On October 22, 2004, Texas Tech University officials announced the creation of the $500,000 E.R. “Dick” and Martha Brooks Endowed Professorship in the Department of Mathematics and Statistics, the first of its kind for the department. Following a press conference announcing the award, a reception honoring the Brooks was held in the Mathematics and Science Building.

Dick Brooks was a member of the Texas Tech University System Board of Regents and an alumnus of the university. “Martha and I are dedicated supporters of Texas Tech and this gift provides an opportunity for us to give something back to the university that opened many doors for us,” said Brooks. “The Department of Mathematics and Statistics supports a wide range of disciplines, from engineering to science to business, all fields that have been important in my career.” Mr. Brooks is the retired chairman, president and chief executive officer of Central and South West Corporation, a public utility holding company located in Dallas. He received a Bachelor of Science degree in electrical engineering from Texas Tech in 1961. A native of Slaton, he had been honored as a Distinguished Engineer and a Distinguished Alumnus by Texas Tech.

The $250,000 contribution from the Brooks’ will be matched by funds through the Regents Faculty Endowment Program to create the professorship. The $250,000 contribution from the Brooks’ will be matched by funds through the Regents Faculty Endowment Program to create the professorship. The program is part of Texas Tech’s Path to Preeminence effort to enhance recruitment and retention of distinguished faculty. The endowment will enable the department to attract a nationally recognized scholar who will not only contribute to its research programs, but also enhance the educational experience of students in mathematics and statistics.

Faculty Excellence Recognized

The Department of Mathematics and Statistics has an ambitious and productive faculty. Congratulations are due to several colleagues who have recently received recognition for their achievements.

One of the most significant honors a faculty member can achieve at Texas Tech is the designation of Paul Whitfield Horn Professor. When Professor W.P. Dayawansa was awarded this distinction during the last academic year, he became the third Horn Professor in the department. Dr. Dayawansa (Daya) joined the faculty at Texas Tech University in 1986. It was apparent that he possessed remarkable talents and enormous energy and he quickly earned the respect of both the pure and applied research groups. In 1989, Daya left Tech to join the Electrical Engineering and Systems Research Center at the University of Maryland, College Park. At Maryland, Daya’s career flourished while he continued to maintain research collaborations with faculty in our department. In 1996 he returned to Texas Tech and since that time he has had a profound impact on the department’s scholarly productivity and success in securing sponsored research funding. Daya is also an outstanding teacher and the graduate program has benefited from his recruitment and mentoring of graduate students. They in turn have honored him as the SIAM Graduate Professor of the
It was a very special day in October when the university announced the establishment of the Dick and Martha Brooks Endowed Professorship in the Department of Mathematics and Statistics. By their generosity and commitment to Texas Tech University, Dick and Martha Brooks have provided our department a great opportunity to make a significant addition to our faculty. I also want to express my deep gratitude to Dean Jane Winer, College of Arts and Sciences, and Provost William Marcy, for their efforts in helping the department realize this important milestone.

Last spring the Graduate Program Review for Mathematics and Statistics was concluded. Much of the material that was part of the review process can be viewed on our departmental web page at http://www.math.ttu.edu/people/fac_act.shtml. This site provides extensive records of enrollment, degrees awarded, faculty publication and funding activity, employment and graduation records of M.S. and Ph.D. students, and other information that documents departmental activity and achievements. Recent years have been characterized by significant growth in our undergraduate and graduate programs as well as in the departmental teaching load. Some of the data that describes this growth is presented in the figures on this page. For instance, the number of student credit hours taught by the department has increased by nearly 30% during the last five academic years. During this period the number of undergraduate majors has grown by 56%. The number of graduate students in the program has seen a modest increase although there has been a significant increase in the number of full time graduate students. This has contributed to a 55% increase in the number of graduate student credit hours taught in the last five years and an increase in the number of degrees awarded. In the last three years the department has awarded 16 Ph.D. degrees, a level of production we hope to maintain.

This last year has been an extremely busy one for the department in terms of conference and outreach activities. Several of these events are featured in articles that appear in this issue. Beyond the benefits that these activities provide to research and educational programs, they reflect very well on the reputation of the department and the initiative of our faculty and students.

The value of our scholarship endowments continues to grow and as a consequence we have been able to increase support to mathematics and statistics students. I am certain this is an important factor in the increase in the number of majors. Please accept my sincere thanks for your continued support and do stay in touch.

from the Chair
Red Raider Mini-symposium Series

When Professor Frits Ruymgaart proposed the idea of the Red Raider Mini-symposium, he emphasized three aspects the symposium was to embody: (1) that the conference attract a list of distinguished speakers acknowledged as leaders in the field featured as the conference theme; (2) that the choice of the conference theme and organization of the symposium be provided by a junior faculty member; and (3) the event be characterized by an informal nature, with lots of opportunity for interaction among all the participants. With Frit’s generous support and the leadership of the junior faculty who have organized the event, the Red Raider Symposium, held each fall since its inception in 2000, has been extremely successful in meeting these objectives.

The two most recent Red Raider Mini-symposia have provided opportunities to hear internationally renowned researchers in both applied and pure areas of mathematics. The third symposium, organized by Professor Padmanabhan Seshaiyer, was entitled “Mathematical and Computational Modeling of Biological Systems.” The conference presentations addressed mathematical problems arising from cardiac arrhythmias, brain tumors, cardio-vascular modeling and surgery and neurobiology. The list of speakers included James Keener, University of Utah; Michael Reed, Duke University; Jay Humphrey, Texas A&M University; Arthur Sherman, National Institutes of Health; Charles Taylor, Stanford University; Trachetta Jackson, University of Michigan; and Mette Olufsen, North Carolina State University. The highly interdisciplinary meeting attracted 161 participants who came from 34 different universities from 27 different states and two countries outside USA and was also supported by grants from the National Science Foundation and the Whitaker Foundation.

The most recent Red Raider Symposium, “Perspectives in Invariant Theory,” featured speakers representing areas of mathematics such as Lie theory, mathematical physics and algebraic topology. The 2004 event was organized by Dr. Mara Neusel and the symposium’s program included talks by Roger Howe of Yale University, Peter Olver, University of Minnesota; Karen Parshall, University of Virginia; Vladimir Popov, Moscow State University; David Wehlau, Royal Military College; Clarence W. Willkerson, Purdue University; Anne Shepler, University of North Texas and Sarah Witherspoon, Texas A&M University. Grants awarded to Dr. Neusel from the National Science Foundation and the National Security Agency supported the event.

Each year the conference includes a reception at the home of the department chair and other special opportunities that feature department hospitality and points of interest in West Texas. In conjunction with the two most recent symposia, conference participants took a sightseeing tour to Palo Duro Canyon and a wine tasting tour of Cap Rock Winery.

Texas Geometry and Topology Conference

The Texas Geometry and Topology Conference (TGTC), which has met regularly at a Texas university since 1989, was hosted by the department in February 2005. Also known as “TGTC in Flatland,” the event was organized by Lance Drager, Razvan Gelca, Jeff Lee, and Magdalena Toda. Approximately 35 faculty and graduate students from 15 universities attended the event. Invited presentations were given by Ruth Gornet, University of Texas at Arlington; Brian Hall, University of Notre Dame; Klaus Kirsten, Baylor University; John Sullivan, Technical University of Berlin; Craig Sutton, University of Pennsylvania; Alejandro Uribe, University of Michigan; V. S. Varadarajan, University of California Los Angeles; Zhenghan Wang, Indiana University.

