA for new or recent Ph.D.s in the field and addresses the teaching and learning of mathematics, research and scholarship, and professional activities.

Judy O'Neal was one of two individuals selected to represent the state of Georgia at the MSP STEM Summit in Washington, D.C. this coming December. The Department of Education, in collaboration with the National Science Foundation, is holding this meeting for science, technology, engineering and mathematics (STEM) faculty. The purpose of the meeting is to bring together faculty involved with Math Science Partnership (MSP) projects to discuss the role of STEM faculty in K-12 school improvement.

Several faculty have represented the department this year by presenting at various conferences in the field, including the NCTM national conference, the International Conference on Technology in Collegiate Mathematics (ICTCM), Association of Mathematics Teacher Educators (AMTE), Georgia Mathematics Conference, the Southeastern Scholarship Conference on E-Learning (SSCEL), and the Southeastern International Conference on Combinatorics, Graph Theory, and Computing (CGC).

The department hosted its annual Mathematics Tournament on March 9, 2007. Approximately 120 area high school students and their teachers participated in the events, which included several competition categories for students and discussion panels for the faculty. Next year's tournament is scheduled for March 7, 2008.

(Submitted by Dianna Spence)

Pellissippi State Technical Community College (Knoxville, TN)

This fall the Mathematics Department welcomes two new full-time faculty members, Sue Ann Dobbyn and Amy Tankersley. Both had served as adjunct faculty at

the College. Dobbyn is a former research and development engineer and earned the masters degree at New Mexico State University. Tankersley earned the masters degree at the University of Tennessee.

Two faculty members retired this year: Associate Professors Judy Ahrens and Jane Casey after 15 and 29 years, respectively, of service to the College.

Congratulations to Daryl Thomas who was promoted to the rank of Assistant Professor and to Robert Jackson for promotion to the rank of Associate Professor.

On April 27, 2007, the Seventh Annual Pellissippi State Middle School Math Bowl attracted more than 300 competitors from 20 middle schools throughout East Tennessee. The Bowl was sponsored by Oak Ridge Associated Universities (ORAU) and coordinated by Associate Professor Jonathan Lamb.

ORAU has made a contribution to the College Foundation to support the 2007-2008 Mathematics Department competitions and other activities to encourage student interest in mathematics. The funds will be used for college, intercollegiate, and middle school math competitions.

(Submitted by Catherine Williams.)

Presbyterian College (Clinton, SC)

Paul Campbell retired from the Department of Mathematics in May after 46 years of faithful service. Professor Campbell was the senior member of the Presbyterian College Faculty. The department is establishing a scholarship at PC in Professor Campbell's honor to benefit students who major in mathematics, physics, or economics/business administration.

Kara Shavo has rejoined our department as Associate Professor of Mathematics, having served at PC from 1996 to 2002.

Doug Daniel was promoted to Associate Professor of Mathematics, and awarded tenure. Clint Harshaw was also awarded tenure.

Brian Beasley attended the MAA PREP workshop "The Art of Factorization in Multiplicative Structures" at Trinity University in May.

(submitted by Clint Harshaw)

Roane State Community College (Harriman, TN)

Recently retired: Becky Howard, Associate Professor of Math and Barbara Phillips, Associate Professor of Mathematics. Tressa Murphy received tenure and was promoted to Associate Professor of Mathematics.

The dept. welcomes Benjamin B. King, B.A., Mathematics, Lipscomb University, and M.S., Mathematics, University of Tenn. at Knoxville as Assistant Professor of Mathematics and Outreach Mathematics Faculty.

The department continues to be a host site for the Annual High School Math Contest of the TN Math Teachers Assoc.. The exam is coordinated on campus by Jill Denton, Assistant Professor of Mathematics.

Dr. Larry Bouldin, Dean of Math-Sci and Professor of Mathematics, was awarded the Exemplary Leadership Award by The Chair Academy at their annual meeting in Jacksonville in March.

(Submitted by Larry Bouldin)

Spelman College (Atlanta, GA)

The Enhancing Diversity in Graduate Education (EDGE) program was a 2007 recipient of the award for “Mathematics Programs that Work” from the American Mathematical Society, given to recognize exemplary programs that successfully address the issue of underrepresented groups in mathematics. The EDGE Program, co-directed by Sylvia Bozeman, is a joint project of the Mathematics Departments of Spelman College and Bryn Mawr College. The 3rd Annual Etta Z. Falconer Mathematics Lecture was given by Roselyn Williams, Professor of Mathematics, Florida A & M University in April 2007.

Two summer programs were held. Tasha Inniss and Fred Bowers directed a MAA NREUP on Data Mining and Applied Statistics, Monica Stephens directed the first year of a 5-year DOE program: Women in Science, Technology, Engineering and Mathematics (WiSTEM). Nagambal Shah presented a paper entitled “Environmental Statistics Practicum: A Project Based Interdisciplinary Model to Training Undergraduates” at the International Conference on Mathematics and Statistics, held in Athens, Greece in June 2007.

