

5-2003

## Math Department Newsletter, 2003

University of Dayton. Department of Mathematics

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## Mathematics Department Newsletter

May 2003

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### CHAIRPERSON'S MESSAGE

It has been more than a year since the last Newsletter. A few years back, we posted the Newsletter in May. We have drifted that direction again. The academic calendar seems to keep us so busy during the winter months. This Newsletter will contain two full years of information for student activities.

This past year, **Don Jurick** passed away unexpectedly due to a heart attack in October 2002. Don held a joint appointment since 1994; he taught in the Department of Mathematics and he served as the supervisor of MathSci Computer Learning Environment. We remember Don in the final section of this Newsletter.

A number of proposed initiatives are beginning to develop. I can discuss two here, a new program in financial mathematics and our efforts in Mathematics Education initiatives; I hope we will have more in next year's letter.

In March 2002, we were awarded a small grant from the Council of Graduate Schools/Sloan Foundation (CGS/Sloan) to perform a feasibility study with respect to a professional M.S. program in Financial Mathematics. The Sloan Foundation challenges academic units in the sciences to develop professional M.S. programs to complement the MBA programs and the Management Science programs. We have been working with the Departments of Economics & Finance, Computer Science, and Engineering Management & Systems to develop a program in Financial Mathematics. Recently, we were awarded a second grant from CGS/Sloan to implement this program. I have posted an announcement and a proposed curriculum at <http://academic.udayton.edu/PaulEloe/FINMTH.htm> for your perusal. I am happy to take any input you might have. We need to seek approval from the Ohio Board of Regents (OBOR); we are working with a calendar to admit students to this program beginning August 2004.

We are actively developing the Mathematics Education program for pre-service and in-service K-12 teachers. **Becky Krakowski**, with a Ph.D. in mathematics education from North Carolina State University, came on board in August 2000. We have successfully hired a new faculty member, **Shannon Driskell**, to begin working in the department in August 2003. Shannon will earn a Ph.D. in mathematics education from the University of Virginia in August 2003. With Becky and Shannon, we feel we are in a position to pursue exciting initiatives with respect to K-12 mathematics education issues. This comes at a time when Wright State University (**Ann Farrell** (79) is on the faculty at Wright State) is developing a Ph.D. program in Mathematics Education. The two programs don't

compete as we intend to support in-service teachers and Wright State will be preparing specialists for university positions. The two programs should complement each other very nicely. Becky, as Principal Investigator, recently coordinated a partnership with UD, Wright State, the Dayton Public Schools, and the Springfield Public Schools and proposed a *Mathematics and Physical Science Professional Development Project for Secondary Teachers* to the OBOR. A partial list of the goals of the program are to enhance teacher understanding of content in mathematics and science, of research-based methods to improve student achievement, of effective use of technology in teaching, and of integration of mathematics and science. Recently, the OBOR funded this \$200,000 project.

We are in the construction stage of the renovated Science Center. In early May, we moved out of the office spaces on the east side of Sherman Hall so the workers could move in. The calendar says that we will move back into renovated office spaces in August and this phase of the project will be complete before classes begin in late August. So, it is during the summer of 2003 that the long awaited dedicated Schraut Memorial Classroom will come to exist.

We are in the process of planning the 4<sup>th</sup> Schraut Memorial Lecture. This year we will organize a student conference in conjunction with the 4<sup>th</sup> Schraut Memorial Lecture. In addition, we will host a dedication ceremony for the Schraut Memorial Classroom. We have scheduled these events for Saturday, November 1. You will be informed as the plans develop.

Please contact me if you see anything misreported in this newsletter. In an effort to use our financial and material resources wisely, many of you receive the newsletter electronically. Visit the web site, <http://www.udayton.edu/~mathdept/>, (click on archives) to see the on-line version.

Thanks.

Paul Eloe

## THANKS!

Thank you for your generous support. In the past we have relied heavily on your support so we can compete technologically. Some of you have indicated that you are very interested to support student activities. For example, ten undergraduate students attended an Ohio Section MAA meeting in Columbus, Ohio; four of these students delivered presentations based on projects they developed in MTH 440, Mathematical Modeling, and two students delivered presentations based on projects developed in MTH 466, Graph Theory and Combinatorics. Your generous support covered the students' expenses. In April 2003, M.S. candidate, **Mariette Maroun**, delivered a paper in a Special Session of the American Mathematical Society (AMS) in Bloomington, Indiana. Your support covered Mariette's expenses. In April 2003, **Stephanie Edwards** organized an Integration Bee. See <http://academic.udayton.edu/stephanieedwards/IntegrationBee/I-B-Home.htm> Your donations provide for prizes and refreshments as we initiate an annual event that will get mathematics on the radar screen of first and second year students. Finally, we intend to sponsor a student conference in conjunction with the 4<sup>th</sup> Schraut Memorial Lecture. Your generous support will help sponsor the student conference.