AMS Central Sectional Meeting

The Mathematics and Statistics building was overflowing with activity from April 8-10, 2005, when the department hosted the Spring Central Section Meeting of the American Mathematical Society. Approximately 300 mathematicians from 36 states and 23 countries attended the conference. Twenty-one department faculty members organized sessions on 19 areas of research. Approximately 250 talks were given over the three-day event with 22 talks delivered by faculty members from the Texas Tech Department of Mathematics and Statistics. The four plenary talks were delivered by Nicolas Monod, University of Chicago; Mattias Jonsson, University of Michigan; Hee Ho, California Institute of Technology; and Nikolai Ivanov, Michigan State. There was also a special session for graduate students. There were several social events that reflected well upon departmental hospitality. A reception was held in the Stadium Club at Jones SBC Stadium and departmental session organizers arranged dinners and social events for their session participants. The AMS officers and conference participants were very complimentary of the conference and much credit is due to the organizers: Drs. Wayne Lewis, Mara Neusel, and Magdalena Toda, and staff members Monica Hicks and Naomi Stoehr.
Ibragimov received his M.S. in Applied Mathematics from Azerbaijan State Institute of Oil & Chemistry in Baku and the Ph.D. degree from Moscow State University in Physics and Mathematics. He then received a Doctor of Sciences in Physics & Mathematics from The Steklov Institute of Mathematics in Moscow. His research areas include partial differential equations, porous media, and mathematical biology.

Akif stated that he came to Texas Tech for a number of reasons. “I was impressed by the vibrant atmosphere and the growing community of researchers from different scientific areas. I am interested in interdisciplinary research and was happy to encounter a lot of good will, openness and collaborative spirit. The atmosphere of collaboration and human interaction allows for the best performance, both in teaching and scientific research.”

Dr. Jerry Dwyer has a BA in mathematical sciences, an M.S. in Computer Science and a Ph.D. in applied mathematics, all from University College Cork, Ireland. Dr. Dwyer worked for many years in computational mechanics related to fracture, composite materials and glaciology. In recent years he has focused his work on issues of math education and developed a range of K-12 outreach projects at the University of Colorado and the University of Tennessee before arriving at Texas Tech as an assistant professor in fall 2003. Dr. Dwyer’s outreach activities at Texas Tech include serving as the director of TexPREP, making frequent K-12 school visits, organizing math clubs for girls at area junior high schools, and promoting service learning.

Dr. Jerry Dwyer comes to Tech as a full professor from Texas A&M University, where he was a visiting professor in the Department of Mathematics. Prior to that, he was a member of the faculty at State Oil & Gas University, Moscow. His professional experience also includes his work as a senior specialist in reservoir modeling with the Azerbaijan International Oil Company, as chief researcher at the Oil & Gas Research Institute, Russian Academy of Sciences in Moscow, as consultant with the largest Russian oil company, LUKOIL, and as a researcher with the Institute for Mathematics & Mechanics in Baku.

Dr. Chris Monico received his B.S. from Monmouth University in New Jersey and his M.S. and Ph.D. from the University of Notre Dame. His research interests include partial differential equations, porous media, and mathematical biology. He was an assistant professor at Georgia State University before joining our faculty as an associate professor. His research is in large sample theory and nonparametric bootstrap on manifolds, with applications in directional, shape and image data analysis, as well as in constant gravitational fields and curvature of homogeneous spaces. During his first year at Texas Tech he received a grant from the National Science Foundation and he also has external funding from the National Security Agency.

Dr. Patrangenaru says that his main research interests include pure and applied mathematics, with a focus on differential geometry, (mathematical) physics, and statistics. He has been involved in collaborative research with students and colleagues in various areas of mathematics, computer sciences, engineering, and biology. His research has been supported by grants from the National Science Foundation, the Office of Naval Research, and the Department of Defense.

Dr. Victor Patrangenaru has a Ph.D. in Statistics from Indiana University and a Ph.D. in Mathematics from Haifa University, Israel. He is interested in the field of partial differential equations and their applications in various areas of mathematics and physics. He has been involved in collaborative research with students and colleagues in various areas of mathematics, computer sciences, engineering, and biology. His research has been supported by grants from the National Science Foundation, the Office of Naval Research, and the Department of Defense.
sons for accepting a position in Mathematics and Statistics at Texas Tech were “the friendly atmosphere, the high standards and the ongoing Ph.D. program in the department.” He also appreciates the opportunity to work with colleagues and graduate students at TTU.

Lih-Ing Roeger

Dr. Lih-Ing Wu Roeger received a B.S. degree in mathematics at National Taiwan University and a M.S. degree in applied mathematics at National Tsing-Hua University in Taiwan. In 2000 she received a Ph.D. in mathematics from Purdue University. Before coming to Texas Tech University as a visiting assistant professor, Dr. Roeger was a member of the faculty at Berea College in Berea, Kentucky. She accepted a position as an assistant professor in the Department of Mathematics and Statistics starting fall 2004.

Dr. Roeger’s research specializations are mathematical biology and mathematical epidemiology. In her dissertation research she analyzed a model for a childhood infectious disease using bifurcation dynamics. She has also analyzed and numerically simulated a differential equation model for an epidemic that incorporates two infectious diseases, TB and HIV and has expanded her research agenda to discrete models and difference equations. Her most recent work is in non-standard numerical methods on two-dimensional predator-prey models.

During the two years she was a visiting assistant professor in the department, she enjoyed the work environment, her colleagues and the weather in Lubbock. When the opportunity for her to be promoted to tenure-track status, she did not hesitate to accept the position. Dr. Roeger thinks this is a wonderful department in which to work. “We have a very supportive department chair, and that makes a whole world of difference.”

Alex Solynin

Dr. Solynin joined our faculty as a tenured Associate Professor. He received his Ph.D. in Mathematics from the Institute for Applied Mathematics & Mechanics, the National Academy of Sciences, Ukraine. He served on the faculty of the State University of Krasnodar where he achieved the rank of Associate Professor. He then joined the faculty at the Steklov Institute of Mathematics, St. Petersburg. In 1993 he was appointed as Senior Research Fellow at the Steklov Institute. Alex had been a visitor at TTU in fall 2000 and then again for the 2001-2002 academic year. His fields of specialty are complex analysis, conformal and quasiconformal mappings, potential theory, and partial differential equations. Alex is regarded as a world leader in the broad area of geometric function theory. Shortly after accepting the position at TTU, the National Science Foundation notified him that his pending proposal had been funded.

In responding to why he came to Texas Tech, Alex replied, “During my two visits I found a friendly department, met wonderful people, excellent researchers and graduate students from different areas of mathematics. With Dr. Barnard and Dr. Pearce, we started a joint research project on extremal problems in geometric function theory. I came to Texas Tech University to join a growing department with a wonderful atmosphere of collaboration, a group of enthusiasts working in complex analysis and potential theory, and with the hope to continue my scientific work with greater participation of graduate and undergraduate students.”

Professor Monico Cracks Code

In a certain sense, the usefulness of public key cryptography depends on the complexity of mathematics. The security offered by a cryptosystem is based on the hope that someone will not be able to solve an underlying difficult mathematical problem. On two occasions Assistant Professor Chris Monico has solved problems publicized by a company in order to convince potential customers of the security of their cryptosystems.

Gaining popularity are cryptosystems based on computing discrete logarithms in elliptic curve groups. Recently NSA licensed rights from the Canadian company, Certicom, to use this cryptography. However, as with other public-key cryptosystems, elliptic curve cryptography (ECC) has not yet been proven secure. One way that companies attempt to convince customers of the security of their systems is by publishing a “challenge problem.” To solve such a problem amounts to breaking a particular instance of their cryptosystems. Companies offer cash prizes as a motivation for would-be attackers to break the cryptosystem. With good cryptography, the more difficult challenge problems will go unsolved in spite of the cash prizes, providing some evidence of the strength of their product.