In September 2007, the NSF awarded 2.5 million dollars to Spelman College for their proposal to the HBCU-UP Program. The 5-year HBCU-UP Project is entitled ASPIRE: Advancing Spelman's Participation in Informatics Research and Education and will be co-directed by Tasha Inniss, co-PI of ASPIRE. The rationale of this project is that it will enable the development of new interdisciplinary informatics research collaborations, new interdisciplinary STEM curricula that strengthen students' computational and analytical skills, and new partnerships with governmental agencies, industry, and other educational institutions.

Two Spelman math graduates received PhDs. Talithia Daniel Williams (C'2000) received a Ph.D. in Statistics from Rice University and Emille Davie (C'2001) received a Ph.D. in Mathematics from the University of Georgia.

The department (and college) celebrated the 35 years of dedicated service and teaching that Nagambal Shah has given to Spelman. Tasha Inniss received the Spelman College Presidential Award for Excellence in Teaching for Junior Faculty. Sylvia Bozeman will receive the Dr. Etta Z. Falconer Award for Mentoring and Commitment to Diversity at the Infinite Possibilities Conference to be held in November at North Carolina State University.

Mohammed Tesemma and Gladys Glass are on sabbatical for the fall semester, and Colm Mulcahy will be on sabbatical during the spring. Yewande Olubummo continues to serve as chair of the department.

Katrina Harden Williams, Director of the Mathematics Laboratory, co-led the way in obtaining historical national accreditation for the Mathematics Laboratory and national certification for 27 peer tutors from the National Tutoring Association (NTA). The certification levels range from Level I-Basic to Level II-Advanced (Para-Trainer).

The department will host the National Association of Mathematicians (NAM) Undergraduate MATHFest XVII conference on November 8-10, 2007.

Card Colm, an MAA Online column written by Colm Mulcahy, recently celebrated its third anniversary. Appearing every two months at MAA Online, it explores mathematical card tricks old and new.

Colm Mulcahy and Jeffrey Ehme gave an MAA minicourse, Introduction to the Mathematics of Modern Cryptography, at the combined meetings in New Orleans, January 2007. Because of its popularity, they have been invited to give another MAA minicourse, on the same topic, at the combined meetings in San Diego, January 2008. (Submitted by Jeffrey Ehme)

Tennessee Tech University (Cookeville, TN)

This fall Tommy Elliott joined the TTU Mathematics Department faculty as a tenure-track instructor. Tommy is a graduate of our master's program and taught for us last year in a one-year temporary position.

David Smith has had an outstanding year. In May he was named a recipient of the TTU Outstanding Faculty Teaching Award. During the summer David was promoted to Associate Professor and this fall he was named a TTU Distinguished Faculty Fellow.

Sabine Le Borne spent the 2006-2007 academic year conducting research on H-matrices at the Max Planck Institute in Germany. Sabine has accepted an invitation to attend the research conference "Fast solvers for partial differential equations" at the Mathematical Research Institute Oberwolfach in May 2008.

Rafal Ablamowicz used a non-Instructional Assignment in Spring 2007 to pursue research in Clifford Algebras. In May, Rafal visited SISSA in Trieste, Italy and presented a seminar on "Category Theory in Automata Theory." He also attended the AXIOM workshop of the Research Institute for Symbolic Computation in Austria. In June, Rafal visited a colleague at the Max Planck Institute in Leipzig to work on non-commutative Groebner bases.

Alexander Shibakov was an invited speaker at the Research Institute for Mathematical Sciences at Kyoto University in August. Alexander and Moto Machida discussed the research problems they have been working on.

In August, we learned that our colleague and former faculty member Bill Jones died after a brief illness.

(Submitted by Allan Mills)

Tusculum College (Greeneville TN)

Department of Mathematics chair John Paulling was promoted to full professor in March 2007. Dr. Paulling has been at Tusculum 12 years and previously taught at Wofford College and the University of South Carolina, Upstate

(Submitted by John Paulling)

University of North Alabama (Florence, AL)

Publication--Mrs. Katie Roberson Motlow, Instructor of Mathematics, joined our department this fall. Mrs. Motlow graduated from the University of Alabama in Birmingham in December of 2006.

Distinguished Professor--Mrs. Jean Henderson, Assistant Professor of Mathematics, has been awarded the Elizabeth Gaines Mann Professorship of Mathematics for the 2006 – 2007 academic year. This honor recognizes outstanding teachers in the Department of Mathematics and Computer Science. It includes both a 3-hour course load reduction and a stipend to support scholarly activity. Mrs. Henderson's research interest is in computer science education.

(Submitted by David Muse)

University of the South (Sewanee, TN)

Jennifer Mann, class of '93, now at UT-Austin, will give this year's annual homecoming lecture on DNA knotting, a topic considered in her recently completed Ph.D. thesis at Florida State. Grace Kennedy, class of '06, has collaborated with local faculty to produce a joint paper on probability that will appear in the *Monthly*. The paper grew out of Grace's work with Doug Drinen during the summer following her graduation.

Mac Priestley gave a talk last spring at the Sectional Meeting of the MAA at Georgia Southern. The other two plenary lectures were given by Davidson professor John Swallow, Sewanee class of '89, and Joe Gallian, the new president of the MAA. Joe Gallian will give the annual Ebey lectures here this fall. Ed Burger and Keith Devlin gave the last two Ebey lectures.

