

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

Lila Roberts has been asked to serve on a college committee chaired by Denise Battles to examine internship and student research supervision activities as they relate to faculty workload. If anyone has suggestions, concerns, etc. that relate to these areas, please pass them on to Lila.

When updating the database used for Math Tournament, **Sharon Barrs** downloaded from the web the alphabetical listing of Georgia public schools as well as the listing of Georgia Independent School Association members. These address lists are in a notebook in the Building 806 office. If anyone would like mailing labels printed for schools in our area, please contact Sharon Barrs.

On Monday, April 6, 1998, Wayne Davis (Higher Ed Rep) of Apple Computer will visit GSU. A formal presentation will be made from 12:00-1:30 in room 2070 of the Russell Union. Some of the newest Apple technologies including the G3 Power Macintosh line, Operating System 8.1 — What future Windows OS might look like, Quicktime 3.0, Quicktime VR, and Virtual Reality Authoring Studio will be demonstrated. Drop-in sessions are scheduled prior to and following this presentation at the Center for Excellence in Teaching (9:00-11:30 in CET, Room 107 and 2:30-4:30 in CET, Room 108). If you want to pose questions or suggest topics to be addressed please submit your ideas to Wayne via E-mail at wdavis@hied.com. On campus, contact Steve Bonham at sbonham@gsvms2.cc.gasou.edu.

Attention new faculty members! There are three workshops on schedule designed especially for you: "Writing Across the Curriculum: Dealing with Assignments - Before and After" on April 15 at 4:00; "Using Gender Neutral Language" on April 29 at 4:00; and "Students with Disabilities: Assisting and Making Reasonable Accommodations" on May 19 at 4:00. Call the CET (0049) to reserve a spot.

The Department has recently received a new RISO for the Math/CSC Office and a new Color LCD Projection Panel. These items were purchased with special funds allocated by Dean Solomon.

Professional Activities

Martha Abell was recently elected President of the Southeastern Atlantic Section of the Society of Industrial and Applied Mathematics (SIAM-SEAS). Former colleague Stuart Davidson was elected Secretary/Treasurer (President-Elect). Anyone interested in joining the section, contact Martha at abell@math.gatech.edu.

Sharon Barrs presented “A Quadratic Model Using the Calculator-Based Laboratory System” in the special session on Real Life Applications at the MAA Southeastern Section Meeting in Charleston, SC, on March 13.

Sharon Barrs and **Cindy Gonzalez** attended the Fourth Annual GSAMS Programming and Training Conference in Athens, GA, held March 9-10, 1998. They attended sessions which demonstrated equipment, software and teaching strategies for delivering on-line courses in the distance learning environment.

Lydia Bragg and **Jane Cason** presented “Making Sense of Algebra Using the TI-83” at the National Association of Developmental Education Conference in Atlanta, GA, on March 6, 1998.

Jane Cason presented “Real-World Math with the CBL and CBR Systems” at the 10th International Teachers Teaching with Technology Conference in Nashville, TN, on March 15, 1998.

Joy Darley, **Debbie Evans**, **Dale Gibson**, and **Debbie Stapleton**

attended the 22nd Annual Conference of the National Association of Developmental Education in Atlanta, GA, on March 4-5, 1998. Joy, Debbie, Dale, and Debbie each presided over a session at the conference and Debbie and Debbie presented “Math Models with TI-83”. Thanks to Dale for presiding at this session and for acting as a bouncer!

Debbie Evans, **Cynthia Sikes**, and **Debbie Stapleton** attended the 77th Annual Meeting of the Southeastern Section of the Mathematical Association of America at the College of Charleston in Charleston, SC, on March 13-14, 1998. They presented “Music in Testing”.

Ellen Fischer attended “Building Strong Connections,” the educational equity workshop part of the American Association of University Women of Tennessee’s State Convention, March 13-15, 1998, in Knoxville, TN. Her invited speech was “InGEAR in Action – The Stilson School Project.”

Cindy Gonzalez attended the 10th International Teachers Teaching with Technology Conference in Nashville, TN, held March 12-15, 1998. She attended sessions and presented the paper “New ways to test: Letting calculus students use a graphing calculator on a test of graphing skills.”

Mary Margaret Hoy presented “A Linear Model Using the Calculator-Based Laboratory System” in the special session on Real Life Applications at the 77th Annual

Meeting of the Southeastern Section of the Mathematical Association of America held at the College of Charleston in Charleston, SC, on March 13-14, 1998.

Gail Mackin attended the MAA Meeting in Charleston, SC, and presented a talk in the differential equation session entitled “A Comparison of Two Order-Parameter Models of Solid-Solid Phase Transitions”.

Bruce McLean, **Lisa Norton**, **Donna Saye**, and **Arthur Sparks** attended the 77th Annual Meeting of the Southeastern Section of the Mathematical Association of America at the College of Charleston in Charleston, SC, on March 13-14, 1998.