Our records, in conjunction with those of the University Advancement Office, indicate the following people have donated a total of \$7,925.00 to the Department of Mathematics during the year 2002:

Timothy P. Bahmer (91)  
Jonathan E. Baniak (81)  
Ronald L. Beisel (63)  
Eugene D. Bolzan (69)  
Marcia J. Boyle (74)  
Gregory Campbell (70)

Mr. & Mrs. George Morrison III (82)  
Mr. & Mrs. Robert A. Niederhoff  
Mr. & Mrs. Edward Pekarek, Jr. (66)  
Jane F. Pendergast (74)  
Mr. & Mrs. William J. Scharf (68)  
Mr. & Mrs. John J. Scheidt (66)

James & Teresa Trimbach Dean (79)  
 David (93) & Cheryl (92) Prenger Edelmann  
 Paul & Laura Schneider (84) Elo  
 Susan Miller Enyart (81)  
 Mr. & Mrs. Michael J. Hartke (66)  
 Mr. & Mrs. William J. Huster (78)  
 Mr. & Mrs. Alexander I. Koler (64)

Mr. & Mrs. Curtis Schultz (01)  
 Mr. & Mrs. Richard G. Segers (50)  
 Mr. & Mrs. Randall J. Smith (77)  
 Robert W. Springer (77)  
 Kevin A. Thomas (76)  
 Christopher A. Wagner (71)  
 Mr. & Mrs. David R. McCubbin (70)

The above total includes employee matching gifts from the following corporations and foundations:

Cinergy Foundation	Hewitt Associates	Principal Financial Group Fnd.
Convergys Corp.	IBM Foundation	The P & G Fund
Eli Lilly & Company	LLC Nielson Media Research	Towers Perrin Co.

## THE KENNETH C. SCHRAUT MEMORIAL LECTURESHIP FUND

Thank you also for your generous support of the Kenneth C. Schraut Memorial Lectureship Fund. This past fall, **Paul Campbell (67)** (see below) delivered the **3<sup>rd</sup> Kenneth C. Schraut Memorial Lecture**. The Memorial Lecture has evolved into an annual event. Every second year, we will associate the lecture with the Biennial Alumni Seminar. In alternate years, we intend to associate the Lecture with a student conference. We are currently in the planning stages for Saturday, November 1, 2003. Please see <http://academic.udayton.edu/PaulEloe/Schrautmemoriallecture.htm> for continual updates with respect to the Lecture. Thanks. The following individuals donated an additional \$4,375.00 to the endowment during 2002:

Philip & Kathy Kolesar-Aftoora (69)	Paul J. Campbell (67)
Richard L (71) & Leslie Kirchmer Iannarino	Mr. & Mrs. William J. Scharf (68)
Ronald & Pamela Steinkirchner (76)	C. Eugene Steuerle (68)
Daniel T. Voss (79)	

The above total includes matching gifts from the following corporations and foundations:

Lockheed Martin Corporation

We also thank **Mr. & Mrs. William J. Scharf (68)** for a special donation to the Stander Symposium. This donation complemented a donation, reported in last year's Newsletter, by the faculty members in the Department of Mathematics in memory of Brother Joe to recognize excellence in undergraduate research at the Stander Symposium.

## A DAY OF MATHEMATICS CELEBRATION

On November 2, 2002, the Department of Mathematics hosted the **20<sup>th</sup> Biennial Alumni Seminar**. The day consisted of three functions, **Conversations Among Women in Mathematics** (morning), the **Biennial Alumni Seminar** (early afternoon), and the **3<sup>rd</sup> Kenneth C. Schraut Memorial Lecture** (late afternoon). We have begun to make special efforts to include more students in these activities. In the past, the Alumni Seminar focused on the UD undergraduate mathematics majors. This year we included undergraduate students from several regional colleges and universities as well as graduate students and high school students. The following alumni participated in all or part of the day's activities.

<b>Marjorie August (91)</b>	<b>Greg Goodhart (85)</b>	<b>Youssef Raffoul (87)</b>
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<b>Kristin Blenk Duncan</b> (99)	<b>Marla Prenger Gross</b> (90)	<b>Nancy Roderer</b> (68)
<b>Thomas Britt</b> (85)	<b>Peter Hovey</b> (75)	<b>Paula Saintignon</b> (82)
<b>Robert Buck</b> (69)	<b>Julie McCarthy</b> (95)	<b>Dan Schauer</b> (95)
<b>Paul Campbell</b> (67)	<b>Scott Mitter</b> (01)	<b>Betty Schneider</b> (65)
<b>Scott Ciolek</b> (98)	<b>Erich Morman</b> (96)	<b>Gerry Shaughnessy</b> (63)
<b>Teri Trimbach Dean</b> (79)	<b>Harry Mushenheim</b> (55)	<b>Fr. Charles Stander</b> (73)
<b>Cheryl Prenger Edelmann</b> (92)	<b>Ed Mykytka</b> (76)	<b>Ralph Steinlage</b> (62)
<b>Tom Filloon</b> (83)	<b>Mary Kaczynski Ollier</b> (87)	<b>Julie Suwalski</b> (92)
<b>Tom Gantner</b> (62)	<b>Susan Pratt</b> (02)	<b>Kathleen Taylor</b> (65)

## Conversations Among Women in Mathematics:

*Conversations among Women in Mathematics* was held during the morning on Saturday, November 2, 2002. **Wiebke Diestelkamp** and **Aparna Higgins** organized the event with the help of a generous grant from The Women's Center Programming Fund at UD.