Miller Puckette, UC-San Diego, gave a workshop and lecture at Sewanee in October in connection with Stephen Carl's current seminar studying Puckette's 2007 book on Pd, the graphical programming environment for multimedia that he developed. Malcolm Lane of James Madison University spoke more recently about computer technology in developing countries

Lucia Dale and Emily Puckette have returned from sabbatical leaves last year, Chris Parrish is currently on sabbatical, and Doug Drinen will take sabbatical leave this spring. We are delighted to have Mozghan Mirani teaching in their place. Mozghan recently received her doctorate from Vanderbilt. Emily Puckette is our new chair, taking over from Catherine Cavagnaro, who had served in this capacity for five years. Lucia Dale took a student this fall to the Grace Hopper Celebration of Women in Computer Conference in Orlando, FL.

The renovation of Woods Laboratories, in which our department has been located, has forced us to lose permanently several offices and two classrooms, so that we are now working out of several different buildings. We look forward to closer accommodations and a less hectic life when the current work is completed.

(Submitted by William Priestley)

University of North Carolina at Pembroke (Pembroke, NC)

The joint work of Don Beken of University of NC at Pembroke and Ralph DeMarr of the University of NM was presented at the Conference on Rings at the Louisiana State University, April 25- 28,2007. The paper was titled "Strange Inequalities in a Partially Ordered Algebra." Also, their joint work entitled "Matrices with Fibonacci Numbers as Entries " was to be presented at the AMS sectional meeting in Albuquerque, October 13-14, 2007. The paper was withdrawn do to the death of Ralph DeMarr.

Prof. Guo Wei had the following papers accepted for publication: "Characterizing mixing, weak mixing and transitivity of induced hyperspace dynamical." " Topological Entropy of Continuous Functions on Topological Spaces." " Postpartum Depression: Racial Differences and Ethnic Disparities in a Four Racial and Ethnic population."

Prof. Raymond Lee attended the following conferences: Lilly South Conference on College and University Teaching in Greensboro,NC on Feb. 16-18,2007. NC conference on teachers of Mathematics in Greensboro, NC on Oct. 11-12, 2007. U.S. department of Energy Day of Science conference in Knoxville, TN on Oct. 29, 2007.

Prof Hiremath sponsored a student chapter of the MAA.
(Submitted by Don Beken)

University of North Carolina, Wilmington (Wilmington, NC)

Dr. Wei Feng has stepped down as chair of the Department of Mathematics and Statistics, having served in that position from January 2000- June 2007. Dr. Matthew TenHuisen is currently serving as interim chair. Dr. James Blum has been promoted to associate professor. The department hired Dr. Kelli M. Slaten in the spring and Dr. Xiaojie (Stanley) Hou in the fall as assistant professors. Dr. Cuixian (Tracy) Chen and Dr. Brian Cabbage are currently visiting assistant professors.

Dr. Kelli M. Slaten earned her Ph.D. in Mathematics Education from North Carolina State University in 2006. Her dissertation "Effective Teaching and Uses of Instructional Representations in Secondary Geometry: A Comparison of a Novice and an Experienced Mathematics Teacher" won NC State's Graduate School Thesis and Dissertation Award. Dr. Hou received his B.S. and M.S. from Shan-Dong Teacher's University, China. He earned his PhD from The University of Iowa in 2004. His dissertation is titled "Traveling Wave Solutions of One Dimensional Reaction Diffusion Equation."

Dr. Cuixian (Tracy) Chen received a B.A. in Statistics and Probability and a M.A. in Applied Math from Zhongshan University, China and a M.A. in Mathematics and a Ph.D. in Statistics from Binghamton University. Her dissertation is titled "Asymptotic Properties of BJE in Linear Regression Models with Bivariate Mixed Interval-Censored Data." Dr. Brian Cabbage earned his PhD (specializing in point-set topology) at NC after receiving a BS and MS Virginia. The title of his dissertation was, "The Stone-Cech Compactification of the Plane".

Dr. Xin Lu continues as Managing Editor of the Journal Discrete and Continuous Dynamical Systems (Series B). This journal was ranked top 12th among all applied mathematics journals in 2005. Dr. Russell Herman has taken over as Editor-in-Chief of The Journal of Effective Teaching, a peer reviewed electronic journal devoted to the discussion of teaching excellence in colleges and universities.

Dr. Gabriel Lugo and Dr. Russell Herman were the first members of the department inducted into the University's Million Dollar Club, established to recognize researchers surpassing a total of one million dollars in grant support. Dr. Lugo and Dr. Herman have been known for their work in technology in areas such as multimedia instruction, data acquisition, mobile computing and digital libraries. They are connected to iLumina, which is an MAA Math Gateway partner. Dr. Lugo was also a member of the development team for a modeling course for middle and high school teachers. The project was funded by an PIMS-NSF grant.