The Toronto-based company Certicom issued a series of such challenges several years ago, which amounted to computing discrete logarithms in elliptic curve groups. ECC2-109 is the name of one of these particular challenge problems. It represents a discrete logarithm problem in a specific elliptic curve group over the field with 2109 elements. Professor Monico and collaborators developed code and implemented it on a worldwide network utilizing several thousand computers. It took nearly a year of computation, but they were able to solve the ECC2-109 challenge problem in April 2004 and claim a $10,000 prize. As a graduate student, Dr. Monico had earlier solved a Certicom Challenge in 2001 and for which he also received a $10,000 prize. Dr. Monico shared his prize money with a “motley crew of computer guys” and the Free Software Foundation.
The 31st Annual Mathematics and Statistics Awards Banquet was held at the McInturff Center on April 13, 2004. Over 160 students, faculty, retired faculty, family members, and friends attended the event.

Scholarships were presented to undergraduate and graduate students that varied in amounts from $200-$1500. A total of more than $25,000 was presented to mathematics and statistics majors, many of whom also received other stipends from Texas Tech.

The three student organizations recognized faculty. Dr. Roger Barnard was named the Kappa Mu Epsilon Distinguished Professor. The Texas Tech Student’s Chapter of the Mathematical Association of America (MAA) named Dr. Anatoly Korchagin as its Outstanding Professor. The student chapter of the Society for Industrial and Applied Mathematics recognized Dr. Padmanabhan Seshaiyer as the Outstanding Graduate Professor.

The scholarship recipients for the 2004-05 academic year were:

**PhD ‘04**
Aug- Bernard Omolo
Eun-Joo Lee
Seung-Hwan Lee
Keith Emmert

**Masters ‘04**
May- Bali Chen
Ashley Trent
Zachary Kemp
Heather Smith
Shyleah Harris
Syna Walby
Ke Yan
Samantha Bouquín
Yuqing Gao

Aug- Ian Martines
Robert Plant
Sherri Wilson
Robert McCormack
Susitha Karunaratne
Tim Hopkins
Rachel Cline
Theresa Busse
Kiyomi Kaskela
Nalo Lewis

Dec- Janelle Charles
David Cook
Charity Kelter
Brian Miller

**PhD ‘03**
May- Cynthia Martin
Aug- Nadarajah Kirupahran
Gerard Ornas
Armando Arciniega

Dec- Panteleon Perera
Channa Navaratna

**Masters ‘03**
May- Bradley Beauchamp
Tracey Harris
Matthew Shirley
Nilmini Wijeratne
Nicholas Willis
Shawna Allen
Taiymond Holapple
XuLi Li
Josh Nelson
Brian Tate

Aug- Daniel Hermann
Wayne McGee
Casey Hume
Donna Mills-Taylor

Dec- J’Lee Bumpus
Menaka Navaratna
Robert Hill
Niranjala Perera
Duminda Randemiyi
Rachel Koskodan
Matthew Kinard

---

**Student News**

**31st Annual Mathematics and Statistics Awards Banquet**

**PhD ‘04**
Aug- Bernard Omolo
Eun-Joo Lee
Seung-Hwan Lee
Keith Emmert

**Masters ‘04**
May- Bali Chen
Ashley Trent
Zachary Kemp
Heather Smith
Shyleah Harris
Syna Walby
Ke Yan
Samantha Bouquín
Yuqing Gao

Aug- Ian Martines
Robert Plant
Sherri Wilson
Robert McCormack
Susitha Karunaratne
Tim Hopkins
Rachel Cline
Theresa Busse
Kiyomi Kaskela
Nalo Lewis

Dec- Janelle Charles
David Cook
Charity Kelter
Brian Miller

**PhD ‘03**
May- Cynthia Martin
Aug- Nadarajah Kirupahran
Gerard Ornas
Armando Arciniega

Dec- Panteleon Perera
Channa Navaratna

**Masters ‘03**
May- Bradley Beauchamp
Tracey Harris
Matthew Shirley
Nilmini Wijeratne
Nicholas Willis
Shawna Allen
Taiymond Holapple
XuLi Li
Josh Nelson
Brian Tate

Aug- Daniel Hermann
Wayne McGee
Casey Hume
Donna Mills-Taylor

Dec- J’Lee Bumpus
Menaka Navaratna
Robert Hill
Niranjala Perera
Duminda Randemiyi
Rachel Koskodan
Matthew Kinard

---

**Students and Kim Loveless at the 2004 Mathematics and Statistics Awards Banquet**
SIAM News

The local graduate student chapter of the Society for Industrial and Applied Mathematics continues to sponsor and promote a series of events that enhance the educational and social experience of our graduate student population. For maintaining such an innovative agenda, the national SIAM organization recognized the Texas Tech chapter as one of the top 25 active chapters in the nation and was invited to participate at the upcoming SIAM Annual Meeting and Student Day to be held in New Orleans in July 2005. For its exemplary activity, the Texas Tech Chapter was awarded $500 to support chapter activities for the 2004-2005 academic year and the national organization's web page featured the Texas Tech chapter, along with those from schools such as Stanford, Cal Tech, Virginia Tech and the University of Maryland.

One of the activities organized and sponsored by the chapter is the SIAM Fall Symposium. This event gives new graduate students an opportunity to learn about the research of faculty members in the department. The Second Annual SIAM Graduate Student Research Day was held in spring 2004 and provided an opportunity for students to present their research work to their peers, faculty members and other interested parties. Faculty members judged student talks, and prizes were awarded at the Annual Spring Banquet for the most outstanding presentations. Last year, nine students presented their masters research and eight students presented their doctoral work and close to 60 people attended the event. The students who received the awards in the Ph.D. category were: Edward Swim (First Place), Wayne McGee (Second Place) and Eun-Joo Lee (Third Place) and in the M.S. category were: Theresa Busse (First Place), Ashley Trent (Second Place) and Ian Martines (Third Place). Each year two outstanding graduate students from the department are selected for a $500 SIAM Graduate Scholarship and those who received the awards during the past year were Edward Swim and Ali Khoujmane. The SIAM Graduate Professor of the year was awarded to Dr. Edward Allen (2003) and Dr. Padmanabhan Seshaiyer (2004).

In 2004, the local chapter initiated the SIAM Graduate Student Travel Awards that are given to eligible students who present their research at state and national meetings. Last year, eleven graduate students from the department were awarded travel funds that were matched by the department. The SIAM Colloquium was presented last year by Dr. Carlos Castillo-Chavez, Arizona State University. The goal of this annual colloquium is to bring to the department, an outstanding individual who has contributed extensively to the broad area of applied mathematics and scientific computing, with the goal of educating graduate students to new research venues and problems. SIAM has also supported several outreach activities and enrichment programs, including the Emmy Noether Mathematics High School Day for Women and the Red Raider Mini-symposium. SIAM also sponsored several social events such as the fall welcoming lunch, Thanksgiving luncheon, bowling night and spring fling.

Student Achievements

• Ashley Trent and Raymond Holsapple were awarded Air Force Air-Vehicles Directorate Graduate Student Assistantships and spent the summer at Wright-Patterson Air Force Base conducting research.

• Harshini Fernando, Ali Khoujmane, and Matthew Walker participated in the 2004 Institute for Mathematics and its Applications Summer Program for graduate students, “Mathematical Modeling in Industry: A Workshop for Graduate Students,” held at the University of Minnesota.

• Billy Duke received the Texas Tech University Graduate School’s Outstanding Doctoral Graduate Part-Time Instructor Award.

