



The University of Dayton _____ **1998**
Mathematics Department
NEWSLETTER

Editor's Note: In early March, every alumna and alumnus of the mathematics department should have received a hard copy of this newsletter via the US Mail. If you did not receive your copy, please send your correct mailing address to the alumni office.

CHAIRPERSON'S MESSAGE

The past year was a busy year for all of us here at UD. A significant amount of time during the early part of 1998 was devoted to the search process which ended when we hired two new faculty members: Dr. Wiebke Diestelkamp, who earned her degree in statistics at the University of Wisconsin at Milwaukee, and Dr. Jennifer Hontz, who earned her degree in algebra at the University of North Carolina. With the retirement of Ben Rice in December of 1998, and the pending retirement of Bill Friel and Brother Joe Stander in May of 1999, we find ourselves going through the same process again this year. Our goal is to hire two new people who can strengthen the research currently going on in the areas of set-theoretic topology and ordinary differential equations.

Meanwhile, the folks at Enrollment Management have done a fantastic job of recruiting students. The first year class in the fall of 1998 was the largest entering class of recent history. We began the year with 1835 new students, about 150 more than our enrollment target. We are one of the first schools to offer on-line applications via the web, and this application method received a lot of activity. Needless to say, most of these students took at least one mathematics course during their first year, so our classes were all filled beyond a desired capacity. All indications are that we will have another successful year, but a serious effort will be made to hold the class to the target size because of the problems of supplying adequate housing for the students. One new requirement will be in place for entering first year students in the 1999 class: they will all be required to purchase a UD computer which will be loaded with Lotus Notes and the professional version of Microsoft Office Suite. This poses a tremendous opportunity, as well as challenge, to the faculty. For instance, the students in our introductory mathematics classes will all have access to a spreadsheet, which can be used as a tool for solving problems; at the same time, we do not want to use this tool as a "black box." To prepare for this reality, faculty will be busy learning how to use home pages on the web and other ways to integrate the technology into their teaching. We are also hoping to increase the number of classrooms that are equipped with technology; to date, we have recently installed a projection system and digital camera in one of

John Cotter	Dr. Mark and Dr. Andrea Deis
Kathleen Hurley Dietz	Donald Ehrlich William Elrod
Dr. Robert Gaskell Joan Giardina	Dr. and Mrs. Richard Grote
Dr. Mark and Mary Koehler	Mr. And Mrs. Gary Lammers
Philip and Sarah Militello	Mr. And Mrs. Gerald Miller
Mr. And Mrs. George Morrison	Dr. Charles Mott and Alicia Fernandez-Mott
Edward Neuschler and Andrea Hay	Dr. Jane Pendergast
Dr Laura Peterson and Gene Kroupa, Jr.	Dr. Gregory Rouan
Mr. And Mrs. William Scharf	Patrick Schuler
Dr. Peter Schuler	Dr. and Mrs. W. Richard Schuler
Dr. and Mrs. Righard Segers	Cornelius Eugene Steuerle
Dr. Jude Stratford	Mr. And Mrs. Terrance Stretch
Dorothy Szorc	Frank and Marilyn Szorc
Mr. And Mrs. Daniel Valentine	Dr. and Mrs. Daniel Voss
Philip Vukovic	

Additional contributions to the Fund may be made at any time; they may be sent directly to the Department of Mathematics and we will deposit them into the correct account, or you may send them to the University Advancement Office. (The account number for the Fund is 49018.)

THANKS!

We wish to acknowledge the alumni, friends and faculty who have specified that their gifts to the University of Dayton be directed to the Department of Mathematics. Your generosity has provided us with matching funds to purchase computer projection systems and a digital camera for one of our larger classrooms and one of our computer labs in Sherman Hall. These have been substantial investments that will enable us to begin integrating technology into appropriate classes. According to the University Advancement Office, the following people have made a total of over \$5,000 in such designated gifts to the Department of Mathematics since January 1998:

Jonathan Baniak (81)	Charles Brinkman (70)
Paul Eloë	Susan Enyart (81)
Tom Gantner (62)	Michael Hartke (66)
Aparna Higgins	Sara Hinders (74 & 76)
Lawrence Hoffman (67)	William Huster (78)
Robert Kasprzak (68)	Francis Marchiony (80)
George Morrison (82)	Charles Mott (61)
Edward Mykytka (76)	Timothy Rice (88)
James Sebastian (95)	Robert Springer (77)
Kevin Thomas (76 & 96)	Tony Zhang (97)

