



Murray State University

DIMENSIONS

Department of Mathematics and Statistics

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Editors: K. Renee Fister, Kenny Fister, & MeLissa Cooper

Chair's Corner

Greetings from the Department of Mathematics and Statistics. We are pleased to have the opportunity to inform our alumni, friends, and the university community of the many activities taking place in the department and to highlight the accomplishments of the faculty, students, and alumni. Our department's main goals are to prepare our students for a successful and rewarding life and provide society with educated and productive citizens. Although our faculty's first priority is quality teaching and student success, they also continue to be very productive with publications in national/international research journals and presentations at state and national conferences.

The department continues to be very successful with many accomplishments by faculty and students as highlighted at various places within this newsletter. Among notable events is the graduation of baccalaureate and masters students, the granting of tenure and promotion, the hiring of new faculty, and a new departmental secretary. In summer 2004 Dr. Andrew Siefker resigned from MSU and accepted a position in the mathematics department at Angelo State University (Texas). In August 2004 Ms. Shelle Patterson and Mr. Wyatt Alverson joined our faculty as lecturers. Shelle received a M.S. Degree from Baylor University and previously taught at Moberly Area Community College and at Truman State University. Wyatt received a M.S. degree from our department in 2003 and previously taught as an adjunct instructor. Effective August 04, Dr. David Roach was granted tenure and promoted to associate professor as did Dr. Scott Lewis in August 2005. Also in August 2005, Dr. Wesley Calvert joined our faculty. Wesley received the Ph.D. degree from the University Notre Dame and his area of research is Mathematical Logic and its application to computability and model theories. Effective August 2006, Drs. Du-bravko Ivansic, Chris Mecklin, Kelly Pearson, and Tan Zhang will be granted tenure and promoted to associate professors.

Perhaps what could have been the most challenging change was the departmental secretarial position. After fourteen years as department secretary, Teresa Loveridge retired from MSU. Teresa was a vital part of our team and, while we wished her the very best, we were not looking forward to finding a replacement. A search was conducted and Melissa Cooper moved from a position in the University Libraries to our secretarial position. The transition has been very smooth and the students, faculty, and I are fortunate to have Melissa as our department secretary.

As you can surmise from all the above, the department's success is due to the exceptional effort of the faculty, devoted staff, and students, accompanied by the support and

encouragement from our alumni. We thank you for your support and welcome your input.

Best Wishes,
Donald Bennett

New Faculty



Dr. Wesley Calvert joined the department in the Fall of 2005, after finishing his Ph.D. at the University of Notre Dame the previous spring. His research is in mathematical logic and computable algebra, and he is involved in collaborations in this area with researchers at several US institutions and the Siberian Branch of the Russian Academy of Sciences. He is originally from the town of Carterville, in Southern Illinois.

Euclidean Math Club



Highlights

Student Math Colloquium about Chaos Theory
<http://euclideanmathclub.spaces.msn.com/PersonalSpace.aspx>

The department as usual is teaching lots and lots of classes amounting to about 9,000 credit hours per semester. Dozens of Bachelor's degrees have been awarded in mathematics. We continue to do this with an enthusiasm that helps maintain Murray State's status as an institution that provides high quality teaching. The following students have completed or are completing their masters: (1) Despina Stavri (Thesis under Maeve McCarthy)- May 2005; (2) Allen Shore (Non-thesis option) - December 2006; (3) Nathan Hirtz (Thesis under Chris Mecklin) - May 2006;(4) Irene Smith (Thesis under Kelly Pearson) - May 2006; (5) David Shaffer (Thesis under Scott Lewis) - August 2006; (6) Mandy Frost (MAT) - May 2006;(7) Allison Green (MAT) - May 2006.

The department's reputation has also been enhanced in other areas. Several members of the department have published literally dozens of papers in a variety of national and international journals focusing on mathematical research or the teaching of mathematics. A few examples of the journals in which they appear will illustrate the flavor of this effort by the department: SIAM Journal of Applied Mathematics, Algebraic and Geometric Topology, Algebra Colloquium, and MSU Teaching Chronicles. We are also obtaining more and larger grants than ever before from local and national agencies. Renee Fister is the PI with Co-PIs Maeve McCarthy, Chris Mecklin and several Biology professors (David Roach will be involved in the later stages) on an NSF grant *Biology and Mathematics in Population Studies* (BioMaPS). It's for \$594K over 5 years and will train 25 math & biology students to do research together. We have also had a National Science Foundation grant for the modeling of cancer therapy and several other grants in the last two years. For 2006-07 Maeve McCarthy (who is on sabbatical in the spring) became the 8th member of the department to win the Presidential Research Fellowship given by Committee on Institutional Research at Murray State University. (Previous winners include: Bennett 80, Jones 81, Mahfoud 82, Bell 87, Prophet 97, Donnelly 99, and R. Fister 02.)

