MathMusings

The Newsletter of the Department of Mathematics & Statistics Volume 16 June 2012

\$1.2 MILLION GRANT WILL TRAIN ELON SCIENCE AND MATH TEACHERS

A \$1.2 million grant from the National Science Foundation will bolster the number of math and science teachers Elon University graduates in the years ahead through a partnership with the Alamance-Burlington School System.

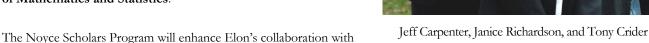
Funding from the NSF's Robert Noyce Teacher Scholarship Program is the largest external award Elon has received to date. The

program promotes the aggressive recruitment of science, technology, engineering and mathematics (STEM) college students and the development of their interest in education.

The fund supports 50 paid, education-related summer internships during the five-year program for first- and second-year students majoring in math or the physical sciences. The NSF funding also covers scholarships for 18 students chosen over a three-year period. Each student will be awarded \$21,900 per year for their junior and senior years. In exchange for the scholarships, students agree to work four years in high-need school systems. **Crystal Edwards** and **Madelyne Rooney**, both math education majors, were chosen among the first three recipients.

Jeff Carpenter, an assistant professor in the School of Education was the principal investigator for the Elon program. Carpenter was joined on the grant application by Associate Professor of Physics Tony Crider and Janice Richardson, an associate professor in the Department of Mathematics and Statistics.

the Alamance-Burlington School System. Most scholarship



recipients will student-teach in the ABSS. Among the internships to be made available to students are teaching assistantships with the Elon Academy, a college access and enrichment program for high school students in Alamance County who come from families with no history of college or with high financial need.

Elon Noyce interns will have STEM-related opportunities at Alamance Community College. The program will be also open to students from Alamance Community College eligible to transfer to Elon. Elon professors believe that Noyce Scholars program would offer an affordable avenue for students who grow up in the area and attend ACC to benefit from Elon's Teacher Education Program.

Eleven Noyce awards have been made to colleges and universities in North Carolina, and 362 nationally, since the program first launched in 2002. While all funded programs are dedicated to training future public school teachers in the STEM subjects, universities are given the flexibility to craft their own initiatives.

One innovative element of the Elon program will be the support provided to graduates during their initial years of teaching. Faculty members will use e-mentoring through online video-conferencing services such as Skype, social networks that can facilitate online conversations, and for students who remain in North Carolina to teach, through school visits and site-based mentors. For more information on the NSF's Robert Noyce Teacher Scholarship Program at Elon University, visit: http://www.elon.edu/noyce. (Excerpts from an E-net article by Eric Townsend 8/29/11)

KATHRYN HUFFMAN '12 RECEIVES OUTSTANDING EDUCATION STUDENT AWARD

Kathryn Huffman, a Middle Grades Education major with concentrations in Mathematics and Social Studies, was recognized as the Outstanding Mathematics Education Student for the Central Region of North Carolina on Oct. 27, 2011 at the annual conference of the North Carolina Council of Teachers of Mathematics.

As a recipient, she received a plaque and cash award for her outstanding achievements and contributions to the Mathematics Education Program. She is pictured at left at a reception given by the Department of Math & Statistics in her honor. Fourteen Elon students have received the annual NCCTM outstanding math education award since 1986, the most recent in 2010 and 2011.



AMANDA BIENZ '12 RECEIVES NSF FELLOWSHIP



Amanda Bienz, a mathematics and computer science double major, received a fellowship this spring from the National Science Foundation in support of her upcoming graduate studies. The fellowships will provide an annual \$30,000 stipend for three years, plus the cost of tuition, which can be used at any U.S. graduate institution. Amanda is the third Elon student to receive this fellowship. Bienz knew in the fourth grade she wanted a career involving computers, and the NSF Graduate Research Fellowship will assist her as she begins a doctoral program in scientific computing this fall at the University of Illinois at Urbana-Champaign.

Bienz will work with large-scale computers for complex modeling, building upon her initial experience with scientific computing through undergraduate research of "magic polygons." She twice participated in the Research Experience for Undergraduates program through the NSF, and during her Elon studies, she created a mobile application to assist children with learning disabilities and a GPS program, "Bread Crumbs," that allows users to backtrack along routes. She also gave a presentation on "Magic Polygrams" at the American Mathematical

Society (AMS) Fall Southeastern Section Meeting at Wake Forest University last September. She presented at the AMS Sectional Meeting in Winston-Salem "Algorithmically Limiting Possible Arrangements of Magic Polygrams."