The program was a rousing success, fulfilling goals of bringing together women in different stages of their mathematical careers, promoting interaction between these women on both mathematical and gender-related issues, and providing examples of UD alumnae who are in positions of leadership in their professions. The program took the form of a panel discussion on women in mathematics, followed by a luncheon.

Forty people participated in *Conversations among Women in Mathematics*. There were 13 alumnae (three of whom are also current mathematics faculty, and one is a high school teacher), seven women faculty from the Department of Mathematics, nine women high school students, four high school mathematics teachers, 11 undergraduate UD students (9 of them women), three women graduate students, and a couple of male alumni and faculty. We are grateful to the Mathematical Association of America, the Association for Women in Mathematics and the American Statistical Association for providing us with free or inexpensive information on careers and professions that use the mathematical sciences. We included these (along with information from various UD offices) in the registration packets for the participants.

The panelists were **Marla Gross** ('90), Senior Statistician, P & G, Cincinnati, **Nancy Roderer** ('68), Associate Professor in the Division of Health Sciences Informatics and Interim Dean of University Libraries, Johns Hopkins University, **Julie Suwalski** ('92), Mathematics Teacher, Northmont High School, Clayton and **Kathleen Taylor** ('65), Professor of Mathematics and Assistant Chair of the Department of Mathematics and Computer Science, Duquesne University.

Each panelist spent 10-15 minutes talking about her experiences as a woman in mathematics and as a graduate of our department. Each woman provided some background as to why she chose mathematics to study, and how she has benefited from that pursuit. The overwhelming reasons for going into mathematics were the encouragement and examples of fathers, uncles or teachers, and the benefits always included the ability to think critically and logically, and to develop problem-solving abilities. The audience asked many questions about the panelists' jobs, about recruitment and retention of women in mathematics careers, about keeping one's options open even as one prepares to become a high school teacher, about which mathematics classes would be most useful to take in college, and about balancing careers with families. In fact, the conversation was so lively that we had to interrupt it and request that we continue it in a new venue -- the Barrett dining room -- where luncheon was arranged for us. We had

arranged the seating so that every table had a mix of high school students, college students, college faculty and alumni. The conversations at the tables never lagged. After lunch, most of the participants attended the Biennial Alumni Seminar and the Annual Schraut Memorial Lecture.

With such a successful first-run, we hope to be able to make this a biennial event. There certainly seems to be a need for women in mathematics to get together and celebrate their connections to each other and to mathematics, and to network with each other.

## 20<sup>th</sup> Biennial Alumni Seminar:

The format was much the same as in previous years. We opened with a single session and then broke to parallel sessions in which students could meet with alumni/ae from particular professions. We broke into 8 parallel sessions this year. The sessions were:

Mathematics & Business  
Coordinators:  
**Tom Britt, Teri Trimbach Dean**

Mathematics & Engineering  
Coordinator:  
**Ed Mykytka**

Mathematics & College Teaching  
Coordinators:  
**Paul Campbell, Kathy Taylor**

Mathematics & Statistics  
Coordinators:  
**Kristin Blenk Duncan, Tom Filloon**

Mathematics & Service  
Coordinators:  
**Susan Pratt, Charles Stander**

Mathematics & High School Teaching  
Coordinators:  
**Becky Krakowski, Scott Mitter**

Mathematics & Medicine  
Coordinator:  
**Dan Schauer**

Mathematics & Others  
Coordinator:  
**Nancy Roderer**

An important message to give to students is that a strong background in mathematics truly opens doors to opportunities. The session, Mathematics & Others, is not imaginatively named. Hopefully we will do better by the 21<sup>st</sup> Alumni Seminar. **Nancy Roderer** serves as an Associate Professor in the Division of Health Sciences Informatics and Interim Dean of University Libraries at Johns Hopkins University. She was a very good sport with the title of her session; she had much to say about the role of Information Technology in the world of Library Science.

In the single session that preceded the parallel sessions, several of the session coordinators gave short presentations to entice students to their sessions. Due to time constraints, Mathematics & Teaching and Mathematics & Statistics did not make presentations. The presenters were: **Nancy Roderer** (see the above paragraph), **Tom Britt**, who is an actuarial scientist with Nationwide in Columbus; **Teri Dean**, who has held several management positions with P & G in Cincinnati; **Ed Mykytka**, who chairs the Engineering Management & Systems program at UD; **Susan Pratt**, who works with the database for a nonprofit organization in Columbus; and **Dan Schauer**, who is an Outcomes Research and Clinical Effectiveness Fellow in the Cincinnati College of Medicine. He serves as his research group's statistician. As we put the day's events together, we intended that students see the diversity that mathematics brings. The common themes of statistics and database management through these presentations were remarkable. The UD faculty has much to learn from these sessions as well.