• At the Third Annual Graduate and Professional Student Association Poster Research Competition, three winners were selected from the Mathematics and Statistics department: Edward Swim (First), Robert McCormack (Second), and Eun-Joo Lee (Third).

• Curtis Weslely and Ben Hough participated in the IMA Summer Program for graduate students, “Coding and Cryptography” held at the University of Notre Dame.

Pictured are some of the Texas Tech University Mathematics and Statistics students who attended the 2004 Texas Section Meeting of the Mathematics Association of America at Corpus Christi, TX. The department was well represented at the conference with seventeen undergraduate students attending the meeting. In addition, five of our graduate students delivered conference presentations.
Ed Allen was a speaker and session organizer at the Fourth World Congress of Nonlinear Analysis, Orlando.

Linda Allen gave a series of invited talks at the Banff International Research Station, Alberta, Canada.

Kamal Chanda presented a talk at the Ninth International Conference on Difference Equations and Applications, Los Angeles.

Roger Barnard and Brock Williams were invited speakers at the Mathematisches Forschungsinstitut, Oberwolfach, Germany.

W. P. Dayawansa was elected Program Chairman for the 2005 American Control Conference and will be a guest editor of a special issue of the Journal of Control Theory and Applications.

Jerry Dwyer was an invited participant at the Park City Mathematics Institute, an outreach program of the Princeton Institute for Advanced Study.

David Gilliam was elected as Secretary/Treasurer for the Society of Industrial and Applied Mathematics Activity Group on Control and Systems.

Razvan Gelca gave an invited talk at the Tata Institute for Fundamental Research Mumbai, India.

Gary Harris contributed a paper at the International Conference on Technology in Collegiate Mathematics, New Orleans.

Akif Ibragimov was an invited speaker at the Scot and White Clinic Cardiovascular System Seminar, Temple, Texas.

Lourdes Juan was a sponsored participant at the conference on Groupes de Galois Arithmetiques et Differentiels, Luminy, France.

Arne Ledet spoke at the Workshop on Inverse Galois Problems and Galois Covers, Kochi University, Japan.

Wayne Lewis was an invited participant at the art and mathematics show, Pseudo-Arc for the People, White Water Art Gallery, Ontario, Canada.

Clyde Martin delivered the Sunaraha Memorial Lecture at the 36th International Symposium on Stochastic System Theory and its Applications in Tokyo, Japan.

Sandro Manservisi was a plenary speaker at the Conference on Robust Optimization, Shalimar, Florida.

Chris Monoico gave a series of lectures at the 2004 IMA Summer Program for Graduate Students in Coding and Cryptography, University of Notre Dame.

Mara Neusel was an invited speaker at the Conference on Algebraic Topology in Honor of Hyunh Mui’s 60th Birthday, Hanoi, Vietnam.


Victor Patrangenaru gave an invited talk at the Midwest Geometry Conference, Fayetteville.

Lih-Ing Roeger was an invited speaker at the International Conference on Nonlinear dynamics and Evolution equations, Newfoundland, Canada.

Frits Ruymgaart gave an invited talk at the meeting on Operator Methods in Microeconometrics, Time Series and Finance, Montreal, Canada.

Carl Seaquist presented a talk at the Spring Topology and Dynamics Conference, University of Alabama, Birmingham.

Padmanabhan Seshaiyer was an invited speaker at the European Congress on Computational Methods in Applied Sciences and Engineering, Jyvaskyla, Finland.

Lawrence Schovanec was elected President of the Texas Association of Academic Administrators in the Mathematical Sciences.

Phil Smith presented a colloquium at the University of Wyoming.

Alex Solynin was appointed to the panel, “Future Research Directions in Classical Analysis,” that will be part of the program at the International Analysis Conference to be held at Washington University, May 2005.


Magdalena Toda gave an invited talk at the 2004 Texas Topology and Geometry Conference, University of Texas-Arlington.

David Weinberg spent the spring 2004 semester at the Mathematical Sciences Research Institute in Berkley, California while on a faculty development leave.

Ram Venkataram Iyer spoke at The International Society for Optical Engineering Conference on Smart Structures and Materials, San Diego.
Faculty Excellence (cont.)

Clyde Martin

Year. Faculty and students alike take delight in this recognition bestowed on one of our most likeable colleagues.

At the Spring 2004 faculty convocation, Paul Whitfield Horn Professor Clyde Martin was awarded the Texas Tech University President’s Academic Achievement award. This distinction recognized Professor Martin’s contributions in the areas of teaching, research and service. He has an international reputation among the control theory community and has also initiated several interdisciplinary research projects. This work has been carried out with several departments at Texas Tech, at Tokyo-Denki University and the Royal Institute of Technology in Sweden, where he was conferred an honorary doctorate in 2002. Some of this work includes applications of control theory in biology, epidemiology, population dynamics, neuroscience and biomechanics. Dr. Martin has directed more than 65 Ph.D. and masters students. On the occasion of his 60th birthday, the conference, “New Directions in Control Theory and its Applications” was held at Texas Tech University in celebration of Dr. Martin’s 60th birthday. Distinguished researchers from around the world gathered to recognize his achievements as a scholar and teacher. Approximately 30 speakers, from Harvard, University of Maryland, University of California, Berkeley, Washington University, St. Louis, and the Royal Institute of Technology, Stockholm, and other institutions spoke at the conference.

Because of her many contributions as a scholar, educator and role model, Professor Marianna Shubov was awarded the YWCA Women of Excellence Award in Science in spring 2004. Professor Shubov has maintained a prolific record of scholarly publication and funded research. She has been the principal investigator of numerous grants from the National Science Foundation and the Texas Higher Education Coordinating Board Advanced Research Program. Support from the National Science Foundation program provided initial support for Dr. Shubov’s research with colleagues from NASA’s Dryden Flight Systems Center and UCLA’s Flight Systems Research Center that continues to this day.

When Professors Gary Harris and Carl Seaquist received the President’s Excellence in Teaching Award at the last two Faculty Convocation ceremonies, it marked three consecutive years that a faculty member from Mathematics and Statistics received this distinction. Dr. Harris and Dr. Seaquist are both regarded as innovative teachers with strong convictions about student learning and effective teaching methods. In addition to their contributions in the classroom, both have contributed to the educational mission of the department by virtue of other professional and service activities. In recent years, Dr. Harris’ research has addressed the areas of curriculum and pedagogy, teacher preparation, and graduate student training. In addition to his scholarly work, as Director of the Undergraduate Program, Dr. Harris has led efforts to enhance the relevance of departmental service courses and has been primarily responsible for the design of the curriculum for pre-service teachers. Dr. Seaquist is an exceptional teacher and has been recognized on two occasions as the Texas Tech Student Chapter of the Mathematical Association Professor of the Year. His influence on students goes beyond the classroom. He is the coordinator of the Master of Arts program and the faculty sponsor of the student MAA chapter. In these positions and by virtue of his genuine concern, he has

continued on page 15

Gary Harris

Padhu Seshaiyer

Marianna Shubov

Carl Seaquist
Outreach

Summer Mathematics Academy Established

With the objective of attracting some of the best and brightest students from West Texas to mathematics and statistics, engineering, and science, the Department of Mathematics and Statistics established the Texas Tech University Summer Mathematics Academy (TTUSuMAC) in summer 2004. The uniqueness of the academy is that it also provides training and enrichment opportunities for high school teachers.

The two-week intensive academy consisted of lecture series on a variety of topics, computational laboratory experiences, and guest seminar workshops. The components of the academy were voluntarily taught by 15 mathematics and statistics faculty. The Academy provided an opportunity for active researchers to share with high school students the elegance of advanced mathematics and its importance to careers in science. In the inaugural year of the Academy, some of the topics covered were applications of group theory, inverse problems, biomechanics, combinatorics, symbolic and parallel computing.