Joel Hollingsworth, Chair of the Department of Computing Sciences, praised Bienz's work ethic and said she represents a growing trend of highly talented women in a field traditionally dominated by men. "This shows we produce students who are able to go out and win these awards," he said. "Amanda is creating a trail for other students who can now follow her and do similar types of things." (From E-Net post by Eric Townsend 5/11/12)

OUR STUDENTS' ACHIEVEMENTS

Statistics Major **Keyona Osborne '12**, an Honors Fellow, has presented her Honors Thesis, "A Simulation Study of Estimators Using Contaminated Data" at the N.C. Symposium for Women in Mathematics and Statistics. Her presentation at the Student Undergraduate Research Forum (SURF) at Elon was titled "Not your average Estimator: Evidence the Mean Should Retire." She is a member of Omicron Delta Kappa, the national leadership honor society and has been a four-time recipient of the Phillips-Perry Black Excellence Awards for academic achievement. She spent a semester abroad as an exchange student in Ghana at the University of Ghana.

Kileigh Browning '13, a double major in Statistics and Environmental Studies and an Elon College Fellow, presented her research, "An Interaction Between the European Wild boar and Beach Bark Disease in Great Smoky Mountains National Park," at the National Conference for Undergraduate Research (NCUR) in Utah, the Association for Southern Biologists, and SURF. John Moody '13 and Kileigh (both Stats/ENS double majors) completed statistics internships during Winter Term with Dr. Kirstie Doehler and Dr. Ryan Kirk at the Cape Fear River Basin. (Continued on page 3)

MATH MUSINGS 2012

(Student Achievements continued from page 2)

Ted Berkowitz '13 presented his statistics research titled "Confidence Intervals for Proportions Using the Binomial Distribution: Traditional Methods and Improved Alternatives" at SURF. He also presented at the UNCG Regional Math and Statistics Conference in November, 2011.

Sandy Weiss '13 received funding through Elon's Summer Undergraduate Research Experiences (SURE) to work on her Honors Fellows research related to high achieving mathematics students in the Elon Academy. Adrienne Rouiller '13 also participated in SURE and presented her work at SURF titled "Mathematical Modeling of Synapses Related to Epileptic Seizures." Grace Foster '12, an Honors Fellow, is President of Omicron Delta Epsilon Economic Honor Society. She is the Recipient of the Love School of Business David A. Stevens Internship Scholarship, and last summer she interned at Credit Suisse. Mary Savarese '14, an Elon College Fellow, received the CRC Press Freshman Chemistry Achievement Award. Robert Argue '12 was as engineering technician intern with Army Research Lab in Adelphia, Md., last summer. Stephanie Bement '12 served as an intern last summer at Johns Hopkins University Applied Physics Laboratory doing software development in Java and math modeling using Matlab. Emily Buehler '13, an Honors Fellow, was an intern for the Encyclopedia of Human Sexuality project.



First row: Norm McCarn, Crista Arangala, Kathryn Dugan and Rachel Wilson. Second Row: Chris Shill, Chad Awtrey, Jim Beuerle, Trevor Edwards, Todd Lee, Elizabeth Bentley, Alan Russell and Keyona Osborne.

Several faculty and students from the Department of Mathematics & Statistics, pictured to the left, attended the annual meeting of the Southeastern Section of the Mathematical Association of America at Clayton State University in Morrow, Ga., in March. Math major Elizabeth Bentley '12 spoke on "Ford's Condition for Pairwise Comparisons." Statistics major Keyona Osborne '12 presented her talk "Not your average Estimator: Evidence the Mean Should Retire." Mathematics major Kathryn Dugan '12 presented her poster "A Study of Meeting Time Availability for Departmental Committees."

Mathematics major **Trevor Edwards '12** presented his poster "P-adic Numbers" at the MAA conference. He also gave the same presentation at Math Fest. Trevor and his mentor, Dr. Chad Awtrey, coauthored their research which was published in *International Journal of Pure and Applied Mathematics* in 2012. Trevor will attend graduate school in statistics at N.C. State University this fall.