Lila Roberts made a presentation “ATLAST: Lesson Plans for Linear Algebra” at the MAA-Southeast section meeting in Charleston. This presentation was part of the ATLAST (Augment the Teaching of Linear Algebra through the use of Software Tools) special session which she organized.

Lila Roberts was awarded a Faculty Development Summer Sabbatical for Summer 1998.

Lila Roberts has been invited to serve as discussion leader for the Leadership Development Seminar on April 24-25 at Jekyll Island. This seminar is sponsored by the University System of Georgia graduate institutions. The purpose of the seminar is to promote minority recruitment to graduate study. Lila’s

role will be to answer questions regarding opportunities in Mathematics and Math areas and promote graduate study in the area.

Arthur Sparks received an equipment grant from Texas Instruments, Inc. The equipment includes 4 Graph Links, 36 TI-83 graphing calculators, 7 TI-83 Viewscreen Packages, and 5 CBL units (Calculator Based Laboratory). The equipment is valued at \$9,300.00. Arthur has already submitted another grant proposal (primarily for TI-83 Viewscreen Packages).

Arthur Sparks has submitted another proposal for equipment to be funded by the new Technology Fee.

Scott Street presented "Barnacles and B-Splines: A Statistical Approach to Modeling Environmental Processes" as an invited speaker for the Undergraduate Colloquia Series in Mathematics at High Point University in North Carolina on March 23, 1998.

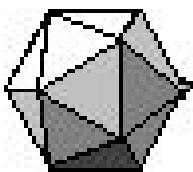
Sharon Taylor presented a workshop titled "Balancing Concepts and Technology" at the Teachers Teaching with Technology National Meeting in Nashville on March 13, 1998.

Pam Watkins attended the National Association for Developmental Education Conference in Atlanta, GA, on March 4-6. Her trip was funded by a \$320 Travel Grant through the Faculty Development Committee.

Teaching with Technology Committee Update

Submitted by **Sharon Barrs**

Please mark your calendars.... John Diehl of Texas Instruments will present an overview of the TI-83 calculator on Wednesday, April 8, from 4:00-6:00 PM in MPP 3001. In addition, John will be available on Thursday, April 9 for small group sessions or special topic sessions in the Physics Conference room. More details will be e-mailed to the department as the schedule is finalized.



MAA Student Chapter News

Submitted by **Jim Braselton, Lisa Norton and Sharon Taylor**

MAA members **Dessa Overstreet, Thomas Park** and **Angel Rowe** attended the Southeastern Section Meeting of the Mathematical Association of America in Charleston, SC, on March 13-14, 1998. Thomas Park presented a paper entitled "Modeling Disease Spread with Dynamical Systems."

The MAA Student Chapter has been awarded a grant from the Southeastern Section of the MAA to recognize Mathematics Awareness Week. Be on the lookout for more details coming soon!

Faculty Senate News

Submitted by **Pam Watkins**

Dr. Henry mailed a copy of a draft of the proposed Academic Misconduct Policy that the Senate will be considering at the next meeting. PLEASE take the time to read this important document and provide feedback to Pam Watkins so that any problems or issues can be addressed before a final vote is taken.

Personal News

Rose Mae Bogan's son, Lee Berger, the paleoanthropologist who won the \$100,000 award from National Geographic, will be speaking at GSU on April 7 in the Continuing Ed Auditorium at 7:00. If any of you are interested in hearing of his new discoveries, Rose Mae would be delighted for you to attend.

Mary Sikes wrote a quick note from Bangkok to say she is having a wonderful time!



Happy Birthday!



April Birthdays

Meredith Tomlinson	07
Rosalyn Wells	22
Richard Grayson	28
Goran Lesaja	28
Wendy Habegger	29

March Problem of the Month

Submitted by **Bill Meisel**

Find all ordered triples (x, y, z) that are solutions to the following system:

$$\begin{aligned}y^2 + z^2 - x &= 1 \\z^2 + x^2 - y &= 1 \\x^2 + y^2 - z &= 1\end{aligned}$$

Answer: $(-1, 0, 0)$, $(0, -1, 0)$, $(0, 0, -1)$, $(1, 1, 1)$, $(-\frac{1}{2}, -\frac{1}{2}, -\frac{1}{2})$

April Problem of the Month

Submitted by **Bill Meisel**

G. H. Hardy proved that the largest prime factor of any integer N was given by

$\theta(N) = \lim_{r \rightarrow \infty} \lim_{m \rightarrow \infty} \lim_{n \rightarrow \infty} \sum_{v=0}^m \left[1 - \left(\cos \left\{ (v!)^r \pi / N \right\} \right)^{2n} \right]$. Your job is to explain how any formula that looks like

this can possibly yield an integer, let alone the largest prime factor of N . Extra Credit: What was Hardy's big secret?