Dr. Jerry Dwyer and Dr. Padmanabahn Seshaiyer are the co-organizers of TUSuMAC. In summer 2005, the academy will be expanded to include a residential program. Students will be recruited from greater West Texas and eastern New Mexico and also from Dallas, Houston and Austin areas. The upcoming academy will take place on June 6-17, 2005.

TexPREP Completes Nineteenth Year

For the nineteenth year, the Department of Mathematics and Statistics conducted the TexPREP-Lubbock program. Approximately 90 students took part in the 2004 TexPREP-Lubbock summer program which took place in the Department of Mathematics and Statistics on the Texas Tech University campus June 2 through July 17. TexPREP, directed by Dr. Jerry Dwyer, has the primary focus of increasing awareness of careers in engineering, mathematics, and science among minorities and women. Courses in the program covered topics such as logic, calculus, robotics, and cryptography as well as time management and leadership skills.

The students from each of the four prep levels were able to participate in many activities in and outside of the classroom. Students constructed mousetrap racecars and gliders and worked in teams to build toothpick bridges and roller coasters, Lego robots, and egg drop devices. In addition to class projects, the students took local field trips to American Wind Power Center and Silent Wings Museum in Lubbock and visited the Reese Center to explore the High Performance Computing Center and Wind Engineering Center. In addition, trips were made to Dallas to visit Paragon Innovations and Zyvex where they learned of upcoming engineering designs such as the IED replacement of neon lighting, nanotechnology, breathalyzers for automobiles, and the latest and greatest version of paint ball guns using lasers. The students were able to compare their roller coaster designs with those of real engineers at Six Flags Over Texas and have some fun at the same time.

Since the beginning of the program in 1986, 862 students have completed one or more levels of the program. Students who have completed the program have a 100% high school graduation rate and of those who go on to attend college, 60% choose a major in engineering, mathematics, or science. Since 1998, the program has experienced a 26% increase in minority participation.

The Joy of Thinking

Professors Magdalena Toda and Jerry Dwyer are co-directors of “The Joy of Thinking,” a program designed to increase interest and enthusiasm for scientific reasoning and mathematical activities among preadolescent and adolescent girls. The program is funded by the Mathematical Association of America in conjunction with the Tensor Foundation. The primary focus is the implementation of girls’ math clubs in local area middle schools. As of February 2005 seven separate clubs have been formed, representing a diverse range of urban and rural schools. Approximately 150 girls have participated in the program during the 2003-2005 time period.
Emmy Noether Day

The Emmy Noether High School Mathematics Day is part of the department’s outreach efforts to enhance the educational experiences of students in area schools. A special focus of the Emmy Noether Day is to provide female students with a unique experience designed to foster interest in mathematics and to give insight into career opportunities associated with mathematics.

The first two Emmy Noether Days, held on May 15, 2003 and May 4, 2004, were overwhelmingly successful. More than 160 students from area high schools and junior high schools attended each event along with more than twenty of their teachers. After a morning mathematics competition the students participate in workshops presented by mathematics and statistics faculty members. These workshops were entertaining and informative, and they presented a broad variety of mathematics and its applications. For example during the most recent Emmy Noether Day, biomathematicians Dr. Linda Allen and Dr. Lih-Ing Roeger played the Disease Game with their group. Geometer Dr. Magdalena Toda had them tile 2D and 3D dream houses. Other workshops focused on coding theory, cryptography, traffic accident statistics, modeling of physical systems, binomial coefficients, and the algebra of juggling.

A career panel moderated by Dr. Dolores Ludwig and consisting of young successful women who have graduated from our department followed the workshops. Former students who have served on the panel in the last two years are Molly Dickens, Kathleen Gilliam, Cindy Martin, Agaytha Reed, Leah Butler Cole, Elvia Gomez, Kristi Jarman, Cassandra Kindla and Pamela Lockwood. At the end of the day prizes are awarded to the winners of the mathematics competition.

Professor Mara Neusel has been the primary organizer of the event and is assisted by the organizing committee that consists of faculty members Roger Barnard, Padhu Seshaiyer, Carl Seaquist, Jo Temple, and Magdalena Toda. Dr. Wayne Lewis is the contest coordinator.

Calculations Across Cultures and History

In an age that emphasizes the use of technology in teaching mathematics, one might wonder why two faculty members are using calculating rods, slide rules, and abacuses to convey mathematical concepts. These “technologies” are some of the tools that are introduced to students in grades 4-6 as part of the educational outreach program, Calculations Across Cultures and History. Coordinated by Professors Carl Seaquist and Padmanabhan Seshaiyer, this program teaches elementary school students about the history and geography of various arithmetical calculations from different countries. Napier’s bones, pencil and paper techniques, and Vedic mathematics are also introduced as part of this hands-on program.

Calculations Across Cultures and History was started three years ago and is conducted twice a year. Drs. Seaquist and Seshaiyer are assisted by members of the student chapters of the MAA and SIAM as well as personnel with the K-12 International Education Outreach Program at the International Cultural Center of Texas Tech University. Dr. Seaquist and Dr. Seshaiyer were invited to participate in the Texas Council for the Social Studies State Convention. They presented to teachers from around the state ways to enhance the mathematics curriculum and to integrate it into the social studies classroom. A paper based on this innovative program has also recently appeared in the Texas College Mathematics Journal.
1. Describe your current job position and the activities and responsibilities associated with it.

Currently, I am a assistant professor of Mathematics at Rhodes College in Memphis, Tennessee. Primarily, I teach undergraduate mathematics. Also, I have been pursuing research in topology, particularly in continuum theory and dynamical systems. Among other duties, I am a faculty advisor and on the Health Professions Committee. This year, I am organizing the Hendricks-Rhodes-Sewanee Mathematics Symposium, which is a conference that celebrates undergraduate research from the students at these three schools.

2. How have your mathematics background, and in general, your educational experience at TTU, been relevant to your professional career?

Well, besides the obvious, I am grateful that I took a large variety of courses at Texas Tech. This has given me the ability to teach any undergraduate math course. This is important being at a small liberal arts college such as Rhodes. Also, being able to teach for the five years that I was a graduate student gave me valuable experience. I have found that many new professors' first experience teaching is their first post-graduate job and they often struggle. Several realize that teaching is not what they want to do.

Also, I am grateful to my dissertation advisor, Wayne Lewis, who not only did an excellent job of training me as a topologist but also introduced me to the culture of mathematics by taking me to several topology conferences. It is because of this that I have been able to continue my work in topology after I left TTU.

3. Why would you encourage someone to pursue a degree in mathematics or statistics?

To me, mathematics is fun. It is challenging yet very satisfying. One of the most rewarding feelings is when after hours or days (or months or years) of hard work, a solution suddenly becomes clear. But besides entertainment, people well trained in mathematics are the best critical thinkers and problems solvers, and industry recognizes this. Many mathematicians are desired in seemingly unrelated jobs because of their problem solving skills.

4. Could you relate some vivid memories of fellow students or faculty in the Department of Mathematics and Statistics?

My third year, I shared an office with Rob Howard and Steve Novasel. Steve and I liked to play practical jokes on Rob and we were all in Professor Mansouri's Probability and Statistics class. Rob missed class one day, so Steve and I decided that we would enact our own punishment. Steve and I memorized a few values of the normal distribution table in the appendix of the book and began to "quiz" each other on the values the next time Rob came to the office. Rob asked what we were doing, so we told him that Prof. Mansouri wanted us to have the table memorized for the upcoming test. Well, Rob got a little stressed about this and complained to other students in the class on how this was unfair and unnecessary. Of course, the other students laughed at him and reminded Rob where he got this information.