## Third Kenneth C. Schraut Memorial Lecture:

Following a social break, **Dr. Paul J. Campbell** (67), delivered the 3<sup>rd</sup> Kenneth C. Schraut Memorial Lecture. After receiving an M.S. in algebra and a Ph.D. in mathematical logic from Cornell University, he taught at St. Olaf College in Minnesota before settling at Beloit College in Wisconsin where he is currently Professor and Chair of the Department of Mathematics and Computer Science. He has been the Reviews Editor for *Mathematics Magazine* since 1977, editor of *The Undergraduate Mathematics Applications Project (UMAP) Journal* since 1984, and author for many years of annual articles on mathematics for Encyclopædia Britannica yearbooks. Paul delivered a very enjoyable lecture on How to Keep Up with Mathematics. The slides and references for his talk can be found at  
<ftp://cs.beloit.edu/math-cs/Faculty/Paul%20Campbell/Public/Schraut>

## FACULTY UPDATE

### Full Time Faculty

Atif Abueida, 2000	Peter Hovey, 2001	Shirley Ober, 1977
Wiebke Diestelkamp, 1998	Muhammad Islam, 1985	Darren Parker, 2001
Shannon Driskell, 2003	John Kauflin, 1966	Youssef Raffoul, 1999
Stephanie Edwards, 2001	Becky Krakowski, 2000	Paula Saintignon, 1983
Paul Eloe, 1980	Glen Lobo, 1999	Qin Sheng, 2001
Bob Gorton, 1969	Joe Mashburn, 1981	Gerry Shaughnessy, 1967
Aparna Higgins, 1984	Harry Mushenheim, 1965	Les Steinlage, 1969

### Part Time Faculty

Eric Cheney, 1989	Robert Finnegan, 1985	Scott Mitter, 2001
Cheryl Edelmann, 1999	Karen Mickel, 1992	Betty Schneider, 1989

### Professors Emeriti

Stanley Back, 1998	Jerry Neff, 1999	Carroll Schleppe, 2001
Bill Friel, 1999	Richard Peterson, 1998	Ralph Steinlage, 2001
Tom Gantner, 2001	Ben Rice, 1998	Jerry Strange, 1999
Jack McCloskey, 2001		

## FACULTY ACTIVITIES

### Publications:

**Wiebke S. Diestelkamp** and Jay H. Beder: On the decomposition of orthogonal arrays, *Utilitas Mathematica*, Vol. 61 (2002), 65-86.

**Stephanie Edwards** and S. Hellerstein: Non-real zeros of derivatives of real entire functions and the Polya-Wiman conjectures, *Complex Variables*, 47, (2002), 25-57.

**Paul Eloe, Yang Gao (01)**: The method of quasilinearization and a three-point boundary value problem, *J. Korean Math. Soc.* 39 (2002), No. 2, 319-330.

**Paul Eloe, J. Ehme, J. Henderson**: Upper and lower solution methods for fully nonlinear boundary value problems, *J. Differential Equations*, 180 (2002), 51-64.

**Paul Eloe, F.M. Atici, B. Kaymakcalan**: The quasilinearization method for boundary value problems on time scales, *J. Math. Anal. Appl.* 276 (2002), 357-372.

**Aparna Higgins** and Joseph A. Gallian: Research by Undergraduates is Hot!, *FOCUS*, Newsletter of the MAA, March 2002, 16-17.

**Darren Parker**: On the coradical filtration of pointed coalgebras, *Journal of Algebra*, 255 (2002), 121-134.

**Youssef Raffoul**: Uniform asymptotic stability in linear Volterra systems with nonlinear perturbation, *Int. J. Differential Eqns*, 6 (2002), 19-28.

**Youssef Raffoul**: Positive Solutions of three-point nonlinear second order boundary value problems, *Elec. J. Qualitative Theory of Differential Eqns.*, 15 (2002), 1-11.

**Youssef Raffoul**: Positive periodic solutions of nonlinear functional difference equations, *Elec. J. Differential Eqns.*, 2002 (2002), 1-8.

**Youssef Raffoul**, and **Touhid M. Khandaker (01)**: Stability properties of linear Volterra discrete systems with nonlinear perturbation, *J. Difference Eqns. and Appls.*, 8 (2002), 857-874.

**Qin Sheng**, and A. Khaliq, Modified arc-length adaptive algorithms for degenerate reaction-diffusion equations, *Appl. Math. and Comp.*, 126 (2002), 279-297.

**Qin Sheng**, R. D. Sudduth and P. Yarala, Comparison of induction time and crystallization rate for syndiotactic polystyrene, *Polymer Eng. Sci*, 42 (2002), 694-706.