In addition to all of this activity, members of the department continue to make contributions to the organizational structures and functions that keep the academic enterprise here and elsewhere going. Ed Thome is finishing his second (and he says last) year as President of the Faculty Senate. Members of the department serve as, on or with: the Advisory Board of the KY Early mathematics Testing Program, the Postsecondary Placement Policy Committee of the KY Council on Postsecondary Education, MSU's Teacher Quality Institute on Mathematics Alliance, K-8 teachers as a consultant for Tiered Mentoring Project, AWM as a co-organizer for summer workshops 05 and 06, MAA & SIAM committees, and a series of lectures in the spring of 2005 on quantum computation as well as all of the regular committee work around the department, college and university.

Wayne Bell continues to be puzzled by the fact that his retirement to half time has not led to the total collapse of the department.

-Wayne Bell

Want more? Then please check us out on the web at www.murraystate.edu/qacd/cos/math/MathStatsFront.htm

Transitions

Please email renee.fister@murraystate.edu for information for the next newsletter!

Jon Ernstberger received his B.S. in 2001 and his M.S. in 2003. He is currently at North Carolina State University in the Applied Mathematics Ph.D. program. His research interests include control theory, numerical analysis, smart materials and optimization. He is planning on graduation date of August 2007.

Stacey (Lawler) Ernstberger received her B.S. in 2003. She is currently at North Carolina State University in the Computational Mathematics Ph.D. program. She will receive an M.S. in Applied Mathematics in May 2006. She anticipates completing her Ph.D. work in August 2008. Her research interests include inverse problems, modeling (optimization), control theory, and partial differential equations.

Shauna Mullins completed her B.S. in 1997 and her M.S. in 1999. She is currently the Developmental Mathematics Coordinator at the Murray State University Community College.

Andy Perkins graduated from MSU with a B.S. in 2001 and an MS in 2003. Currently a Ph.D. student in the Department of Computer Science at the University of Tennessee at Knoxville, Andy is doing research in computational biology, graph theory, and parallel computing. He expects to finish up in Spring 2007.

Carrie (AuBuchon) Perkins completed her B.S. in 2003. She is a current Masters student in the Department of Mathematics at the University of Tennessee at Knoxville while teaching middle school math at a local private school. Her research interests are mathematics education.

Richard Robinson finished his M.S. in 2002. Richard is at the University of Tennessee, Knoxville working in the Math Ph.D. program. Initially his interests were in Approximation Theory, but his final research field has yet to be decided.

Justin Scott received his B.S. in 2003. He will complete his Graduate Degree in Administration at Murray State in May 2007.

Jonathan Watkins is currently teaching at Murray High School while he continues to work on a Master's in Secondary Education at MSU. He completed his B.S. in 2003.

-Wyatt Alverson

2005-2006 Scholarships

Max Carman Senior Scholarship

(Supported by the Max G. Carman Scholarship Fund, endowed by the Carman family with additional funds from alumni contributions)

Craig Collins

Max Carman / Euclidean Math Club Junior Scholarship
(Supported by the Department and the Euclidean Mathematics Club)

Not awarded

Allbritten Mathematics Scholarships

(Supported by the Allbritten Scholarship Fund, endowed by Evelyn Lynn Allbritten with additional funds from alumni contributions)

Sophomores	Juniors	Seniors
Morgan Dooms Jake Elliott	Ryan Marchetti	Brandon Hale Jessica Ivy Stephanie Kelly Laurie LeCompte Kendall Lynch Nicole Parker Joshua Smith Kacee Stonecipher Amanda Wallace

Freshman Scholarships

(Supported by the Department of Mathematics and Statistics, This scholarship fund was created and partially funded from sales of a book written by Professors Gary Jones and Wadi Mahfoud. The remaining funds are from alumni contributions)

Stephanie Baggett	Dawson Springs, KY	Dawson Springs HS
Carl Benson	Murray, KY	Murray HS
Allie Haertling	Nashville, IL	Nashville HS
Jessica Lovett	Paris, TN	Henry Co HS
Keri McCloud	Clarkton, MO	Risco HS R-II
David Morrison	Kirksey, KY	Calloway Co HS
Amanda Moss	Hopkinsville, KY	Christian Co HS
Jennifer Ring	Clinton, KY	Hickman Co HS
Megan Sommer	Mascoutah, IL	Freeburg HS
Michael Whitby	Corydon, KY	Henderson Co HS

We would love to hear from you!!! Please contact us at 270-809-2311 and let us know what you are doing. If you prefer email, please write to renee.fister@murraystate.edu. Thanks for all your support over the years!!!