

Department of Mathematics and Computer Science Newsletter



An In-House Publication for Faculty and Staff in Georgia Southern's Department of Mathematics and Computer Science

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Editor: Mary Margaret Hoy

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Announcements

Georgia Southern University will host a Teachers Teaching with Technology Summer Institute "Calculus with Calculator and Computer Enhancement" to be held the week of June 23-27. If you know of anyone who is interested in participating, contact **Lisa Yocco** for information and a registration form.

Professional Activities

Martha Abell and **Jim Braselton** presented "Technology and Applications" at the Annual Southeastern MAA Section Meeting, Spelman College, Atlanta, GA, on March 14, 1997.

Martha Abell and **Lisa Norton** reported on Lisa's Masters Research Project, "The Optimization of the Long Jump", at the Annual

Southeastern MAA Section Meeting, Spelman College, Atlanta, GA, on March 14, 1997. Stuart Davidson was a co-author of the paper.

Ahmed Barbour was invited by the Air Force at Rome Laboratory to represent GSU in the first meeting of the 21st Century Engineering Consortium at Syracuse University held April 23-24, 1997. Working with DARPA's Information Technology Office (ITO), Rome Laboratory invited selected representatives from different universities working in the field of Formal Verification to establish the Consortium. The reason is to develop the engineering capability necessary to build highly assured systems. This means that DARPA and the Air Force would like to see a larger (much larger) number of students trained in engineering and computer science using Formal Methods (Examples: Hardware

Verification, Software Verification, Requirements/specifications Analysis, as well as applying this technology to other problem domains). The meeting was very successful and the group decided to meet again in May to formalize the final recommendations. These recommendations have long and short term goals to promote formal methods in our educational system. These kinds of activities will put our department on the cutting edge of integrating new technology and/or research into our undergraduate and/or graduate curriculums.

Ahmed Barbour and Mike Nassif (from Rome Laboratory) have had a paper titled: "Hardware Formal Verification Using Larch/VHDL," accepted for the 1997 Summer Computer Simulation Conference, July 13-17, 1997, in Arlington, Virginia.

Ahmed Barbour and **Luke**

Olszewski submitted a proposal to the NSF program: CISE Educational Innovation Program, Integrating Research Results Into Undergraduate Courses and Curricula, titled: "An Introductory Course in Formal Verification," seeking funding to establish an undergraduate course with a laboratory to teach students and train faculty members to use Formal Methods to write formal specification and prove its correctness using Theorem Provers.

Sharon Barrs co-wrote (with Ben Zellner in the Physics Department) a grant which received \$18,000 to renovate MPP 3001. Money was allotted to purchase a Macintosh computer, an IBM-compatible computer, an Elmo and a projection unit. The lecture hall will be setup as a multi-media classroom similar to the biology lecture hall.

Sharon Barrs and **Jim Vargo** presented "Teaming Together Youths, Teachers, and Their Community" at the Eighth Annual Youth-At-Risk Conference held in Savannah, GA, on March 4, 1997.

Sharon Barrs and **Jim Vargo** presented "Wetlands Wonders Project - Part I" at the Southeastern Section Meeting of the Mathematical Association of America in Atlanta, GA, on March 14, 1997.

Don Brown and **Janet O'Brien** attended the National Association for Developmental Education (NADE) Conference held in Denver on March 4 - 8. While at the conference Don and Janet "shadowed" the NADE '97 Program Co-Chairs. This "shadowing" was very important since Janet, Don, and Curtis Ricker will be the Program Co-Chairs of the

NADE '98 Conference in Atlanta next year.

Jane Cason and **Lisa Yocco** conducted "Enhancing Algebra with the TI-82," a 2-day workshop for secondary teachers of mathematics in Bulloch County at the First District RESA March 4 and March 11, 1997. The workshop was well-attended and is scheduled for a second round on April 7 and 14.

Debbie Evans, **Cynthia Sikes** and **Debbie Stapleton** attended the Southeastern Section Meeting of the Mathematical Association of America in Atlanta held March 13-15. They presented "Wetland Wonders II."

Ellen Fischer attended a NSF funded workshop called STATS (Statistical Thinking with Active Teaching Strategies) in Gainesville, GA on March 8. This workshop centered on using various hands-on activities in the classroom.

Ellen Fischer and **Bill Meisel** presented "Perils and Pleasures of Using Graphing Calculators in Teaching Introductory Statistics I and II" (respectively) at the MAA conference in Atlanta, GA, on March 15. They felt the talks went well and want to thank the other faculty members from GSU that attended and gave moral support.

Dale Gibson attended the sectional MAA meeting in Atlanta and presented a talk entitled "An Algebraic Analysis of a Magic Trick."