**Qin Sheng** and H. Cheng, On monotone adaptive algorithms for solving singular reaction-diffusion equations, *Proc. Second International Conf. on Neural, Parallel, and Scientific Computations*, 2 (2002), 233-236.

**Qin Sheng**, R.D. Sudduth, R. Dugyala, J. Garber and K. Nichols, Computer simulation of syndiotactic polystyrene crystallization during injection molding, *J. Injection Molding Technology*, 6 (2002), 120-142.

## Conferences and Other Activities:

**Atif Abueida** organized a Special Session in Graph and Design Theory 2003 Spring Central Section Meeting of the AMS at Indiana University. **Wiebke Diestelkamp**, **Darren Parker**, and R. Sritharan of the Department of Computer Science delivered invited talks. Atif has been sponsored to participate in two separate DIMACS programs this summer, one at Rutgers University and the other at the Illinois Institute of Technology. DIMACS is the Center for Discrete Mathematics and Theoretical Computer Science; it represents a collaboration between Rutgers and Princeton Universities, AT&T Labs, Bell Labs, Telcordia Technologies and NEC Laboratories America.

**Wiebke Diestelkamp** gave a colloquium talk at Wright State University in Fall 2001. She also delivered an invited talk at the Ohio NExT Workshop at Xavier University in April 2002. She presented a talk at the 16<sup>th</sup> Midwest Conference on Combinatorics, Cryptography and Computing at Southern Illinois University in November 2002. Wiebke won an Association for Women in Mathematics Mentoring Travel Grant for the Summer 2003. She will visit her collaborator, Dr. Jay Beder, of the University of Wisconsin Milwaukee.

**Stephanie Edwards** delivered a lecture in the Function Theory Seminar at Purdue University in November 2002. Stephanie won an Association for Women in Mathematics Mentoring Travel Grant for the Summer 2003. She will visit her collaborator, Dr. Enid Steinbart, of Georgia Tech University.

**Aparna Higgins** was an invited speaker at the Awards Day for the Michigan Mathematics Prize Competition in March 2002, at Miami University's Summer Undergraduate Mathematical Sciences Research Institute in June, at the Rose-Hulman Institute of Technology Undergraduate Conference in March 2003, at Student Scholarship Day at Grand Valley State University and at Calvin College in April 2003 on pebbling, demonic graphs and line graphs. She was also invited to present at the 5<sup>th</sup> Annual Legacy of R. L. Moore Conference where she spoke on possible connections between Project NExT, the Moore Method and undergraduate research; she was invited to present one of the Honors Seminars of Metropolitan Dayton in October; she was an invited speaker at the Ohio NExT meeting, where she spoke on recommending, refereeing and reviewing. Aparna and Joe Gallian presented their minicourse on undergraduate research at the Joint Meetings of the AMS-MAA in San Diego in 2002.



(with **Stephen Hartke** (99) joining them as co-presenter) and in Baltimore in 2003. Aparna presented her annual course on undergraduate research to the Project NExT Fellows during the Mathfest in Burlington in August 2002. She spent a week at the Park City Mathematical Institute in July 2002, presenting a five-lecture sequence on undergraduate research.

**Pete Hovey** delivered papers at the 2002 Spring Research Conference on Statistics in Industry in Ann Arbor and the 2002 Joint Statistics Meetings in New York. He is currently organizing an ASA conference at UD in June 2003.

**Muhammad Islam** gave talks at Differential Equations conferences at the University of North Carolina at Wilmington in May 2002 and at the University of Tennessee in October 2002.

**Becky Krakowski** as PI, won a \$200,000 award from the Ohio Board of Regents. She has coordinated a partnership with UD, Wright State, the Dayton Public Schools, and the Springfield Public Schools in the program *Mathematics and Physical Science Professional Development Project for Secondary Teachers*. A partial list of the goals of the program are to enhance teacher understanding of content in mathematics and science, of research-based methods to improve student achievement, of effective use of technology in teaching, and of integration of mathematics and science.

**Darren Parker** has lectured in the Discrete Mathematics Seminar at Wright State and he has delivered talks at a Special Session of the AMS in Madison in October 2002, at the Midwest Graph Theory Conference at Illinois State in September 2002 and at Southeastern International Conference on Combinatorics, Graph Theory and Computing at Florida Atlantic University in March 2002.

**Youssef Raffoul** gave a talk at a Special Session of the American Mathematical Society in Portland in June 2002 and he delivered a colloquium presentation at Wright State University in January 2003. He also organized a Special Session on Difference Equations and Applications at an International Conference on Dynamical Systems and Differential Equations at the University of North Carolina, Wilmington in May 2002.