Amanda Coe '12, an Elon College Fellow, is working as an actuary at Metropolitan Life Insurance Company in New Jersey. **Elizabeth Bentley '12**, also an Elon College Fellow, will work for Bank of America. **Rob**

Argue '12 will pursue a master's degree in computer science at the University of Maryland. Kathryn Dugan '12 will attend graduate school at the College of William & Mary in computational operations research. She has an internship this summer with NASA at Langley Field, Va. Kevin Duke '12 will teach in middle school in Saxapahaw, N.C. Courtney Whalen '12 will work for Credit Suisse in the IT department in Raleigh N.C. Mara Bollenbacher '12, an Honors Fellow, will work at Cambridge Associates in Washington, D.C.. as a Junior Research Associate.

Congratulations to our students for their recent awards and recognition! Amanda Coe '12 received the Mathematics Academic Achievement Award and Amanda Bienz '12 received the Math Research Award. Lauren Difiglia '13 and Alison Miller '13 received the Statistics Academic Achievement Award, and Trevor Edwards '12 received the Experiential Learning Awards. Miller was also awarded the Distinguished Service Key from Alpha Phi Omega service fraternity. Congratulations to Amanda Coe '12 and Courtney Whalen '12 for their induction to Phi Beta Kappa on April 16! Grace Foster, Robert Lahue, Helon Wright, Amanda Bienz, Josh Goldstein, Andrew McVicker and Robert Argue (all seniors) have been inducted into Pi Mu Epsilon, the mathematics honorary, along with juniors Jill Padfield, Sandra Weiss and Rachel Mitchener. Leigh Iller '14 was one of 15 students selected this year for the Lumen Prize, a highly competitive \$15,000 scholarship for travel, research and tuition. She will work with her mentor, Janice Richardson, on her research titled "Response to Intervention Techniques as Applied to Sixth Grade Math Content to Promote Student Success."

MATH MUSINGS 2012

NEWS FROM OUR ALUMNI

Lee McCann Booth '65 retired from Allied Beverage Group LLC, in October, 2011 after working as Assistant IT Director there for 14 years. During her career, she worked for IBM, an electronics company, an insurance company and two hospitals. She says that each position was as challenging as it was interesting. One of her favorite memories includes Mr. Vincent Lamphier. Lee was his grader during her senior year, but she also had to take freshman algebra that year, because she skipped it when she was a freshman.

Mary Coolidge Ruth '66 and her husband, Bill, have just concluded 10 weeks of volunteering at Slumber Falls Camp and Retreat Center (owned by South Central Conference, United Church of Christ) in New Braunfels, Texas. Their volunteer service is through the National UCC Partners in Service short term volunteer program. They have been volunteering since taking early retirement in 2003, and this was their 10th assignment. The agency provided their housing and food, and they volunteered 35-40 hours a week. The Texas assignment was a treat because their daughter and her family live in Texas. Mary writes that her Elon math major prepared her for the world of computers. Before she graduated she had three job offers as a computer programmer. She accepted a position at Aetna Life & Casualty in Hartford CT in 1966, and her salary was \$6,000 a year. She was trained on Fortran and Cobol, ran punch cards and worked with IBM when the computers were as big as buildings. As far as she knew, Elon had no computers on campus at that time, and she had never seen one until she started that job.

Aileen Hopkins '67 received an MAT degree in mathematics from Duke University through the National Science Foundation in 1971. She taught high school math for 17 years before becoming a stay-athome mom for her adopted daughter. Since 1984 she has been the manager of the family's horse/hay farm on123 acres in southern Maryland. On May 11, her daughter graduates from Virginia Tech with a Ph.D. in chemistry.

Ashley McHale '01 has been awarded tenure at Las Positas College in Livermore, Calif., as a mathematics instructor. She plays trombone at her church and in the Las Positas Jazz Ensemble. She fondly remembers Todd Lee's analysis class, in which any wrong answer elicited "You Fail!" accompanied by a karate chop.

Lora Taylor Abernathy '01 reports that her new daughter, Shiloh Abernathy, was born at home on February 25, 2 ½ weeks early, weighing 6 pounds even. Everyone is doing well!