(Submitted by Russ Herman)

University of South Carolina (Columbia, SC)

Professor Manfred Stoll stepped down as chair on July 1, and Professor Jerry Griggs is serving as interim chair for two years. LeConte, the mathematics building on campus, has been undergoing considerable upgrades many of which have been already completed. Currently underway is a project costing more than 1.4 million dollars to renovate the ductwork and air conditioning systems in LeConte.

Our department was saddened to learn of the death of longtime staff member Leigh Wallace after a long battle with cancer. Fortunately, with the support of the department and others, Leigh was able to take her dream train trip to the far west.

The department's annual High School Math contest was held on December 9, and 25 high schools participated. The winner of the written exam was Harry Richman from Spring Valley High School. Harry is the son of the late David Richman who was a professor here from 1982-1991. The runner up was Jim Manning, who is an undergraduate here this year.

The Palmetto Number Theory Seminar (PANTS) will be held on our campus this December 8-9. The Department of Mathematics and IMI held the Mini-conference on Applied Combinatorics (with an emphasis on search theory) October 15-16.

Visitor Andy Yingst organized and conducted a popular problem-solving seminar to help students prepare for competitions such as the Putnam Exam and the Virginia Tech Exam.

We have fourteen visiting faculty and post docs this year. Diana White, one of our post-docs was selected to give a talk at the AWM workshop: Research Presentations by Recent Ph.D.'s at the Joint Meetings last January. Also visiting is Darren Narayan from RIT; Darren's wife Tammy was a Ph.D. student here in 2001.

Our Chapter of Pi Mu Epsilon continues to be very active under the leadership of professors Matt Boylan, Maria Girardi, and Ronda Sanders. The organization has planned numerous activities and talks throughout the year including an Integration Bee, several games nights, Stocking Stuffing for the Salvation Army, and a Sudoku Championship.

Professor Linyuan Lu published a book, "Complex Graphs and Networks," jointly with Professor Fan Chung in San Diego.

László Székley won the University of South Carolina Russell research Award for Science, Mathematics, and Engineering; this is the university's most prestigious award for research. David Sumner won the Distinguished Teaching Award from the MAA Southeastern Section.

Previous graduate student Carrie Finch won the 2006 Selfridge Prize for Excellence in Mathematical Presentation for her talk at the West Coast Number Theory Conference the previous year. Carrie is now on the faculty of Washington and Lee University.

The Wall Street Journal quoted some work of Mark Kozek from his presentation at the 2007 AMS meeting in New Orleans. Also involved in his project are professors Michael Filaseta and Charles Nicol (emeritus).

Kate Scott was selected as the Best teaching Assistant. Selected as the best first-year graduate students were Ser-wei Fu and Ben Wei, while Luke Owens and Frank Sanacory were selected as the best graduate students.

The Outstanding Student in Mathematics award was presented to Susan Crook. The Outstanding Student in Mathematics Education Award went to John Mowery.

William Kay received the James Bruce Coleman Mathematics Scholarship, Joshua Hendrickson received the Tomas Markham Mathematics Scholarship. The Cary K. Smith, Jr., Mathematics Scholarship went to Gwyn Pauley and the Wyman L. Williams Scholarship went to Christopher Poirel. Andrew Petarca, working with Prof. Joshua Cooper, received the first Laurier Undergraduate Research Scholarship. The recipients of the Jeong S. Yang Award for excellence in Mathematics were Brett

Barwick, Guy Boudreaux, Charles Collins, John Holt, Jennifer Mason, and Stephen Smith.

The Pi Mu Epsilon Award winner was Tyler Ray.

The CAS Rising Senior Mathematics Scholarship was won by Emily Mitchell.
(Submitted by David Sumner)

Wake Forest University (Winston-Salem, NC)

We have two new faculty members: Jennifer Erway and Keir Lockridge. Jennifer is an Assistant Professor, who came to us from the University of California, San Diego, where she received her Ph.D. in 2006. She works in numerical optimization. Keir is a Visiting Assistant Professor, who came to us from Wesleyan University. He received his Ph.D. from the University of Washington, Seattle in 2006, and he works in algebraic topology. Sarah Raynor is on a research leave at the University of Chicago for fall 2007.

Our Gentry Lectures were held October 16 and 17, 2007. Our speaker was Dr. Jeffrey Weeks.

We will host a site of the AMC 10B and 12B contests on February 27, 2008.
(Submitted by Ellen Kirkman)

Western Carolina University (Cullowhee, NC)

The Department of Mathematics and Computer Science at Western Carolina University welcomed several new faculty members at the beginning of this semester. Risto Atanasov finished his Ph.D. in mathematics from SUNY-Binghamton in August 2007. He joins us as an assistant professor of mathematics. Axelle Faughn, a new assistant professor of mathematics education, received her Ph.D. in Mathematics from NCSU in December 2002. After a postdoc in Mathematics Education in Puerto Rico and California before joining us. We have also hired David Blevins, Blake Queen, and Sam Daoud as instructors and Hrishi Goradia as a visiting assistant professor of Computer Science. Mark Holliday is currently serving as our interim department head.