**Qin Sheng** delivered colloquium presentations at Western Illinois University, the University of Louisiana, Lafayette, and the National University of Singapore. He was an invited speaker at the Second International Conference on Neural, Parallel and Scientific Computations in Atlanta as well. Qin co-organized with **Paul Elo** a Special Session in Nonlinear Analysis and Computation, Bloomington, Indiana, April 2003. **Qin, Muhammad Islam, Mariette Maroun, and Youssef Raffoul** gave talks. **Eric Kauffmann** (91), currently an associate professor at the University of Arkansas at Little Rock, also delivered a lecture in this session.

Departmental members continue their service to the mathematics community. **Bill Friel** continues as Secretary-Treasurer of the Ohio Section of the MAA, and **Tom Gantner** served as the Ohio Section's Past-President and Chair of the Teaching Awards committee. **Aparna Higgins** continues as a co-director of Project NExT, and serves on several committees of the MAA, including the Committee on Site Selection, the Committee on Professional Development and the Alder Awards committee. She was elected to the Nominating Committee of the MAA, and completed her term on the subcommittee on undergraduate research.

**SABBATICAL:** **Gerry Shaughnessy** spent the entire 2001-2002 academic year on sabbatical leave. Gerry spent a large part of time on sabbatical working as a statistician for UDRI. He worked with a team on a project that is developing procedures for Retrogression and Re-Aging (RRA) of corrosion prone aircraft parts. His efforts focused on statistically designing experiments to support the project. He developed a model to predict tensile strength from an in-situ RRA treatment; he presented these results at a meeting of the Canadian Research Council.

Now that Gerry has returned to the classroom, he incorporates this experience to participate in a large experimental project into the statistics classroom. He worked on another project on sabbatical that he incorporates into the classroom. He employed the Visual Basic Macro language within Excel to "unconfound" effects from experimental data generated by an orthogonal array with a small number of

experimental runs. Gerry is head coach for the UD handball team. This has nothing to do with his sabbatical, but it is certainly newsworthy.

## **UNDERGRADUATE ACTIVITIES (during the 2001/2002 and the 2002/2003 years)**

### **Putnam Exam**

**Mark Burky** and **Gayatri Gunda** participated in the William Lowell Putnam Mathematical Competition in both 2001 and 2002. They were joined by **Joel Helton** and **James Goodman** in 2001 and by **Steven Abrams**, **Steven Buck**, **Kari Blaeser**, and **Christopher Ryan** in 2002.

### **Mathematics Modeling Competition**

A team of **Mark Burky**, **Michael Grote**, and **Gaytri Gunda** spent a weekend in February 2002 to participate in the UMAP Mathematical Modeling Competition. In this competition, the team is given two problems on Friday at noon. The team then chooses one problem and must complete the work with the envelope dated midnight, on the following Monday. This year's team produced "The Development of a Mathematical Model to make the Height of the Water Output of a Fountain a Function of Wind Velocity to Prevent the Spraying of Those Walking Nearby."

### **High School Mathematics Competition**

The MAA Student Chapter and the Pi Mu Epsilon chapter organize an annual high school mathematics competition. This is an impressive undertaking. In addition to writing the questions and checking the answers, the UD students seek sponsors to support lunch and T-shirts for the high school participants, and arrange an awards ceremony. **Julia Tosi** coordinated The Sixth Annual University of Dayton High School Math Competition in March 2002, in which 140 high school students on 47 teams from 10 schools participated. **Kolleen Hryb** coordinated the Seventh Annual Competition in 2003, which had 115 high school students on 39 teams representing 7 schools. In 2002, students who wrote problems and prepared for the contest included **Chris Bomba**, **Marcy Carew**, **Chuck DeRee**, **Shelly Franz**, **Gayatri Gunda**, **Mike Grote**, **Kolleen Hryb**, **Stephanie Lindsey**, **Susan Pratt**, and **Chunlei Zhang**. In 2003, these tasks were performed by **Suzanne Dietz**, **Alisa Godfrey**, **Jason Inkrott**, **Stephaney Lindsey**, **Melissa Lovesky**, **David Martin**, **Peri Shereen**, and **Becky Snyder**. Joining these students to help out on the day of the contest were **David Martin** and **Tara Bertke** in 2002, and **Tony Ball**, **Gayatri Gunda**, **Laura Riepenhoff** and **Emma Stull** in 2003. **David Martin** designed the T-shirt each year, and in 2003 he also designed a logo for the Department of Mathematics. **Becky Krakowski** (in 2002) and **Stephanie Edwards** (in 2003) were invited to address the participants. Over the two-year period, the following organizations have provided their generous sponsorship of this competition: the Department of Mathematics, the Honors and Scholars Program, the Office of Admissions, Food Services, the Bookstore, the Student Alumni Council – all from UD, and the Day Air Credit Union, The Greek House, Jimmy John's, Papa John's and United Dairy Farmers.