Leanna Briles Giles '02 received a master's degree in school administration from UNC-Greensboro in August 2011. She is currently looking for a position in school leadership.

Adam Benjamin '04 is living with his family in Fort Lauderdale, Fla. He received his master's degree in mathematics with a geomatics concentration in 2011. He is now doing program development and teaching at the University of Florida as a Geomatics Specialist (www.mygeomatics.com). He and his wife enjoy have a 2-year-old son, Kai.

Elizabeth (Liz) Moffitt '08 is finishing her fourth year teaching high school math at Southern School of Engineering in Durham (N.C.) Public Schools where she is the Math Department Chairperson. She was selected as her school's Teacher of the Year for the 2011-12 school year, and she was one of 10 semi-finalists for the district's Teacher of the Year. She will finish her M.Ed. in gifted education this summer at Elon. She reports that she frequently shares relevant portions of her Elon senior seminar paper ("Pythagorean Triples, Heronian Triangles and a Relationship of Area and Perimeter") with her students.

Laura Sinden Callinan '08 was married on March 17, 2012 to Marty Callinan. She met Marty her freshman year at Elon when they were both living in Brannock. He worked for EPSN as a statistician at their Connecticut facility for two years while Laura was in graduate school. They are now living in Atlanta where Laura works at the Centers for Disease Control and Prevention as a statistician and Marty works remotely for ESPN.

Matthew (Woody) Cohan '09 has been working at Bank of New York Mellon in Philadelphia since December 2010 and is currently applying to graduate school for his MBA.

Phillip St. Clair '09 has a full-time teaching job with The Fletcher Academy in Raleigh, N.C., working with ADHD students and teaching a wide spectrum of classes including calculus, trigonometry, world history and world geography. He is also the head Ultimate Frisbee coach. In July he will travel to meet his brother in Buenos Aires, and then they will travel to Patagonia. He is trying to start a business of making Cigar Box Instruments. www.hollowboxinnovations.com

Amanda Brown '10 finished her master's degree in public health (MPH) at the University of Texas in December 2011. She is now employed as an infectious disease prevention program consultant in Houston, Texas.

Cindy Goodson Blanchard '10 is teaching mathematics at Central High School in Knox County, Tenn. She enjoys teaching pre-calculus and sharing math love! She celebrated Pi Day this year with pie and pi cartoons and finding birthdays in pi. She is also a mentor teacher for Teach Here, a urban teacher residency program.

David Filonuk '10 has been working for the past two years as a data analyst at CASOS (Computational Analysis of Social and Organiza tional Systems), which is a research group at the School of Computer Science of Carnegie Mellon University in Pittsburgh, Pa. The group develops software that aids in social network analysis. He writes that he has had many opportunities to develop his skills as well as apply material he learned while at Elon. He - credits the Department of Math & Statistics at Elon for giving him a great educational foundation for his career. (*Continued on page 5*)

(Alumni News continued from page 4)

Christy Minor '10 received her master's degree in industrial and systems engineering at N.C. State University in May. She reports that her presentation at Elon on her undergraduate research gave her the tools, such as LaTeX, that she needed to finish her master's thesis.

Amanda Ketner '11 is teaching Algebra I and Pre-Calculus at Woods Charter School in Chapel Hill, N.C. She is really enjoying

her job and cannot believe that her first year of teaching is almost over!

Melissa Turowski '11 is teaching Geometry and Algebra I in Hartford, Connecticut as a participant in the Teach For America program. She is at Weaver High School, one of the lowest performing schools in the state.

RENOVATIONS PROVIDE MORE SPACE FOR THE DEPARTMENT

NEW COMPUTER LAB PLANNED FOR DUKE 205

The Duke Building is undergoing a complete renovation this summer, and we will rearrange our offices so that we occupy almost all of the second and third floors. For the past several years, many of our tenured professors have offices in Long. The renovation will consolidate the offices for all of our fulltime faculty in Duke. The Department of Computing Sciences will move from the third floor to the first floor in the space vacated by Career Services. We are packing up our office furniture and files in anticipation of new carpet and paint. The renovation is scheduled to be completed by July.