We will be hosting the fourth Smoky Mountain Undergraduate Research Conference on the History of Mathematics on 29 March 2008.
(Submitted by Sloan Despeaux)

Wofford College (Spartanburg, SC)

We are delighted that Angela Shiflet has been elected to serve as the Section Lecturer for the Southeastern Section of the MAA during the 2007-2008 year. Charlotte Knotts-Zides has finished her term as Chair of the Section and will serve a term this year as Past-Chair. Ted Monroe has been appointed as chair of the department. This fall, we welcomed a new colleague, Luke Ingram, to the department; Luke completed his Masters degree at the College of Charleston and is teaching here as a full-time instructor.

Last spring, Neal Smith of Augusta State University gave a presentation on "Partition Statistics and the q-Fibonacci Sequence" during the Guy Jacobsohn Memorial Mathematics Colloquium Series and, in return, Matt Cathey traveled to Augusta State to give a presentation on conformal mappings and medical imaging. During the fall colloquium series, Professor James Kuzmanovich of Wake Forest University gave a delightful talk combining history and mathematics entitled "How the Poles Broke Enigma Prior to World War II".

This summer, Angela Shiflet presented a talk on "Internships and Work Experience in Undergraduate CSE Education Undergraduate" at the International Congress of Industrial and Applied Mathematics in Switzerland; an invited talk, "Reaching Out to Science Students with Computational Science and Modeling," at the AAPT Topical Conference on Computational Physics for Upper-Level Physics Programs; and a poster with George Shiflet on "Introducing Spread-of-Disease Modeling to Introductory Microbiology Students" at the American Society of Microbiologists Conference.

Ryan Hill, a senior mathematics major, participated in the Community of Scholars, a ten-week summer research experience on-campus funded by the Fullerton Foundation. Working with Charlotte Knotts-Zides, his faculty sponsor, Ryan researched an idea he called nearly almost perfect numbers, a variation on perfect numbers. In addition to a paper he has already written, Ryan plans to present his research at the Spring MAA-SE conference.

Another math major, Stephen Strickland, participated in a summer internship at the Jet Propulsion Laboratory, where he worked on "An Examination of Martian Topographical Dichotomy Using SHARAD Data and an Analysis of Martian Gullies for Future Campaigns."

Four mathematics graduates have enrolled in graduate work in mathematics: Jennifer Aust at the University of Tennessee, Chris Gillam at Clemson University, Ben Ingram at the University of South Carolina, and Caroline Turnage at Wake Forest University.

(Submitted by Charlotte Knotts-Zides)

Check out the Section's Webpage
<http://www.maa.org/southeastern>.

Send comments or suggestions to

Jeff Clark, Elon University
clarkj@elon.edu.



**Eighty-seventh Annual Meeting
Mathematical Association of America, Southeastern Section
The Citadel**

Friday-Saturday, March 28-29, 2008

Meeting Announcement: The eighty-seventh annual meeting of the Southeastern Section of the Mathematical Association of America will be held on Friday and Saturday, March 28-29, 2008 at the Citadel in Charleston, South Carolina. The Association invites all interested persons to participate and asks that department chairpersons, faculty, and members of the Section help in publicizing the meeting. Attendees may pre-register by completing the printed form in this newsletter and sending payment to the Citadel's Mathematics department at the address below or online registration is available at http://macs.citadel.edu/chenm/MAA-SE/webpage_08.htm. On-site registration will also be available. Pre-registration for short courses is made through the section Secretary, Jon Harris (john.harris@furman.edu), using the form in this newsletter. Up-to-date information about the conference (program registration, accommodations, transportation, etc.) is maintained at the conference web site (http://macs.citadel.edu/chenm/MAA-SE/webpage_08.htm), which is accessible through the Section web site <http://www.maa.org/southeastern>.

General Sessions: There will be three general session speakers on Friday and Saturday:

- **George Andrews**, Pólya Lecturer, The Pennsylvania State University
- **Angela Shiflet**, Section Lecturer, Wofford College
- **David Sumner**, 2007 Section Teacher of the Year, University of South Carolina

Call for Contributed Papers: The officers of the Section invite and encourage submission of titles and abstracts for fifteen-minute (20 minutes between the start of one talk to the start of the next) contributed papers in all areas of mathematics by college and university faculty, graduate students, undergraduates, and others. **Titles and abstracts** should be sent to the Program Chairperson (Jim Vandergriff, vandergriffj@apsu.edu) before **Friday, February 15, 2008** in order for the abstract and title to appear in the printed program of the meeting. It will be very helpful if individuals send this information in advance of this deadline. Talks will be organized into concurrent sessions, to the extent possible, by the general mathematical area indicated by the abstract. There will also be organizers of sessions for selected mathematical areas:

- *Mathematics in the First Two Years*, John Lng (Midlands Technical College)
- *Connecting Math to the Liberal Arts*, Sharon Sullivan (Catawba College)

- *Enhancing Student Engagement in the Undergraduate Mathematics Classroom*, Catherine Aust (Clayton State University)
- *Innovative Ideas for Teaching Concepts in an Introductory Statistics Class*, Pat Humphrey (Georgia Southern University)
- *Technology in College Geometry*, Subhash C. Saxena (Coastal Carolina University)
- *Combinatorial Mathematics*, Spencer Hurd (The Citadel)
- *Undergraduate Papers*, Luis Cueva-Parra (Auburn University at Montgomery, Luis.Cueva-Parra@mail.aum.edu)

These individuals will be soliciting papers as well as working with contributors.