---

**Gabriella Pinter & Istvan Lauko**

1. Describe your current job position and the activities and responsibilities associated with it.

As assistant professors at the Department of Mathematical Sciences at the University of Wisconsin-Milwaukee our responsibilities include teaching undergraduate and graduate mathematics courses, as well as conducting research in the area of applied mathematics. Gabriella is involved in studying high frequency pulse propagation in dielectric materials, and modeling viscoelastic materials. Istvan is interested in areas such as nonlinear stabilization of control systems and image filtering algorithms applicable in magnetic resonance imaging. We work with graduate students and participate in the activities at the Center for Industrial Mathematics at UWM.

2. How have your mathematics background, and in general, your educational experience at TTU, been relevant to your professional career?

Our years at the Mathematics Department in Lubbock were vital as a preparation for our career. We feel that we got an excellent basic training in many areas of mathematics, and a motivation to explore new areas. We had several outstanding professors who supplied us with a lot of notes, hard worked us with a lot of work, provided us with good challenges, and actually became examples that we try to follow. We were lucky to have the opportunity to take several specialized courses that proved to be very useful in our later work.

3. Why would you encourage someone to pursue a degree in mathematics or statistics?

We would not presume to know what other people want to accomplish in their lives, but for us this route gave great intellectual challenges and satisfactions. We have met exceptional people in our profession and several professionals at other fields who experienced that people with mathematics degrees can learn quickly, are adoptable, and very valuable to work with.

4. Could you relate some vivid memories of fellow students or faculty in the Department of Mathematics and Statistics?

We have great memories of the Friday afternoon complex analysis sessions with Professor Roger Barnard, the amazement at Professor Victor Shubov's seemingly impromptu lectures that resulted in above textbook quality notes, the sweeping enthusiasm and fun lecture style of Professor David Gilliam, the memorable differential equations course of Professor Lawrence Schwovance, and too many more to mention. We really enjoyed the friendly atmosphere engineered by Margaret and Norma at the office.

---

**Yssa DeWoody**

1. Describe your current job position and the activities and responsibilities associated with it.

I currently hold the position of visiting professor with a joint appointment between the Department of Forest and Natural Resources (FNR) and the Department of Mathematics. My research interests lie in the broad field of mathematical biology. In particular, I am studying how species respond to fragmentation of landscape and how the community stability is affected by a reduction in species richness. I address many of these questions through analytic and numerical methods as well as simulation methods. I am also teaching two courses in the spring: a graduate course entitled, “Spatial models for fragmented landscapes,” for FNR and “Differential equations for engineers,” for the mathematics department.

2. How have your mathematics background, and in general, your educational experiences at TTU, been relevant to your professional career?

One of the greatest things about a degree in mathematics or statistics is the flexibility it affords one. Every field has need of individuals with analytic or quantitative skills, i.e. problem solvers. And it is often easier for a mathematician to learn a specific application than it is for an expert to gain mathematical skills. Thus it is my experience that when equipped with a good mathematical background there is no limit to number of fields which you can investigate. The only downside is your defunct nerd status.

3. Why would you encourage someone to pursue a degree in mathematics or statistics?

We would not presume to know what other people want to accomplish in their lives, but for us this route gave great intellectual challenges and satisfactions. We have met exceptional people in our profession and several professionals at other fields who experienced that people with mathematics degrees can learn quickly, are adoptable, and very valuable to work with.

4. Could you relate some vivid memories of fellow students or faculty in the Department of Mathematics and Statistics?

Well, besides the obvious, I am grateful that I took a large variety of courses at Texas Tech. This has given me the ability to teach any undergraduate math course. This is important being at a small liberal arts college such as Rhodes. Also, being able to teach for the five years that I was a graduate student gave me valuable experience. I have found that many new professors’ first experience teaching is their first post-graduate job and they often struggle. Several realize that teaching is not what they want to do.

Also, I am grateful to my dissertation advisor, Wayne Lewis, who not only did an excellent job of training me as a topologist but also introduced me to the culture of mathematics by taking me to several topology conferences. It is because of this that I have been able to continue my work in topology after I left TTU.

3. Why would you encourage someone to pursue a degree in mathematics or statistics?

We would not presume to know what other people want to accomplish in their lives, but for us this route gave great intellectual challenges and satisfactions. We have met exceptional people in our profession and several professionals at other fields who experienced that people with mathematics degrees can learn quickly, are adoptable, and very valuable to work with.

4. Could you relate some vivid memories of fellow students or faculty in the Department of Mathematics and Statistics?

We have great memories of the Friday afternoon complex analysis sessions with Professor Roger Barnard, the amazement at Professor Victor Shubov’s seemingly impromptu lectures that resulted in above textbook quality notes, the sweeping enthusiasm and fun lecture style of Professor David Gilliam, the memorable differential equations course of Professor Lawrence Schwovance, and too many more to mention. We really enjoyed the friendly atmosphere engineered by Margaret and Norma at the office.
John E. Ekelund (BS ’57, MS ’59) and his wife, Marianna (BA ’57) live in Claremont, California. John retired in December 2002, but continues to work part-time at the Jet Propulsion Laboratory where he is in the Spacecraft Navigation Department. He is currently working on navigation software for the 2004 Cassini mission to Saturn.

A.C. Sharbutt (BS ’65) died on February 3, 2004 in Houston.

Denise (Kellogg) Johansen (BA ’85, MS ’88) is currently an Assistant Professor at the University of Cincinnati.

Bijan Pashaie (MS, ’90) is a faculty member in Engineering-Physics at Southeast Missouri State. He has been teaching courses in subjects such as circuit theory, control systems, and digital design while doing research in plasma chemistry and surface processing of inorganic and organic material.

Dr. Patrick Tarwater (BA ’90, MS ’92) and Julie Summerford Tarwater (BA ’91) announced the birth of Jett Dalton on February 13, 2004. They reside in El Paso where Pat is a Research Professor at the UT School of Public Health-El Paso.

Tim Orsak (BS ’91, MS ’93) is Assistant Superintendent for Curriculum, Instruction, and Finance in his hometown of Seymour, Texas.

Andy Chang (PhD, ’93) was promoted to full professor in the Department of Mathematics and Statistics at Youngstown State University.

Mark Damron (BS ’93, MS ’95) is an actuarial analyst for USAA in San Antonio. He and his wife, Pilar, were married June 2003 in Seville, Spain.

Dr. Nick Cogan (BA ’94) is an Assistant Professor at Tulane University.

Theresa Urrabazo (MS ’97) is an Executive Program Analyst for the Research and Evaluation Department of the San Antonio Independent School District.

Robb Berry (BS ’97, MS ’01) is a software engineer for Raytheon and resides in Dallas.

Dr. Philip Anderson (MS ’98, EdD ’02) is an Associate Professor of Mathematics at South Plains College.

Nathan and Jennifer Peterson Conner (MS ’98) announce the birth of a son, Zachary Ross, on July 13, 2003. Jennie is a statistician with CitiMortgage in Ballwin, Missouri.

Chad and Diana Beard Kroeker (BA ’98) announced the birth of a son, Ethan Riley, on November 3, 2002. They are living in Burleson, Texas.

Jason (BA ’99) and Leah Butler Cole (MS ’00, PhD ’02) announced the birth of a daughter, Jessica Bailey, on April 22, 2003.

Sean and Jennifer Fowler Bohart (BS ’00) announced the birth of a daughter, Sara Jewel, on February 20, 2004. Jenifer is a PhD student at Arizona State University.

Brian Tate (BS ’01, MS ’03) is a Software Engineer II in the Intelligence & Information Systems Unit at Raytheon in Dallas.