The department has also secured funding for a computer lab to be located in Duke 205. Since the incorporation of the statistics minor in Spring 2007 and the addition of the statistics majors and new applied mathematics major in Fall 2010, a dedicated computer lab has been a top priority for the department. With the availability of computer technology, the field of statistics has become a fundamental tool in almost every human endeavor. Thus, the training of students in real-world statistics requires continuous access to appropriate computing power and software such as SAS and R. At Elon, most statistics courses beyond "MTH 112: General Statistics" are designed specifically to be taught in a computer lab. During the renovation of Duke, the classroom in 205 will be converted into a lab to provide instructional support for classes. The new lab will allow the department to offer more sections of its popular course, "MTH/STS 212: Statistics in Application," which requires SAS in a laboratory setting. It is estimated that at least 12 statistics classes will use the lab each year.

The computer lab will also be helpful in the instruction of applied mathematics because, like statistics, this field greatly utilizes computer technology.

We welcome your donations to help us purchase software, document cameras, and apps technology for our new lab. More information about donations can be found on page 8.

NEWS FROM THE FACULTY

Crista Arangula and Todd Lee had an article published with Cheryl Borden '05 titled "Seriation Algorithms for Determining the Evolution of the Star Husband Tole." Crista serves on Academic Council and the Study Abroad Committee. She is the associate director of the Periclean Scholars Program. Each spring the Periclean scholars organize a week on a global issue, so Crista received a grant from the Fund for Excellence to sponsor a weeklong examination of human trafficking. Every winter term she leads a study abroad group to India. The students make science exhibits to leave at schools and museums in India.

Jan Mays is on the General Studies Council and on the Promotion and Tenure Task Force. She and **Karen Yokley** led a session about using Geogebra for teaching mathematics at the NCCTM meeting in October. She also held a workshop on Geogebra for the

Alamance Burlington School System and chaired the members-incourse committee for Phi Beta Kappa. Her daughter, Emily, was married last summer and is an elementary school teacher in Blacksburg Va.

Lisa Rosenberg edited six chapters for a new statistics textbook called "Exploring the Practice of Statistics," by David S. Moore, George P. McCabe. She served on the Glaxo Smith Klein Committee, which chooses female science/math majors to work with a mentor at GSK. She is taking her daughters to their first visit to Disney World in May. Lauren, 9, and Rachel, 7, declare that math is their easiest and favorite subject in school.

(Continued on page 6)

(Faculty News continued from page 5)

Jim Beuerle is the director of the Elon Math Contest, and he is cochair of the State Math Contest. Thirty-nine students from 12 high schools competed this year, and the winner received a full scholarship to Duke. He also gave a poster at SURF titled "An Elementary Solution to an Old Calculus Problem." In addition to his academic endeavors, Jim successfully completed the Rugged Maniac 5K race in Asheboro this spring. The race involves obstacles like bobbed wire and mud slides.

Todd Lee served as a member of the Presidential Advisory Council on Diversity and co-chair of the SACS quality enhancement program. He has completed his last year as area director of the Natural and Mathematical Sciences for the Elon College Fellows. He is on the SACS executive review committee and the NOYCE scholars advisory committee. His daughter, Delta, entered kindergarten this year at age 6, and Jonah is a non-stop energizer bunny at age 3.

Skip Allis is finishing his last class this spring for his doctorate in higher education. He has completed the oral portion of his comprehensive exam. He will work two more years on his dissertation. Skip serves as the first year coordinator of the department. His wife, Celeste, is Dean of Mathematics and Science at Rockingham Community College.

Chad Awtrey has had a prolific year with publications and presentations. He presented nine talks this academic year (four national, five regional) at MathFest, Joint Math Meetings, AMS Sectional, MAA Sectional, NCCTM, Clemson University and UNC-Greensboro. He published four research papers: "Dihedral p-adic fields of prime degree," in the International Journal of Pure and Applied Mathematics with math major Trevor Edwards '11; "Masses, Discriminants, and Galois Groups of Tame Quartic and Quintic Extensions of Local Fields," in the Houston Journal of Mathematics, "Dodecic 3-adic Fields," in the International Journal of Number Theory, and "On Galois Groups of Totally and Tamely Ramified Sextic Extensions of Local Fields," in the International Journal of Pure and Applied Mathematics. He has also recruited four sophomore students from his calculus class to assist in his research including Brett Barkleu (Engineering), MacKenzie McCraw (Math Education), Jermy Guinn (Chemistry) and Chris Shill (Physics). He is teaching them how to write for publication and how to become competitive for graduate fellowships. In addition, Chad has been selected as a CATL scholar for the next two years for which he will have course reassignments and a stipend to support innovative and scholarly teaching projects. He serves on the interdisciplinary writing committee and was on the search committee to hire a writing across the university director. He is the worship director at the Christian Life Assembly in Gibsonville. He and his wife both sing and play musical instruments and they perform benefit concerts at Christmas and Easter.