Guidelines for Titles and Abstracts: Abstracts are expected to deal with theory, application, teaching, history, or philosophy of mathematical sciences; they should indicate what the presenter intends to communicate in the allotted time. For multiple authors, the presenting author's name should be clearly designated; please identify undergraduate and graduate student authors. The use of special symbols should be made judiciously.

Poster Session: Students are encouraged to present research and results of special projects in poster format. The session is scheduled for Saturday morning, concurrent with contributed talks. Please send abstracts or questions to Sarah Mason (Davidson College, samason@davidson.edu) or Catherine Matos (Clayton State, CatherineMatos@mail.clayton.edu) by **Friday February 15, 2008** to ensure that an easel will be available for your poster.

Short Courses:

- *Mathematics and Social Justice*, Andy Miller (Belmont University)
- *Prime Numbers: Finding and Applying Them*, Jeffrey Ehme (Spelman College)
- *Active Learning Strategies for the College Liberal Arts Mathematics Course*, David Cochener and Nell Rayburn (Austin Peay State University)
- *Engaging Students in Advanced Analysis via Fractal Geometry and the Hausdorff metric*, Doug Burkholder (Lenoir-Rhyne College)
- *A Short Course in Information Retrieval*, Amy Langville, Emmiline Douglas, Athryn Pedings, Shaina Race, and Anjela Govan (College of Charleston)

A fuller description of the short courses, including abstracts, is given at the end of this announcement as well as on the conference web site.

Math Jeopardy Contest: Teams of three or four undergraduates will compete in a mathematical version of the well-known answer-and-question game. Competition is limited to the first twelve schools that register. Topics will include calculus (single and multi-variable), linear algebra, differential equations, and discrete mathematics. The preliminary rounds for Math Jeopardy will be scheduled on Friday morning from 8:0-

12:00. To register a team or to find out more, contact John Harris (john.harris@furman.edu) or Mike Mossinghoff (mimossinghoff@davidson.edu).

Project Next-SE: Project NExT-SE (New Experiences in Teaching) is the Southeastern MAA Section's version of the national program for new and recent PhD's in mathematical sciences interested in improving the learning and teaching of undergraduate mathematics. Activities on Thursday afternoon are planned as well as sessions on Friday morning. Contact Martha Allen (Martha.allen@gcsu.edu), Patrick Bahls (pbahls@unca.edu), or Karen O'Hara (kohara@highpoint.edu)

Treasure Hunt: On Thursday evening (March 27), there will be a Mathematics Treasure Hunt for students and their advisors. Students will use mathematics to solve clues and look for a "treasure." This is a fun, non-competitive event that will give students an opportunity to meet and work with students from other colleges and universities. It is also greatly appreciated if math club advisors would be willing to help at this event. If you have any questions or would like to volunteer to help, please contact Julie Barnes (jbarnes@email.wcu.edu). We will be meeting in the lobby of Thompsonb Hall. Check-in is between 7:00 and 7:30 PM with the event starting at 7:30 PM.

Graduate School and Career Fair: In this venue, students considering graduate school in mathematical sciences have opportunities to meet with representatives of various graduate programs. Representatives of graduate programs should contact Mei-Qin Chen (mei.chen@citadel.edu) to register their participation (\$25 fee payable to The Citadel).

Chairpersons' Meeting and Liaisons' Luncheon: The Chairpersons' meeting, scheduled for 10:30-12:00 on Saturday, is an opportunity for discussion of issues confronting the departments. Martha Abell (martha@georgiasouthern.edu) will convene the Chairpersons. MAA Liaisons will meet from 11:30-12:30 on Friday, convened by Secion Governor Ellen Kirkman (kirkman@wfu.edu). A buffet lunch will be provided for those liaisons attending. Please e-mail Mei-Qin Chen (mei.chen@citadel.edu) by march 9 if you are planning on attending.

Exhibits: On Friday afternoon and Saturday morning, representatives of publishing companies and other vendors will have exhibits.

Social Event: The site coordination committee at The Citadel is planning a **reception** on Friday afternoon followed by a banquet and a talk entitled *Fear of Refrigerators: Some Mathematical Characters, Crackpots and Crazies* by Charles Groetsch of the Citadel at the Citadel Beach House. Details will follow in subsequent communications.

(Pre-)Registration: Pre-registration for the meeting is encouraged; on-site registration will also be available. Online registration is available through the conference web site. This is the preferred method of pre-registration. Alternatively, complete the attached form and enclose a check payable to MAA-SE for the appropriate amount to

Attn: Mei-Qin Chen
Department of Mathematics and Computer Science
The Citadel
171 Moultrie Street
Charleston, SC 29409

| Fees | Pre-registered | After 10 March |
|--|-----------------------|-----------------------|
| Faculty meeting registration | \$25 | \$30 |
| College/university students, emeritus faculty | \$10 | \$15 |
| SOCAMATYC(1 of above must be included) | \$5 | \$5 |
| High school teachers | \$15 | \$20 |
| High school students | free | free |
| Conference Dinner | \$18 each | |

Participants in the short courses should pre-register; use the enclosed form and send it to ohn Harris, Secretary/Treasurer, MAA-SE, at the address shown on the form.