## **SUMMER PROGRAMS**

**Gayatri Gunda** participated in the George Washington University Summer Program for Women in Mathematics (SPWM) in the summer of 2002. This is a five-week intensive program for mathematically talented undergraduate women who are completing their junior year and may be contemplating graduate study in the mathematical sciences. During the summer of 2003: **Peri Shereen** will participate in the SPWM at GWU; **Pam Smith** obtained an internship at Mission Research Corporation to work on parallel processing problems; **Ben Johnson** will attend an NSF-Research Experiences for Undergraduates program in physics at the University of Toledo; **Kolleen Hryb** will be a resident assistant at the Pre-

College Programs at Wright State University; **Gayatri Gunda** will study in Spain and compare K-12 education in the USA and Spain.

### **MATH CLUB Guest Presentations**

**Dr. Tom Filloon** (82) spoke on career opportunities for statisticians on October 25, 2001. Tom works as a statistician for P & G in Cincinnati.

**Dr. Hans Fischer**, Katholische Universität in Eichstatt, Germany, on leave at Xavier University, spoke on the History of the Normal Distribution on November 12, 2001. Earlier that day, Hans gave a lecture entitled Quality Management in Mathematics Education that was well attended by pre-service teachers.

**Julia Tosi** (02) spoke on her experiences related to a summer internship at P & G prior to her senior year on November 29, 2001. **Tom Filloon** (82) was instrumental in arranging the internship and served as Julia's supervisor.

**Dr. Rich Stankewitz**, Pennsylvania State University at Erie, spoke on Fractal Image Compression on January 3, 2002. (Rich is now at Ball State University, Muncie, IN)

### **Honors Program**

**Chris Bomba** worked with **Joan Hart** on a project entitled "Weak Associative Laws in Quasigroups." In August 2001, Chris attended the MathFest of the MAA in Madison, Wisconsin.

**Marcy Carew** double majored in mathematics and electrical engineering. She worked with Dr. Malcolm Daniels of the Department of Electrical Engineering; she wrote a thesis entitled "Transform Methods and Induction Machine Analysis."

**Susan Pratt** majored in applied mathematical economics. This is a fairly recent program that combines the strengths of mathematics and economics. She worked with Dr. Barbara John of the Department of Economics & Finance; she wrote a thesis entitled "Is Forgiveness the Cure? An Empirical Analysis of External Debt in Sub-Saharan Africa."

**Julia Tosi** double majored in mathematics and economics. She worked jointly with **Paul Eloë** and Dr. Marc Poitras of the Department of Economics & Finance; she wrote a thesis entitled "Results in Social Choice Theory, and a Mathematical Framework in Which They Can Be Viewed."

**Gayatri Gunda** is double majoring in mathematics and chemical engineering. She is working with **Aparna Higgins** on pebbling in directed graphs.

### **The Bro. Joseph W. Stander Symposium for Undergraduates**

Several posters were presented by mathematics majors at the 2002 **Brother Stander**

**Symposium**. **Chris Bomba**, **Marcy Carew**, **Susan Pratt**, and **Julia Tosi** each presented posters related to work in their respective Honors Theses. **Mark Burky**, **Mike Grote** and **Gayatri Gunda** presented a poster related to their work in the Mathematics Modeling Competition. In last year's letter, we mentioned that Awards for Excellence would be given to outstanding posters in honor and memory of Brother Stander. **Susan Pratt** earned the Award for Excellence in Interdisciplinary Studies.

Several posters were presented by mathematics majors at the 2003 **Stander Symposium**. **Steve Buck**, **Gayatri Gunda**, and **David Martin** each presented posters. **Steve**, who double majored in International Studies, presented a poster entitled "Ethics and Sustainable Developments." **Gayatri**, who double majors in Chemical Engineering, presented a poster related to her work in the Honors Program with thesis advisor, **Aparna Higgins**. She is working on problems in pebbling on directed graphs. **David**, who double majors in Computer Science, presented a poster as part of a team developing softbots (software robots) that play soccer.

## **Ohio Section Meeting of the MAA**

The Ohio Section Meeting of the Mathematical Association of America (MAA) held its spring meeting Friday-Saturday 4-5 April 2003 on the campus of The Ohio State University. Six undergraduate students delivered 15-minute talks. The speakers and titles of talks are:

**Patrick Berarducci**, "Modeling viral diseases using differential equations;"

**Diana DeOnofrio**, "Modeling infectious diseases using differential equations;"

**Nicholas Elam**, "Becoming a paper, rock, scissors champion;"

**David Martin**, "Teaching softbot agents to think;"

**Christopher Ryan**, "A comparison of models for falling objects;"

**Peri Shereen**, "Product graphs and sum graphs."

**Kolleen Hryb, Jason Inkrott, Benjamin Johnson, and Pamela Smith** attended the meeting.

## **Academic Honor Roll**

**Andy Bentley** was named to the Pioneer Football League Fall 2002 Academic Honor Roll. This Honor Roll consists of student-athletes who participate in football and post a 3.0 GPA or higher while enrolled full-time in accordance with NCAA rules. Andy was one of the 48 Football Flyers on the Honor Roll.