Laura Taylor published an article in CHANCE in May titled "Competing Risks in Basketball... Competing Risks in Basketball...," which looked at the 2010 NCAA Championship game between Butler and UCONN. Her presentation at the NCCTM conference last fall was titled "Solutions to AP Statistics Exam Question 1." She serves as the department's

statistics program coordinator. She is on the religious and spiritual life committee and the administrative hearing board. She is also the faculty advisor to the women's club volleyball team. She participated in FANS (Faculty Assisting New Students) last summer on move-in day. Andi Metts will be a FANS participant this year.

Alan Russell published an article in the November 2011 issue of the Mathematics Teacher titled "Is There a "Best" Rectangle?" He also published an article with Doug Redington, Elon economics professor, in the Summer 2012 issue of *Teaching Statistics* titled "Creating, Implementing and Integrating a first-year statistics requirement." He also was the invited keynote speaker at the TEAMSwork conference in Chapel Hill in August 2011, and he gave four workshops on origami at the NCCTM state conference in October 2011 in Greensboro. "An Origami Manipulative for Undergraduate Mathematics" was the title of his presentation the MAA Southeastern Sectional Meeting at Clayton State in March 2011.



Amanda Ketner '11, Alan Russell and Richard Haworth at the annual homecoming tailgate party.

Janice Richardson received the Excellence in Service Award from the School of Education in recognition for the faculty member who has served to advance the School of Education, Elon University and the profession. Congratulations to Janice on this prestigious award. Janice serves on the masters of art in math and science committee and was also instrumental in the successful application for the Noyce grant. See page 5.

Helen Walton continues to serve as the secretary, treasurer and historian of Elon's Phi Beta Kappa Chapter. She is also working on the SACS reaccreditation report for the university. Her husband, Clem, passed away on March 14, 2012 after a year-long battle with cancer. (Continued on page 7)

(Faculty news continued from page 6)

Jeff Clark will step down as department chair this year. He has ably served in this leadership position for the past six years. He is also completing a two-year term on the university curriculum committee and he served on the general studies review committee. He wrote an article titled "Derivative Sign Patterns" for the *College Mathematics Journal* in November 2011. He presented "Using PageRank to Teach Markov Chains" at the Southeastern Section of the Mathematical Association of American in Georgia in March 2012. He also presented at the Joint Mathematics Meetings in Boston in January 2012. His talk was titled "Using Escher's Work to Demonstrate Symmetries in the Plane."

Ayesha Delpish, our incoming department chair, co-presented at the Joint Statistical Meeting in Miami in August 2011. Her talk was titled "Understanding P-Values and Statistical Significance: Results of the RPASS." She is on the advisory committee for the Center of the Advancement of Teaching and Learning and on the civic engagement advisory committee. She also serves on the mathematics education advisory board (Chaired by Janice Richardson). This committee was charged with investigating curriculum changes that would keep the mathematics with teaching licensure degree requirements in line with new education board standards. Ayesha, Todd Lee and Skip Allis received a grant aimed at infusing the general statistics class with case studies in diversity issues.

Kirsten Doehler is the chair-elect of the athletics committee and the advisor for the men's club volleyball team. She co-authored an article titled "Patterns of Self-Reported Alcohol Use, Depressive Symptoms, and Body Mass Index in a Family Sample: The Buffering

Effects of Parentification" in the April 2012 issue of *The Family Journal*. She also co-authored an article published in the Journal of Marital and Family therapy titled "Assessing Family Caregiving: A Comparison of Three Assessments of Retrospective Parentification" last October. She co-authored with **Todd Lee** an article titled "Gross Colour Pattern is Used to Distinguish Between Opponents During Aggressive Encounters in a Lake Malawi Cichlid" in *Ecology of Freshwater Fish*. Kirsten and **Laura Taylor** co-authored a poster at USCOTS in June of last year on "Faculty Perceptions Toward Statistics."