Included in the above total are employee matching gifts from the following corporations and foundations:

Anderson Consulting Foundation
 Eli Lilly Foundation
 Independent Colleges Indiana
 Lockheed Martin
 NCR Foundation

FACULTY UPDATE

Full Time Faculty

Wiebke Diestelkamp, 1998
Paul Eloe, 1980
Bill Friel, 1963
Tom Gantner, 1966
Bob Gorton, 1969
Aparna Higgins, 1984
Jennifer Hontz, 1998
Muhammad Islam, 1985
John Kauflin, 1966
Joe Mashburn, 1981

Jack McCloskey, 1965
Harry Mushenheim, 1965
Jerry Neff, 1990
Paula Saintignon, 1983
Carroll Schleppe, 1984
Gerry Shaughnessy, 1967
Joe Stander, SM, 1959
Ralph Steinlage, 1966
Jerry Strange, 1958

Part Time Faculty

Dipankar Basu, 1998
Martha Carter, 1997
Eric Cheney, 1989
Timothy Daniel, 1998
Bob Finnegan, 1985
Don Jurick, 1991
Karen Mickel, 1992

Shirley Ober, 1977
John Pfetzing, 1997
Betty Schneider, 1989
Mardjan Shokoufi, 1997
Les Steinlage, 1969
John Wulber, 1998

Professors Emeriti

Stanley Back, 1998
Ben Rice, 1998

Richard Peterson, 1998

ENGINEERING TECHNOLOGY MATHEMATICS FACULTY TRANSFER TO MATHEMATICS DEPARTMENT

Prior to 1997 the Engineering Technology Division taught its own mathematics courses. Last year it was decided to have the technology students take their courses from those offered by the mathematics department. As a result of this decision, Professors Carroll Schleppe and Jerry Strange, the faculty members who taught the engineering technology mathematics courses, have been transferred to the mathematics department. Professor Schleppe brings fifteen years teaching experience and is presently concentrating on learning to teach future mathematics teachers. Professor Strange has been at the University for forty years and is teaching the remaining engineering technology mathematics courses that must be offered to phase out that sequence. He plans to retire at the end when the phase out is completed. Both Professors Schleppe and Strange are active in the mathematics education and in the University community.

NEW FACULTY

We hired two new faculty members beginning August, 1998 to replace Professors Stan Back and Dick Peterson, who recently retired. We are seeking to hire two new faculty members for August, 1999, to replace Professor Rice, who has retired, and Professor Stander, who has announced his retirement. Wiebke Diestelkamp earned a Ph.D. in mathematics with a specialization in probability and statistics from the University of Wisconsin-Milwaukee in May 1998. She wrote her dissertation on "Projections, Decompositions and Parameter Inequalities for Orthogonal Arrays." Her research interests include experimental design and combinatorial theory. Wiebke is a member of the MAA and the AMS, and she is an Ohio Next fellow of the MAA. Jennifer Hontz earned a Ph.D. in mathematics with a minor in statistics from North Carolina State University in August of 1998. The title of her dissertation is "Some Kac-Moody Lie Algebras of Indefinite Type". Jennifer is a member of the MAA, the National Council of

Teachers of Mathematics (NCTM), and the Ohio Council of Teachers of Mathematics (OCTM). She is a Project NExT fellow in the MAA. Her research interests include Lie Algebras and issues related to mathematics education. Jennifer's other activities include giving a talk to the undergraduate math club as well as beginning to work with Geoffry Dietz on his honors thesis.

