Chair's Letter

During my run this morning, I could not help but notice that the Azaleas are in full bloom, a vivid reminder that spring is here. This is the season of new life, a time of hope. I am reminded that we, as a department, although we have a way to go, have made much more progress in the last three years than some thought would occur. We should be very hopeful as a Department. We have added three great new faculty members with at least one new statistician to join us in Fall, 2005. If we get approval soon, we will have a second faculty member. We now have at least 55 mathematics majors and, I must say they are a pretty good bunch. Our faculty members are doing very well publishing in journals with international reputations and, they have been even more busy giving presentations, performing demonstrations, chairing sessions at professional meetings and so on. I am very proud of the positive contributions each and every faculty member is making to the professional life of the Department.

Of course, speaking of new faculty reminds me that we are losing two long-time members of the mathematics faculty, Professors Billy Read and John Harvill. This, of course, is a bittersweet moment. They have worked very hard to reach this new phase of their life. They deserve it; however, we will miss them. But, their legacy, their spirit, their contributions will live on in the hearts and minds of the present faculty, students and alumni. We all wish them well.

We look forward to a good year in 2005. We do have many challenges ahead of us but they can all be met if we ALL the faculty become actively involved in the significant issues of the Department AND pull together in the right direction. Listen to the words of John Keating (Dead Poet Society), “Carpe Diem. Lads! Seize the day. Make your lives extraordinary!” Each one of us can make our lives “extraordinary.” If we, the faculty, do this, our department can be one of the best, one of the extraordinary departments of mathematics in the country. Carpe Diem!

Charles A. Coppin, Chair

New Staff

We are pleased to welcome Miss Julie Rodriguez as the newest addition to our office staff. Julie is serving as Administrative Assistant. Julie is a junior with a double major in Math and Mechanical Engineering.

MathFest! 2005

Mathfest! was held on March 4th at the John Gray Center. MathFest! is an annual fun day of mathematics-related events. Southeast Texas high schools are invited to send a group of students for a day individual and team competitions, and mathematics exhibits and presentations. The individual competitions included the areas of algebra, geometry, and calculator use, respectively. The team competition is a broad-based exam that covers topics from arithmetic, counting, algebra, geometry, financial mathematics, and multi-stage problems. The department is grateful to the University for their support of Mathfest! activities.

Putname

The Putnam team under the direction of Dr. Baker participated in the 65th Annual William Lowell Putnam Mathematics Competition held December 4, 2004. Team members were Joseph Hunt, Clint Jones, Jessica Clark, Paul Hay, and Janet Spossaman. A total of 3733 students from 515 universities and colleges from across the United States and Canada participated in the competition. Congratulations to these fine students.
**Pi Mu/ Math Club**

The current officers are President Joseph Hunt, Vice President Frances Iglesias, Vice President in charge of Math Club Conrad Nguyen, Secretary Robert Flores, Treasurer James Rains, and SGA Representative Jessica Clark. Pi Mu Epsilon has been greatly aided by its sponsors, Dr. Andreev, Dr. J. Daniel, Dr. Kang, Dr. Richardson, and Dr. Wilkinson, who have encouraged members in involved in campus activities and student research. Such involvement has included Spring Fest and Math Fest. Also, several students will be giving presentations at the Texas Section Meeting of the MAA in Arlington in April. Meetings are held most Wednesdays at 3:30 in room 208. All who would be interested in attending are welcome.

**Professional Appointments**

Congratulations to our Chair, Dr. Charles Coppin who is President Elect of the Texas Association of Academic Administrators of Math Sciences (TAAAMS).

**Funding**

Congratulations to Dr. Baker, Dawkins, Kang, Mahavier, Richardson, and Wilkinson on receiving a grant of approximately $250,000 from the Texas Education Agency to improve instruction of limited English proficient students at the high school level.

**Problem Section**

1. A triangle of area 1 has sides of lengths a, b, and c such that a > b > c. Prove that b > \(2^{1/2}\).

   Answer: Let A, B, C denote the vertices of the triangle with vertex B opposite the side of length b. Let \(h\) be the length of the altitude drawn from B to the line containing AC. Since the shortest distance from a point to a line is given by a segment perpendicular to the line, \(h \leq c\), hence \(h < b\). But the area of the triangle is \(1 = (1/2)bh\), so \(bh = 2\). Since \(h < b\), \(b^2 > 2\), hence \(b > 2^{1/2}\).

2. You can order pencils in boxes of 6, 9, and 20 pencils per box. What is the largest number of pencils so that it is not possible to obtain that number by purchasing some combination of boxes?

   Answer: 43

**Supporting our Department**

If you would like to make a tax-deductible donation to the Department, please make your check payable to the Lamar University Department of Mathematics and send to:

Lamar University  
Department of Mathematics  
P. O. Box 10047  
Beaumont, Texas 77710-0047

If you have questions or comments, please write to the address above or call us at (409)-880-8792.

**Recent Publications, Research Announcements, and Presentations of Faculty and Students**

P. Chiou and K. C. Chang, “Conditional interval estimation for the ratio of extreme-value scale (Weibull shape) parameters following rejection of a pre-test,” Journal of Statistical Research, 38(1), 109-119, June 2004
W. Miao and P. Chiou, “Interval estimation for the difference between exponential guarantee time parameters.” Journal of Probability and Statistical Science, 3(1), 121-133, February 200


D. Daniel and William S. Mahavier, “Concerning Cut Point Spaces of Order Three,” submitted to Colloquium Mathematicum


J. Daniel, Local Organizer: The 10th International Conference on Applications of Computer Algebra, Lamar University, July 21-23, 2004

J. Daniel, Chair of the General Session: The 10th International Conference on Applications of Computer Algebra, Lamar University, July 21-23, 2004

J. Daniel, Project NExT participant: MAA MathFest; Providence, Rhode Island; August 9-14, 2004


J. Daniel, Contributed presentation: “Algorithms for Computations in Local Real Symmetric Spaces”, 2004 Weekend Algebra Meeting; Southeastern Louisiana University; November 6, 2004

J. Daniel, Invited panel member: “Considering Graduate School”, 2004 Weekend Algebra Meeting; Southeastern Louisiana University; November 6, 2004

J. Daniel, Panel organizer: "Keeping Current in One's Research", Project NExT special session, MAA-AMS Joint Mathematics Meeting; Atlanta, Georgia; January 5, 2005

T. Mahavier, Sobolev Descent,” 30 minute invited address at World Congress of Non-linear Analysts, Orlando Florida, July 3rd, 2004


Alec Matheson, "Weak inequalities and Bergman projections", invited one hour talk, University of Virginia, December, 2004. (Joint work with Joseph A.Cima and Alexandru Aleman).

Panelist: "Keeping Current in One's Research", Project NeXT special session, MAA-AMS Joint Mathematics Meeting, Atlanta, Georgia, January 2005.