Sherri Wilson (BA ’01, MS ’04) is an instructor at Fort Collins College in Durango, Colorado.

Dr. Kimberly Drews (PhD ’02) is a Research Assistant Professor at Texas A&M University.

Matt Gamel (BS ’02) is a graduate student at Texas A&M University.

Juan Lopez (BS ’02) is a graduate student at Texas A&M University.

Jeremy Sain (BS ’02) is a graduate student at the University of California, Berkeley.

Marie Salas (BS ’02) is in the United States Air Force.

Dr. Amando Arciniega (PhD ’03) is an Assistant Professor at St. Mary’s University in San Antonio.

David Dennis (BS ’03) is a graduate student in history at Ohio State University.

Tracey Harris (MS ’03) is a data analyst for GE Wind Energy and resides in Arvin, California.

Robert Hill (MS ’03) is a mathematical statistician for the US Census Bureau and resides in Shady Side, Maryland.

Dr. Nadarajah Kirupaharan (PhD ’03) is an instructor at the Borough of Manhattan Community College. He and his family live in New York City.

Dr. Cynthia Martin (PhD ’03) is an Assistant Professor at McMurry University in Abilene.

Dr. Lenny Ornas (PhD ’03) is an Assistant Professor at McNeese State University in Lake Charles, Louisiana.

Dr. Pantaleon (PhD ’03) and Niranjula Perera (MS ’03) live in Edinburg, Texas where Panta is an Assistant Professor at the University of Texas-Pan American and Niranjula is an instructor at South Texas Community College in McAllen.

Dr. Keith Emmert (PhD ’04) and Soad Abuhawas (MS ’02) were married in December 2003. Keith is an Assistant Professor at Tarleton State University.

Tim Hopkins (MS ’04) is a software engineer at Raytheon.

Dr. Seung-Hwan Lee (PhD ’04) is an Assistant Professor at Illinois Wesleyan.

Dr. Bernard Omolo (PhD ’04) is an Assistant Professor at the University of South Carolina at Spartanburg.

Keith Emmert (PhD ’04) is currently an Assistant Professor of Mathematics at Tarleton State University, Stephenville, Texas.

Daniel Hermann (MS ’03) is an Assistant Professor at Minnesota State University.

Dr. Joseph Tahsoh (PhD ’07) is teaching in the Department of Mathematics and Computer Science At Benedict College, Columbia, SC.

Dr. Mohammed Shalib (PhD ’79) accepted a tenure-track position in Mathematics and Statistics on September 1, 2004 at Prairie View A&M University. He formerly served as systems analyst for Research Services and the Graduate School at Texas Tech University.

Scott Franklin (MS ’00) and wife, Lori, announced the birth of their third child, Zachary Douglas, in December 2004. Their other children are Emily (4) and Timothy (2). Scott is currently employed at Wayland Baptist University as an Assistant Professor of Mathematics.

Samantha Bouquin (MS ’04) accepted a position in the Mathematics Department at Odessa College.

Zachary Kemp (MS ’04) was offered a position as Research Associate in the Mechanical Engineering Department at Iowa State where he is now pursuing a PhD.

Rob Robleto (MS ’97) is working as a modeler and programming consultant with an engineering software company, the Paulin Research Group in Houston.
Endowments

Fundraising efforts and the generosity of donors during the past year provided more than $280,000 to Departmental Scholarship Endowments that now total more than 1.2 million dollars. The chairman of the scholarship committee, Dr. Monty Strauss, coordinates the endowments and oversees the scholarship award process. This year, more than $40,000 will be awarded to undergraduate and graduate students in mathematics and statistics.

Ali Amir Research Award
Dr. Glenn E. Johnston
Dr. & Mrs. Warren Koepp
Keith K. Williams

Ronald M. Anderson Graduate Mathematics Fellowship Endowment
Traci Crawford
Richard L. Hervey
Kelli Johnson
Dr. Istvan Lauko
Robert Lockwood
Jim & Martha Looft
Dr. Gabriella Pinter
Dr. Clint Richardson
Dr. Lawrence Schovanec
Dr. Carol Shreffler
Dr. Dharshana Weerasinghe
Jo White
Dr. John T. White
Kenneth Williams

George L. Baldwin Scholarship Endowment
Dr. & Mrs. Ron Anderson
Marilyn Armstrong
Dr. Lawrence Schovanec
Donald & Beverly Signor
Jo White

Cost of Education
Dr. Petros Hadjicostas
Dr. Lawrence Schovanec

Benjamin Sanchez Duran Mathematics Scholarship Endowment
Dr. Armando Arciniega
Dr. Kimberly Drews
Dr. Bruce N. Masters

Gordon Fuller Mathematics Scholarship Endowment
Sam Donaldson
Dr. Robert G. Kinney
Ronald R. Miller
Dr. Kendall Richards

Fund for Excellence
David Rex Baccus
Albert P. Brown
Catherine M. Brynes
Jack P. Driskill
Donald H. Eudy
DeAnna Gibson
Dr. Xiaoning L. Gilliam
Joan Gordon
Dr. Petros Hadjicostas
Betty A. Herre
Ramona Hicks
Michiel F. Hurt
IBM
Dr. Anatoly Korchagin
Don Lavigne
B. Jerald McClendon
Jon & Jennifer Newman
Randy Parrish
Margaret Plunket
Dennis J. Pugh
Ruth A. Ryker
Paul Schaub
A.C. Sharbutt
Dr. & Mrs. Mohammed Shayib
Dr. Jo Temple
Jaclyn Waldrop
Alan D. Wylie
Terry D. Wynn

Emmett Hazlewood Scholarship Endowment
John E. Ekelund
Dr. Glenn E. Johnston
Madelon Noble
Paul Pierce
James P. Prichard

E. Richard Heineman Scholarship Endowment
Herbert Burnham
Max Dannecker
Sally P. Davis
George Earl Dawson
Dr. Robert G. Kinney
Kay A. Kunka
Ronald R. Miller
Willard J. Raiffeisen
Richard L. Schulz
Horton Struve
Lorrie Sullivan
Gilbert Varnell
Sally S. Whittington
Janet H. Wilcoxen

Robert A. Moreland Scholarship Endowment
Drs. Edward & Linda Allen
Buck Consultants
Dr. & Mrs. Robert Byerly
Dr. Lourdes Juan
Cassandra Brier Kindla
Dr. Anatoly Korchagin
Monika Shepherd
Mark Stamp
Keith & Jill Burness Stowe
Dr. Jo Temple
P.E. Webster
Dr. David Weinberg

Morrison-Broughton Scholarship Endowment
Molly Patilho
Anne Spitler

Patrick Odell Graduate Scholarship Endowment
Dr. Jasper Adams
Dr. Sivanandan Balakumar
Dr. Guang-Hwa Chang
John C. Drummond
Dr. William H. Frawley
David P. Noga
Principal Financial Group
Dr. & Mrs. Thomas C. Smith
Dr. Everett Williams
Dr. Keshung Yu

Outstanding Public School Mathematics Teacher
Drs. Edward & Linda Allen
Dr. Roger W. Barnard
Dr. & Mrs. Robert Byerly
Marvin Crossnoe
Dr. Petros Hadjicostas
Dr. Lourdes Juan
Dr. Anatoly Korchagin
Dr. Hossein Mansouri
Margaret Plunket
Dr. Monty Strauss & Dr. Jane Winer
Dr. Jo Temple