FACULTY ACTIVITIES

Wiebke Diestelkamp was chosen to be an Ohio NexT (New Experiences in Teaching) fellow of the MAA and has attended a NexT workshop held in conjunction with the Fall Meeting of the Ohio Section of the MAA in October in Columbus. Wiebke was also invited to deliver a presentation at the December meeting of the Dayton Chapter of the American Statistical Association at Wright State. Paul Eloie organized a Special Session in Boundary Value Problems for an AMS sectional meeting in Louisville in March. Youssef Raffoul (MTH 87), chairs the mathematics and computer science department at Tougaloo College in Jackson, MS., Eric Kaufmann (MTH 91), currently a faculty member at the University of Arkansas at Little Rock, and Joe Coyle (MTH 93), who just completed a Ph.D. in applied mathematics at the University of Delaware, delivered papers in this session. Aparna Higgins gave a 15-minute talk at the Toronto Mathfest on "Beyond the Classroom: Preparing Professionals," and conducted a 4-hour workshop on "Undergraduate Student Research -- How to make it work" for Fellows of Project NExT. In addition, she was the keynote speaker at the Spring Meeting of the Indiana Section of the Mathematical Association of America, held March 20-21, 1998 at Ball State University in Muncie, IN. And talked on "Undergraduate Research in Demonic Graphs and Pebbling," and she gave an invited plenary talk on "Demonic Graphs and Undergraduate Research" at the MAA Michigan Section Meeting on May 1, 1998. The meeting was held at Western Michigan University, Kalamazoo, MI. She has been appointed co-director of Project NExT, which is a program designed to introduce recent Ph.D.s in mathematics to issues and concerns in the teaching of undergraduate mathematics. About 65 Fellows are chosen each year. Project NExT provides for many panel discussions and short courses on various aspects of undergraduate mathematics, and it provides mentoring for the new entrants to the profession by experienced faculty members. Project NExT is funded by the EXXON Education Foundation and the is administered by the MAA. The director is T. Christine Stevens, Chair of the Department of Mathematics at St. Louis University. The other co-director is Joseph A. Gallian, of the University of Minnesota-Duluth. She was elected to the office of President-Elect of the Ohio Section of the MAA. Her term as President will be during the academic year 1999-2000. Jennifer Hontz was chosen to be a Project NExT fellow of the MAA. She has attended two NExT workshop, one held in conjunction with the Summer Meeting of the MAA in Toronto in July, 1998 and the second held at the joint meetings of the MAA and the AMS in San Antonio in January, 1999. She is on the steering committee for the OCTM conference which will be held in Dayton in September, 1999; she attended the OCTM conference in October, 1998 in Akron. Muhammad Islam gave an invited presentation at the Second International Conference on Differential Equations and Dynamical Systems in Waterloo, Canada, in August. He was Co-chair of a Session on Aerospace Engineering, 15th Southern Biomedical Engineering Conference, Dayton, March 1997.

RETIREMENTS

Ben Rice retired from the UD faculty in May of 1998. Ben received his B.S. from St. Louis University in 1955 and his M.S. from Ohio State University in 1961. He joined the faculty of the Mathematics Department in 1960. During his tenure at UD, he served on the constitutional committee for the Academic Senate, the Faculty Board and the Academic Affairs Committee of the College of Art and Sciences and then served as secretary and vice president on each of those committees. He served two terms as President of the Uni-Day CU during its early days and co-authored or authored eleven textbooks (with Jerry Strange for ten of them). Most of these had

multiple editions so that over a 25 year publication span he has seen 25 books go into production. These include books such as Plane Trigonometry (7 editions), College Algebra (4 editions), Finite Mathematics, Calculus with Technical Applications(2 editions), Ordinary Differential Equations(3 editions) and Applied Analysis (2 editions). The text on Applied Analysis has been used at over 50 graduate schools in the country and in the late 1980's was on the recommended buying list for students in a relevant course at Oxford University in England. In 1978 Ben was named Professor of the Year.