Hotel Information: For more current hotel information, please check out the information posted at http://macs.citadel.edu/chenm/MAA-SE/MAASE_hotels.htm . Participants should make their own arrangements directly with a hotel of their choice. Blocks of rooms have been reserved Thursday, Friday and Saturday, March 27-29 at the following hotels. Please cite the group name MAA-SE when making a reservation. All rates are subject to sales tax.

- **Best Western** 100 Rooms, \$109.99/night and \$144.99/night/executive, (888)377-2121, (843)722-4000, guaranteed before Wednesday, February 27, 2008.
- **Comfort Inn-Charleston** 100 Rooms, \$109/night, (843)577-2224, guaranteed before Tuesday, February 26, 2008.
- **Holiday Inn-Riverview** 50 rooms, \$89.99/night Thursday, \$120/night Friday-Saturday, (800)766-4451, (843)556-7100, guaranteed before Wednesday, February 27, 2008.
- **Other area hotels**
 - Courtyard-Marriot
 - Marriot
 - Days Inn
 - Hampton Inn
 - Best Western at 1540, Savannah Highway
 - Sleep Inn at 1524 Savannah Highway

Transportation and Directions

The conference will take place at The Citadel, located in historic Charleston, SC. There are four basic ways to get to Charleston; one on I-26, two on US 17 (northbound and southbound), and from the airport. All of the information can be found at <http://www.citadel.edu/r3/about/map/index.shtml>

If you wish to go to your motel first, please note that the northbound US 17 route passes all the motels on US17 and Lockwood Drive. If you are heading southbound US 17 then Lockwood Drive is one block past Hagood. If you are coming in on I-26 and wish to go to your motel first, take the interstate until it ends and then take the exit for US 17 South.

Updates: Updates to this announcement and ultimately a tentative schedule of talks will appear on the conference web page, which is accessible through the section web page.

Contact Information:

Name: _____
(First and Last name as you wish it to appear on conference badge.)

School Affiliation: _____ **State:** _____

Phone: _____ **Email Address:** _____

Please Check all that apply to you

Undergraduate Student

Graduate Student

Business/Industry/Government

High School Teacher

Are you an MAA Member? Yes No Are you under the age of 21? Yes No

Faculty member at a college or university-check the highest Math degree offered

Associate

Bachelor

Masters

Doctorate

Conference Fees:

Please complete the following and total the amount of fees for your registration:

| <u>Meeting Registration Fees</u> | <u>Up to 10 March</u> | <u>After 10 March</u> | <u>Amount</u> |
|---|--|------------------------------|----------------------|
| College/University faculty | \$25 | \$30 | _____ |
| College/university students, emeritus faculty | \$10 | \$15 | _____ |
| SOCAMATYC (1 of above must be included) | \$5 | \$5 | _____ |
| High school teacher | \$15 | \$20 | _____ |
| High school student | free | free | _____ |
| Conference Dinner (# attending _____) | x \$18 each | | _____ |
| | If under age 21, please check here _____ | | _____ |

Total Fees \$ _____

Please include a check payable to **MAA-SE** for the **Total Fees** along with the registration form and mail to

MAA-SE Annual Meeting, Attn: Mei-Qin Chen
Department of Mathematics and Computer Science
The Citadel
171 Moultrie Street
Charleston, SC 29409

If you have questions, please contact: 843-953-7896 (voice) or email maase08@citadel.edu

Notes:

- ❖ For housing and more detailed information about the conference, The Citadel, or the Charleston area, please visit the conference website at:
http://macs.citadel.edu/chenm/MAA-SE/webpage_08.htm
- ❖ You may register for a SHORT COURSE by completing a separate form. Please check the Section newsletter or the conference website.
- ❖ For information about Project NexT sessions, contact Martha Allen (martha.allen@gcu.edu), Karen O'Hara (kohara@highpoint.edu), Patrick Bahls (pbahls@unca.edu), or Ron Taylor (rtaylor@berry.edu)

MAA-SE Short Course Registration

A printable version of this form is available on the meeting website,
http://macs.citadel.edu/chenm/MAA-SE/webpage_08.htm

Name: _____

Address _____

School Affiliation _____

E-mail _____

Phone _____

Indicate your preference of course by checking the appropriate line; if you have more than one choice, indicate your first choice as 1, your second as 2, etc.