Xiezhang Li attended the international conference, "Mathematics Today and Tomorrow"

in Orlando, FL on March 13-15, 1997. He gave a presentation entitled "A Formula for the Isolated Asymptotic Spectra of Quasi-Toeplitz Matrices with Bandwidth Five."

Donna Saye attended the Mathematical Association of America Southeastern Section Conference in Atlanta held March 13-15.

Jimmy Solomon has been appointed to a task force of nine mathematicians from across the U.S. to review the "Guidelines for Programs and Departments in the Mathematical Sciences." The task force is charged with reviewing the 1993 "Guidelines" and making any revisions. A revised document would be presented to the Board of Governors for its discussion and approval. Any member of the department who may have suggestions for changing the guidelines should contact Jimmy Solomon.

Chong-wei Xu (with Dan Van Valin) published a paper, entitled "NTalk—A Multi-Way Interactive Communication Tool", in *Proceedings of the International Conference on Computers and Their Applications (CATA-97)*, Tempe, Arizona, March 13-15, 1997, pp. 218-221.

Lisa Yocco presented "TIPS in Developmental Mathematics: Techniques for Improving Performance and Success" at the National Council of Teachers of Mathematics Southern Regional Conference in Atlanta, GA, on March 1, 1997.

Lisa Yocco presented “Competition in the Telecommunications Industry: An Illustration of Markov Chains” at the Southeastern Section of the Mathematical Association of America 76th Annual Meeting in Atlanta, GA, on March 14, 1997.

Lisa Yocco held a “Math 152 Final Exam Review” through the Tutorial Center Workshop Series on March 17, 1997.

of College Algebra (1997/Brooks/Cole)

We welcome your input during the examination process. Copies of the texts will be available in Building 806, MPP Building, and the Forest Drive Building. The committee needs any comments or recommendations by Friday, April 18. Comments should be sent to Cynthia Sikes, P.O. Box 8121.

of the MAA in Atlanta, GA, on March 14.

Departmental Committee Reports

Teaching Using Technology Committee

Submitted by **Martha Abell**

During Spring Quarter 1997, the Teaching Using Technology Committee will sponsor a series of workshops/presentations on the innovative use of technology in the undergraduate mathematics classroom. Members of the department interested in giving a presentation should contact Martha Abell.

Math 151 Committee

Submitted by **Cynthia Sikes**

The Math 151 Committee is in the process of selecting a textbook for next year. Our search has been narrowed to the following three textbooks:

- Aufmann/Barker/Nation - *College Algebra* (1997/Houghton Mifflin)
- Lial/Hornsby/Schneider - *College Algebra* (1997/Addison Wesley)
- Swokowski/Cole - *Fundamentals*

Search Committee

Submitted by **John Rafter**

The search committee has arranged campus interviews for the following external candidates. Please make every effort to make them feel welcome, to meet and talk with them, and to attend their presentations.

Each visitor will have a host from the search committee who may ask for your help. Please do what you can. The host will also be responsible for circulating the candidate’s itinerary.

- Larry Ries Monday, April 7
- Scott Street Tuesday, April 8
- Patricia (Pat) Humphrey, Friday, April 11
- Dan Coroian, Wednesday and Thursday, April 16 and 17
- Ken Senior, Friday, April 18
- Gail Mackin, Friday April 25

MAA Student Chapter News

Submitted by **Martha Abell, Jim Braselton, and Lisa Norton**

The chapter received a travel grant in the amount of \$80 from the MAA for students to attend the Career Fair at the Southeastern Section Meeting

Problem of the Month


Submitted by **Bill Meisel**

Factor $x^5 + x + 1$ using only integer coefficients.


Personal News

Gina Gibson, **Dale Gibson’s** daughter, has been selected to be a member of the math team for Julia P. Bryant School. The team is busy preparing for the middle school tournament to be held on April 12.

Carol Nessmith’s oldest son, Ben was accepted for this Fall Semester to the Kansas State Veterinary School. He and Allyson will return to Manhattan, KS in August for 4 more years. They have been in Elkhart, KS, for this past year. Ben has served as Research Coordinator for Seaboard Farms. Allyson has been a legal secretary and says she loves not having papers to grade nor lesson plans to complete.



April Birthdays



Patricia Hale	01
Deloris Hodges	09
Rosalyn Wells	22
Goran Lesaja	28
Wendy Habegger	29

Happy Birthday!



Happy
Birthday!



December Birthdays

Jim Braselton	01
Autrey Moore	06
Ellen Fischer	09
Rick Hathaway	11
Lori M. Braselton	16
Janet O'Brien	18
Sharon Barrs	21
Lila Roberts	21
Debbie Evans	24
Mary Sikes	25
Eric Funasaki	31

January Birthdays

Cynthia Sikes	13
Norman Wells	22



Happy
Birthday!