UNDERGRADUATE ACTIVITIES

Kristin Blenk gave a talk entitled "Counting Periodic Orbits of Linear Maps on a Torus" at Miami University's 24th Annual Pi Mu Epsilon Student Conference, on September 26, 1997. Other students who attended were: Geoff Dietz, Rob Dollinger, Stephen Hartke, Andrew Hetzel, Rachael Kenney, Ryan Reinhart, Kimberley Rodak, Brian Woerner. Stephen Hartke, Andrew Hetzel, T.J. Highley, Geoffrey Dietz, Ryan Reinhart, Rachel Kenney, Kristin Blenk and Joe Huelsman participated in the Putnam Mathematical Competition in December, 1997. Andrew Hetzel presented a poster, "On Ahmes Expansions of Egyptian Fractions of Length Two", at the Joint meetings of the AMS-MAA in Baltimore in January, 1998. Andrew won a \$100 prize for his poster. The team of Kristin Blenk, Matt Carroll and Geoffrey Dietz won the ranking of Meritorius in the 1998 Mathematical Contest in Modeling. Also participating were teams of Andrew Hetzel, Jon Johnson and Jennifer Mifflin, and Rob Dollinger, Stephen Hartke and Ryan Reinhart. In March, the MAA Student Chapter and PME hosted the second annual High School Mathematics Contest. 34 teams participated. The competition brings to UD many high school teams of four students each on a Saturday in March for a morning of problem-solving and mathematical companionship. The contest is entirely planned by the students of the two organizations, who choose the problems, grade them, judge them, award trophies, organize lunch and manage the finances. All the participants get a T-shirt designed by the clubs and lunch. This contest provides UD with tremendous exposure of a positive, academic nature to local high school students and their advisors. Several students presented papers at the MAA Ohio Section Spring meeting held at John Carroll University. Stephen Hartke spoke on "Edge Density of Iterated Line Graphs," Andrew Hetzel spoke on "How perfect can a number be?" and Rachael Kenney spoke on "How to host a math contest." In the summer, three students participated in Research Experiences for Undergraduates programs. Kristin Blenk participated at Worcester Polytechnic Institute, MA, Geoffrey Dietz participated at Hope College, MI, and Stephen Hartke participated at the University of Minnesota-Duluth. At the Toronto MathFest in July, Stephen Hartke presented a 15 minute paper in the Pi Mu Epsilon Student Paper Session. Stephen's paper was entitled "Maximum Degree Growth of the Iterated Line Graph." It is based on work done at UD as part of his Honors thesis. Andrew Hetzel gave a 15-minute presentation in the MAA Student Paper Session. His talk was entitled, "Ahmes Expansions of Rational Numbers of Length Four." This was an extension of the work he did in the summer of 1997 at the Research Experiences for Undergraduates Program at the University of Tennessee. Both Hartke and Hetzel won awards of \$150.00 for their papers. These awards are based on both the mathematical content and the presentation. Andrew Hetzel won the Senior of the Year award and Geoffrey Dietz won the Sophomore of the Year award.

GRADUATE ACTIVITIES

Jodi Barnett obtained a Master of Science degree in applied mathematics. Jodi, under the supervision of Jack McCloskey, performed "A statistical study of temperature variations across the USA." Lingqing Zhang obtained a Master of Science degree in applied mathematics. Lingqing, under the supervision of Paul Elloe, studied "Comparison of Green's functions for a family of multipoint boundary value problems" for her mathematics clinic project. A joint paper has been submitted for publication to the Journal of Mathematical Analysis and Applications.

Lingqing is currently pursuing a masters degree in computer science from at Wright State University.

ALUMNI ACTIVITIES

A portion of the following information was obtained from the UD Quarterly.

Herbert Dershem Jr. (MTH 65) is a professor at Hope College in Holland, MI.

Kathleen Wambolt LaBeau (MTH 65) lives with her husband, James (65 IEN) in Arlington, IL. James is a sales manager for Maxxar Corp. And Kathleen teaches at Harper Junior College. The couple has six children.

Tom Crellin (MTH 67) is retired from the U.S. Navy Reserve with the rank of captain. He works for DFAS-Cleveland Center; he and his wife, Cindy, also sells real estate with Sweda, Sweda and Associates Better Homes & Gardens. They live in Avon Lake, OH.

Claudia Dispennett Fragnoli (MTA 67) is a vacation coordinator for Marriott International in Darien, IL, but writes that she and her husband, Raymond, are too busy raising their daughter, Maria, to do much traveling themselves. Claudia notes, " We have not seen UD since the 25th reunion in 1992, but Dr. Steinlage still made me nervous - even then! UD gave me the opportunity to learn that play is part of work, and for that I have been most grateful Go Flyers!

Barbara Chamberlain Carruth (EDS 68) and James Carruth (EDS 69) live in Dayton where Barbara is a professor of mathematics at Sinclair Community College. She coordinates summer calculator workshops for Teachers Teaching with Technology and she will co-chair the 1999 annual conference of the Ohio Council of Teachers of Mathematics.