_____ *Mathematics and Social Justice*, Andy Miller (Belmont University)

_____ *Prime Numbers: Finding and Applying Them*, Jeffrey Ehme (Spelman College)

_____ *Active Learning Strategies for the College Liberal Arts Mathematics Course*,
David Cochener and Nell Rayburn (Austin Peay State University)

_____ *Engaging Students in Advanced Analysis via Fractal Geometry and the Hausdorff
metric*, Doug Burkholder (Lenoir-Rhyne College)

_____ *A Short Course in Information Retrieval*, Amy Langville, Emmeline Douglas,
Kathryn Pendings, Shaina Race, and Anjela Govan (College of Charleston)

Mail this completed form with a check **payable to the MAA** in the amount of \$25.00 (non-refundable) before **March 10, 2008** (\$30 after March 10 and on-site registration) to the Secretary-Treasurer:

John Harris, Secretary/Treasurer, MAA-SE
Department of Mathematics
Furman University
Greenville, SC 29613
John.harris@furman.edu
(864)294-3638

Short Courses
MAA Southeastern Section
87th Meeting
The Citadel

There are five short courses, and these run from 8:30 to 11:30 on Friday. Pre-registration for these courses should be made through John Harris by Monday, March 10, 2008. An insufficient number of pre-registrations could lead to cancellation of one of these courses; on-site registration may be possible, subject to availability of spaces.

Mathematics and social Justice, Andy Miller (Belmont University)

Mathematicians are well aware of the wide variety of applications of interesting mathematics to real-world problems. One of our challenges as educators is to effectively communicate the power of mathematics to students, many of whom have little interest in mathematics beyond its ability to meet a graduation requirement. Many applications are either artificial (“Train A approaches Train B...”) or use tools that are beyond the scope of a general education course. Attempting to bridge this gap, a group of mathematicians have been developing course materials for use in entry-level and general education courses that teach mathematics through social justice applications. Intriguing, accessible mathematics can be applied to understand and attempt to remedy compelling social issues. In this short course, we will examine some of these materials and discuss how I and others have used them in class. Attendees will also be invited to join the community working on these materials.

Prime Numbers: Finding and Applying Them, Jeffrey Ehme (Spelman College)

Since the advent of public key cryptography, the prime numbers and their properties have been an active area of interest. We begin this short course by reviewing some cryptosystems that require large prime numbers. Then for the remainder of the course, we consider different types of approaches to finding large prime numbers. Mathematicians would prefer methods that yield numbers that are unambiguously prime, but these deterministic methods are slow. Probabilistic methods are fast and yield “industrial grade” prime numbers. That is, numbers that are extremely likely to be prime and will work in the context where they are used, but we can’t be sure if they are really primes. Examples of the latter methods include the Miller-Rabin test and a test involving Lucas sequences. No previous experience with these topics is assumed.

Active Learning Strategies for the College Liberal Arts Mathematics Course, David Cochener and Nell Rayburn (Austin Peay State University)

We will model the active learning instructional strategies which we employ in our “liberal arts mathematics” course at Austin Peay State University. Each semester the course consists of the instructor’s choice of two modules. Currently available modules are mathematics of politics, sound and music, cryptanalysis, and art. Each of the modules is organized around the application, and the relevant mathematics is studied as it naturally

arises. Some of the mathematical concepts which are involved are modeling, geometry (similarity, scale, isometries, projections), elementary group theory, impossibility theorems, trigonometric and logarithmic functions, and problem solving strategies.

Engaging Students in Advanced Analysis via Fractal Geometry and the Hausdorff metric,
Doug Burkholder (Lenoir-Rhyne College)

We shall call the space of all compact subset of R^2 the *Space of Fractals*. By studying this space, participants will see an interesting example of, and hence reinforce their understanding of, metrics, compactness, the triangle inequality, Cauchy sequences, and complete metric spaces. Participants will also see how the fixed-point theorem applied to our space guarantees a unique attractor for any iterated function system. Participants will see how to use this knowledge to supplement an Advanced Analysis course. No prior experience with the Space of Fractals or the Hausdorff Metric is required.

A Short Course in Information Retrieval, Amy Langville, Emmiline Douglas, Kathryn Pedings, Shaina Race, and Anjela Govan (College of Charleston)

Topics in both traditional and web information retrieval, including query processing, ranking, link analysis, and clustering, will be covered during this course. Mathematical concepts such as the vector space model, the singular value decomposition, and the nonnegative matrix factorization will be presented. Popular algorithms such as Google's PageRank and Ask.com's HITS will be discussed. Examples and hands-on tools will be emphasized throughout. Also, a list of introductory and advanced references will be supplied.

Check out the Section's Webpage
<http://www.maa.org/southeastern>.

Send comments or suggestions to

Jeff Clark, Elon University
clarkj@elon.edu.

MAA Southeastern Section Committees for 2006 – 2007

| | |
|---------------------------------|---|
| Newsletter: | Karen O'Hara |
| Section Teaching Award: | David Stone (Chair) Mac Priestly State Directors David Sumner |
| Section Service Award: | Theresa Early (Chair) Sylvia Bozeman Jeff Dodd Joel Brawley Hugh Haynsworth Gary Hall Stephen Davis |
| Nominations: | Ray Collings (Chair) Wanda Patterson Walt Patterson Bernie Mullins Andrew Hetzel |
| Site Selection: | Jennifer Hontz (Chair) Narendra Govil Pat Humphrey |
| Organizer – The Citadel: | Mei Chen |
| Committee: | Jenny Langdon (Chair) John Harris (ex-officio) David Stone Barbara Tankersley |



Southeastern Section MAA Website
<http://www.maa.org.edu/southeastern>