Karen Yokley presented "Investigations on a Mathematical Model for the Simulation of Epileptic Seizures" at the AMS Meeting in Winston Salem, N.C. in September 2011. She also presented "Math and Malaria: How Probability Can be Used to Describe Disease Spread" at Sonia Kovalevsky Day at N.C. State University last October. Her article, "Sensory Irritation Response in Rats II: Recovery and Dose-Dependence," will be published in the *Bulletin of Mathematical Biology* in July, and she presented this research at the Joint Mathematics Meetings in Boston in January. She is interested in Mathematical art, and one of her paintings was displayed at the Joint Math Meetings in Boston. She serves as chair of the admissions committee.

Erenebaater Chadraa (Aggie) is leaving Elon for a position at Minnesota State University as an assistant professor of mathematics. He will be helping develop their statistics and actuarial science programs.

BABIES BORN TO OUR PROFESSORS







Karen and Ben

Chad and Lily

Kirstie and Lincoln

Two faculty members in the Department of Math & Statistics gave birth to babies on the same day! Benjamin Yokley Luke born on February 17, 2012 weighing 8 pounds to Assistant Professor Karen Yokley (to the left) and her husband, Nicholas Luke. That same day, Assistant Professor Kirstie Doehler (to the right) and husband Philip Ramsey welcomed their second child, Lincoln Bernard Ramsey, weighing 5 pounds, 11 ounces.

On June 6, 2012, Chad Awtrey and his wife, Connie, became the proud parents of Lily Marie Awtrey, weighing 7 pounds, 6 ounces. We are thrilled to welcome these newest members of the department.

PROCEDURE FOR DONATIONS TO THE DEPARTMENT

The Office of University Advancement has made it easier for donors to send their gifts online directly to departments within the College of Arts and Sciences at www.elon.edu/makeagift. Please be sure to select the Department of Mathematics and Statistics from the drop down menu so that your gift can be appropriately designated. This procedure enables alumni, parents and friends to give back to the department that has touched them the most. These donations help us provide money for scholarships and other projects within the department.

The Department of Mathematics and Statistics recognizes with grateful appreciation the following donors for school year 2011-12: Abigail Baumann '11, Jim Beuerle, Andy Blanchard '10, Mara Bolenbacher '12, Lucia-Lee Booth '65, Aundrea Carter '08, Bob Davis '03, David Blevins, Amy Eubanks '11, S Feldman '10, Amy Flower '04, Melissa Gaisser '10, Nicholas Harrison '02, Horace Holloway '87, Karen Hooper '09, Michael Landreth '11, Michelle Leibowitz '88, Mark Lovin '88, Holly McDow '99, Ralph Mueller '83, Tammy Newbern, Joshua Nichols '10, Ashley Noronha '01, Rose Prey '01, David Runkle '06, Stanton Sandford '14, Randy See '85, Lori See '85, John Swain, Lori Tyler '92, Helen Walton, John Watts '80, Meredith Webster, Deborah Wheat '70, Harold Williams '66, Gary Wilson '12 and Briana Yoho '05.

NEED EMAIL ADDRESSES

Each spring we contact all Elon math alumni by email to seek news for this publication. So far, we only have the email addresses for half of all the Elon math graduates. Please send us your email address so you can be a part of our network. Send it (and any news) to Helen Walton in the math department at walton@elon.edu. We continue to circulate your responses to the math faculty and our retired faculty.

CHECK OUT OUR WEBSITE

To read the latest information about the department, see our photos and get our email addresses and phone numbers, visit our website at www.elon.edu/e-web/academics/elon_college/mathematics_statistics/.

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Helen Walton Newsletter Editor CB 2320 Elon, NC 27244 Telephone 336-278-6242 walton@elon.edu Department of Mathematics and Statistics Ayesha Delpish, Chair CB 2320 Elon, NC 27244 Telephone 336-278-6204 adelpish@elon.edu

Helen Walton Department of Mathematics and Statistics 2320 Campus Box Elon, NC 27244 Nonprofit Organization U. S. Postage PAID Permit No. 1 Elon, NC 27244