Barbara Mondl Wulff (MTH 68) is on temporary assignment at the DOE facility, Mound Applied echnologies, the new Babcock & Wilcox facility, in Miamisburg, OH. She writes: "I have enjoyed being able to visit campus again after all these years. I am especially happy to see the new entrance and law school take shape. Any alumni from 1968 that would like to contact me while I am in Dayton can do so via e-mail at Barbara.K.Wulff@Mcdermott.com. I was happy that my daughter chose UD as her college so that we could share college experiences. She even lived in my old off-campus house for two years.

Michael Peters (MTH 68) is a project manager at Blue Cross/Blue Shield of North Carolina. He has been with the company for 25 years and is also an officer in the company's Toastmaster Club. Membership also includes UD grads,

Bill Bennington (65) and Brian Cornell (96). Michael and his wife, Susan, live in Durham, NC.

Neil Bitzenhofer (MTH 69) is now a principal software test engineer. He had been at Unisys for 20 years. Neil and his wife, Angela, live in Apple Valley, MN and have three children. Activities include soccer, church functions, bowling, fantasy football, racquetball and surviving long winters.

Jeff Vaughn (MTH 70) is a corporate information officer for the Department of Energy's field office in Miamisburg, OH. He and his wife, Shari, live in Madison, IN.

Barbara Conlon Stevens (MTH 71) is a senior director and head of clinical research operations for Agouron Pharmaceuticals in San Diego. She and her husband, Bill, live in Del Mar, CA, and have three children, Lisa (3-4-77), Katie (1-15-88), and Jeff (10-11-89).

George Fueher (MTH 71) is a senior vice president for Enviro Source in Horsham PA. He lives with his wife, Camille, in Maple Glen, PA.

Kenneth Flischel (MTH 76) is an associate attorney for Ohio National Financial Services in Cincinnati. He and his wife, Kathy, live in Lawrenceburg, IN.

Connie Kusmer Hodges (MTH 76) and Steven Hodges (MTH 77) live in upper Arlington, OH with their children John, Jenny and Matthew. Stephen is an associate vice president of asset and liability management for Nationwide Financial Services.

Michael Okita (MTH 80) is a lieutenant colonel in the U.S. Army and serves as battalion commander at Fort Lewis in Washington state. He and his wife, Lynn, have a daughter, Lauren.

Mary Case Ryan (MTH 80) and her husband, Jim Ryan (MCT 80) live in Lenexa, KA with their children, Matthew and Kathryn. Jonathan Baniak (MTH PHY 81) and his wife, Natalie, announce the birth of Michael Aldean (10-13-97). Jonathan is an engineer/scientist for Lockheed Martin Mission Systems in Gaithersburg, MD. He looks forward to his biannual recruiting trips to UD: "Each trip so far includes Milano's, the Pine Club, runs on the river corridor, meeting various professors and great students to hire. It's a tough job, but somebody has to do it!"

Carmen Estarellas Moreno (MTH 81) is a consulting actuary for Watson, Wyatt and Co. in Washington, D.C. She lives in Alexandria, VA.

Carmine Bailey (MTH 82) and Cheryl Peterson Bailey (LAW 81) live in Madison, AL, with their children, Justin (11-19-85), Meghan (11-24-87) and Christopher (3-28-92). Carmine is a senior manager for Boeing in Huntsville and is working on the International Space Station.

Judith Wendeln Miller (MTH 82) and her husband, Michael (ELE 82) live in Carmel, IN, with their children, Stephanie (10-25-88) and Todd ((7-13-92). Judy is a software engineer with Hurco Manufacturing. Their e-mail address is miller4@indy.net.

Rafe Donahue (MTH 87) continues to work as a statistician at Glaxo Wellcome, Inc. in Raleigh N.C. He and his wife, Michelle, continue to raise three "cute" kids, Harry, Zach (Moose) and Olivia. You can check out what is right with the sports world at <http://home.earthlink.net/~rafedonahue/rankings/rafe.html>.

Suzanne Miller Dorney (MTH, CPS 87) lives with her husband, Daniel, and daughter, Kelly Anne, in Midlothian, VA. Suzanne is on the faculty at Virginia Commonwealth University in Richmond, VA.

Youssef Raffoul (MTH 87) and his wife, Nancy, announce the birth of Daniel (10-28-97), who joins siblings Hannah, Paul and Joseph. Youssef chairs the mathematics and computer science department at Tougaloo College in Jackson, MS.