Herman Reynolds Graduate Mathematics Scholarship Endowment
Amy Burgin

Dr. Yssa DeWoody
Dr. Karl Havlak
Dr. Jacob Kesinger
Theresa Urrabazo

SIAM Graduate Mathematics Scholarship Endowment
Dr. Kimberly Drews

Tarwater Family Endowment
Brian T. Christiansen
Richard L. Hervey
Gena Vee John
Dr. Anatoly Korchagin
Monika Shepherd
Dr. & Mrs. Dalton Tarwater
Dr. & Mrs. Patrick Tarwater

Derald Walling Scholarship Endowment
Herbert Burnham
Betty Ford
Linda C. Gilbreath
Marian L. Griffin
Joe & Jill Hill
Christina Johnson
Linda S. Jurva
Laura Kirkpatrick
Alice Price
Sally H. Robinson
Donna Scarborough
Elizabeth Walling
David L. White

Dr. & Mrs. Ron Anderson
Dr. Anatoly Korchagin
Dr. Hossein Mansouri
Margaret Plunket
Dr. Monty Strauss & Dr. Jane Winer
Dr. Jo Temple

Morrison-Broughton Scholarship Endowment

Molly Patilho

Anne Spitler

Dr. Jasper Adams

Dr. Sivanandan Balakumar

Dr. Guang-Hwa Chang

John C. Drummond

Dr. William H. Frawley

David P. Noga

Principal Financial Group

Dr. & Mrs. Thomas C. Smith

Dr. Everett Williams

Dr. Keshung Yu

Outstanding Public School Mathematics Teacher

Drs. Edward & Linda Allen

Dr. Roger W. Barnard

Dr. & Mrs. Robert Byerly

Marvin Crossnoe

Dr. Petros Hadjicostas

Dr. Lourdes Juan

Dr. Anatoly Korchagin

Dr. Hossein Mansouri

Margaret Plunket

Dr. Monty Strauss & Dr. Jane Winer

Dr. Jo Temple

Herman Reynolds Graduate Mathematics Scholarship Endowment

Amy Burgin

Dr. Yssa DeWoody

Dr. Karl Havlak

Dr. Jacob Kesinger

Theresa Urrabazo

SIAM Graduate Mathematics Scholarship Endowment

Dr. Kimberly Drews

Tarwater Family Endowment

Brian T. Christiansen

Richard L. Hervey

Gena Vee John

Dr. Anatoly Korchagin

Monika Shepherd

Dr. & Mrs. Dalton Tarwater

Dr. & Mrs. Patrick Tarwater

Derald Walling Scholarship Endowment

Herbert Burnham

Betty Ford

Linda C. Gilbreath

Marian L. Griffin

Joe & Jill Hill

Christina Johnson

Linda S. Jurva

Laura Kirkpatrick

Alice Price

Sally H. Robinson

Donna Scarborough

Elizabeth Walling

David L. White

Dr. & Mrs. Ron Anderson

Dr. Anatoly Korchagin

Dr. Hossein Mansouri

Margaret Plunket

Dr. Monty Strauss & Dr. Jane Winer

Dr. Jo Temple

Morrison-Broughton Scholarship Endowment

Molly Patilho

Anne Spitler

Dr. Jasper Adams

Dr. Sivanandan Balakumar

Dr. Guang-Hwa Chang

John C. Drummond

Dr. William H. Frawley

David P. Noga

Principal Financial Group

Dr. & Mrs. Thomas C. Smith

Dr. Everett Williams

Dr. Keshung Yu

Outstanding Public School Mathematics Teacher

Drs. Edward & Linda Allen

Dr. Roger W. Barnard

Dr. & Mrs. Robert Byerly

Marvin Crossnoe

Dr. Petros Hadjicostas

Dr. Lourdes Juan

Dr. Anatoly Korchagin

Dr. Hossein Mansouri

Margaret Plunket

Dr. Monty Strauss & Dr. Jane Winer

Dr. Jo Temple

Herman Reynolds Graduate Mathematics Scholarship Endowment

Amy Burgin

Dr. Yssa DeWoody

Dr. Karl Havlak

Dr. Jacob Kesinger

Theresa Urrabazo

SIAM Graduate Mathematics Scholarship Endowment

Dr. Kimberly Drews

Tarwater Family Endowment

Brian T. Christiansen

Richard L. Hervey

Gena Vee John

Dr. Anatoly Korchagin

Monika Shepherd

Dr. & Mrs. Dalton Tarwater

Dr. & Mrs. Patrick Tarwater

Derald Walling Scholarship Endowment

Herbert Burnham

Betty Ford

Linda C. Gilbreath

Marian L. Griffin

Joe & Jill Hill

Christina Johnson

Linda S. Jurva

Laura Kirkpatrick

Alice Price

Sally H. Robinson

Donna Scarborough

Elizabeth Walling

David L. White
been an important mentor and role model for many of our students. Dr. Padmanabhan (Padhu) Seshaiyer was awarded the 2004 Alumni Association New Faculty Award. This award recognized the scope and quality of Dr. Seshaiyer's achievements in areas of teaching, research, and service. Dr. Seshaiyer has received numerous distinctions that recognize his teaching excellence, including the Outstanding Faculty Award, presented by Mortar Board, the SIAM chapter Professor of the Year Award (twice), and induction into the Texas Tech Teaching Academy. Dr. Seshaiyer’s research is in the areas of numerical analysis and computational biology, and his work is currently supported by the National Science Foundation. Dr. Seshaiyer has provided exemplary service to the department that includes his work in organizing the Graduate Student Research Day and the Texas Tech Summer Math Academy.

---

**New Statistical Consulting Laboratory**

The Statistical Consulting Laboratory (SCL) has been established to help meet the demand for statistical consulting services for the Lubbock, TTU, and TTUHSC communities. The two primary goals of the SCL are: 1) To assist clients with comprehensive statistical advice at any level of statistical and computational sophistication, and 2) To improve the training of statistics graduate students in applied statistics through hands-on consulting experience. The director of the SCL is James Surles, Assistant Professor in the Department of Mathematics and Statistics. The SCL can be accessed on the internet at [http://www.math.ttu.edu/~scl/](http://www.math.ttu.edu/~scl/).

---

**Alumni Update**

Last Name: ____________________________  First: ____________________________  Middle Initial: ______________

Street or Mailing Address: __________________________________________________________________________________

City: ______________________________________ State: __________________________ Zip: ______________________

Home Telephone: ______________________________________________________________________________________

Year Graduated/Degree: ____________________  Spouse’s Name:______________________________________________

**Business**

Position: ____________________________  Company Name: ____________________________

Address: _____________________________________________________________________________________________

City: ______________________________________ State: __________________________ Zip: ______________________

Work Telephone: ____________________________  E-mail: _________________________________________________

News for “Alumni News and Notes”:
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________

We ask you to join a group of determined and talented mathematicians who, by supporting the Department, add to its resources and esteem. Your contribution, payable to the TT Foundation, Inc., will be directed as you choose:

$ ______ for the ____________________________ Scholarship Endowment

$ ______ Contribution for the Fund for Excellence

Please mail to Lawrence Schovanec, Chair, Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409-1042
One of the highlights of the Fall Party was having the opportunity to thank Margaret Plunket for her tremendous service to the department over the past 11 years at Texas Tech University. Petros Hadjicostas bids her farewell. She was more than just an amazingly efficient colleague; she was a great friend to everyone in the department. We wish her well.

Pam Cook and Tim Orsak visit with Dr. Kellogg at the Graduate Reunion. Dr. Kellogg, who retired in 2003, was recognized at this event attended by former students and faculty.

math&stats notes is a publication of the Department of Mathematics and Statistics, Texas Tech University. It is published almost once a year for alumni, faculty, students, and other friends of the department. Editorial supervision provided by Naomi Stoehr. Layout and printing by PrinTech.