Lisa Niehenke Harrington (MTH 89) and her husband, Thomas Harrington Jr. (MBA 94) announce the birth of Caitlyn Elizabeth (6-5-97). They live in Suwannee, GA. Lisa is a manager for Scientific Atlanta.

Michael Roche (MTH 89) and Lillian Weisent Roche (COM 89) announce the birth of Meghan Louise (8-31-97) who joins Ann Margaret (1-25-93) and Julia Elizabeth (8-17-94) at their home in northern Europe. Michael is a captain in the U.S. Air Force.

Barbara Buck Kowalcyk (MTA 91) lives with her husband, Michael (FIN 90) and daughter, Megan (3-8-96), in Newark, DE. Barbara is a biostatistician for Zeneca Pharmaceuticals in Wilmington, DE. Colleen Galliger Hoover (MTH 91) completed a Ph.D. in logic at Notre Dame. She continues as a tenure track faculty member in the mathematics department at St. Mary's College, IN.

Dan Simon (MTH 91) and his wife, Linda, announce the birth of Kyle Albert (7-14-98), who joins Shannon, DJ and Jacob at home in Old Bridge, NJ. Dan chairs the mathematics department at Ewing High School and works on a doctorate in mathematics education at Rutgers. He hopes that "someone out there" has a videotape of The Music Man production from spring 1991. His e-mail address is ddsr@aol.com.

Christine Schubert Zeller (MTH 92) and her husband, Charles (MED 91), live in Columbus. Christine is a statistician at Wright State.

Joe Coyle (MTH 93) completed a Ph.D. in applied mathematics at the University of Delaware. Joe is currently teaching at Fairleigh Dickinson University, in New Jersey. James Daugherty (MTA 93) teaches high school mathematics in the Fairborn (OH) City School system. He lives in Beavercreek.

Kristine Fromm (MTH 93) married Michael Mills. They live in Evanston, IL; Kristine is currently a graduate student at Northwestern University.

Jennifer Ruffing Grinter (MTH 94) and John Grinter (ELE 93) announce the birth of Katherine Grace (3-5-98), who joins Michael Blake (1-8-94) at home in Florence, KY. Jennifer is a statistical analyst at Gallatin Steel Co. In Ghent, KY.

Jeffrey Pelter (MTH 94) and Alicia Streff Pelter (CRC 95) live in Horsham, PA with their son, Adam Christian (1-30-97). Jeffrey is a consultant for Integrated Systems Consulting Group.

Steve Goodman (MTH 95) married Loren Metivier (MUT 97) with many UD alumni participating in or attending the wedding. They live in Blackwood, NJ; Steve teaches computer technology at St. Joseph's Prep in Philadelphia.

Kiersten Schneider (MTH 95) is a research analyst for the Dayton Daily News. Melissa Humeston (MTH 96) married Troy Gibson (CIS 95). They live in Pittsburgh where Melissa is a technical recruiting manager for Sullivan and Cogliano.

Daniel Parker (MTH 96) married Gretchen Wildehaus (EES 95). They live in Dayton where Daniel works for KeyBank.

Julie Van Schaik (MTH 96) is an operations officer for Fifth Third Bank in Cincinnati. She lives in Batavia, OH.

Michael Hoch (MTH 97) teaches at Fenwick High School in Middletown, OH, where he is also an assistant basketball coach.

Leanne Voos (MTH 97) teaches mathematics at Lausdowne Middle School in Baltimore.

RECENT GRADUATES

The May, 1998, graduating class included five students who were certified to teach mathematics at the secondary level: Matt Beard is at Eastern Middle School in York, PA; Kevin Johns is in the City School system at Piqua, OH; Bob Jones is at Bishop Chatard High School in Indianapolis, IN; Megan LaBeau is in Arlington Heights, IL; and Kimberly Rodak is currently working as a programmer at EDS in Fairborn, OH. The remaining four students have entered graduate programs as follows: Katy Brick planned to study economics, in which she earned a second major; Andrew Hetzel is in the graduate program in mathematics at the University of Tennessee at Knoxville; Timothy Highley is studying computer science, which was his second major, at the University of Virginia; Joe Huelsman is pursuing an MBA in finance here at the University of Dayton. In addition, Nakia Bennett, who is working in Dayton, completed her degree in August, 1998, and Lan Nguyen Huynh graduated in December, 1998.