## **Long Distance Learning Initiative**

**Don Jurick** (82), before his sudden death, was leading the way in the department with respect to long distance learning initiatives. He worked closely with **Gayatri Gunda** to develop online tutoring capabilities. With the use of software packages, smartboard technology, and learning spaces in the UD Lotus Space environment, Gayatri would tutor students who were studying in their dorm rooms. A full length article appeared in the UD Quarterly to highlight their activities. The department's long distance tutoring efforts are currently on hold, but we have plans to continue developing them in the near future.

## **AWARDS**

**Christopher Bomba** won the 2002 Faculty Award for Excellence in Mathematics. This award goes to a graduating student and is determined by the faculty in the Department of Mathematics.

**Gayatri Gunda** won the 2002 Pi Mu Epsilon Award. This award goes to a second year student and is determined by the faculty in the Department of Mathematics.

**Christa Marie Hemmelgarn** won the 2002 Brother Joseph W. Stander, S.M., Award of Excellence in Mathematics Education. This award goes to a graduating student and is determined by the faculty in the School of Education.

**Julia Marie Tosi** won the 2002 Dr. E.B. O'Leary Award of Excellence in Economics. This award goes to a graduating student and is determined by the faculty in the Department of Economics & Finance.

**Mark Burky** won the 2003 Faculty Award for Excellence in Mathematics.

**Pamela Smith** won the 2003 Pi Mu Epsilon Award.

## **GRADUATE ACTIVITIES**

**Youssef Dib** earned an MS degree in applied mathematics in May 2002. Youssef worked with **Youssef Raffoul** for his Math Clinic project. He wrote a paper, joint with Raffoul, entitled "Boundedness and stability in nonlinear discrete systems with nonlinear perturbation." This work will appear in *Difference Equations and Applications*. **Mariette Maroun** earned an MS degree in May 2003. Mariette worked with **Youssef Raffoul** on "Periodic solutions in neutral nonlinear difference equations with delay." She presented her results at a Special Session of the American Mathematical Society in Bloomington Indiana on April 6 2003. **Muhammad Mia** and **Ghazi Al-Eid** are working with **Muhammad Islam** on "Boundedness and Stability in nonlinear Volterra integrodifferential equations" for their Math Clinic projects. They will present a joint

talk at the 4<sup>th</sup> International Conference on Dynamic Systems and Applications in Atlanta in May 2003. Three graduate students, **Mariette Maroun**, **Muhammad Mia**, and **Clarre Johnston** attended the 22<sup>nd</sup> Southeastern-Atlantic Regional Conference on Differential Equations, University of Tennessee at Knoxville, October 2002. **Jeff Gao** (01), who is a Ph.D. candidate in Mathematics at the University of North Carolina, had his Math Clinic project appear in the Journal of the Korean Mathematical Society. See Faculty Publications. **Touhid Khandakar** (01), who is a Ph.D. candidate in Mathematics at Southern Illinois University, had his Math Clinic project appear in the Journal of Difference Equations and Applications. See Faculty Publications.

## RECENT GRADUATE ACTIVITIES

### 2002 GRADS

**Christopher Bomba** is enrolled in the Ph.D. program in mathematics at Ohio State University.

**Michelle Franz** teaches mathematics at Ledgemont High School in Thompson, Ohio.

**Susan Pratt** works for Americorps \*VISTA, a nonprofit organization in Columbus, Ohio. She has been accepted into the PhD program in economics at The Ohio State University and will receive a University Fellowship. She returned to share her experiences at the Alumni Seminar.

**Julia Tosi** is finishing her first year in law school at Ohio State University.

**Kelly Vennekotter** teaches mathematics at Oakwood High School.

### 2003 GRADS

**Steve Buck** will attend graduate school in mathematics at Virginia Tech University.

**Kari Blaeser** will begin working as an actuary at the Ohio Casualty Insurance Company in Cincinnati.

**Mark Burky** will attend graduate school in physics at the University of Maryland.

**Mariette Maroun** will attend graduate school in mathematics at Baylor University.

## ALUMNI NEWS

**Robert C. Bolz** (66) participated as a featured speaker in the Tenth Annual Humanities Symposium that was held at UD during February 16-28, 2003. Bob was scheduled to serve on a panel with Brother RayFitz and discuss "Of Plato and Planes: Engineers among Humanists." Although Bob was successful getting to Dayton, the Panel Discussion was postponed due to heavy snow. Bob is currently Vice-President F/A Sustainment, Program Integration and Fort Worth Site Lead. F/A-22 is the United States Air Force's next-generation Air Superiority Fighter. He has been in the aerospace industry for 25 years. Prior to entering industry, Bob taught high school mathematics and physics. In addition to his B.S. in mathematics and secondary education at UD, Bob has earned an M.S. in Physics from Manhattan College and a Ph.D. in Philosophy focusing on Science and Foundation of Physics from Fordham University.

**Robert Lewand** (66) continues to serve on the faculty at Goucher College in Baltimore. He is the recent author of the book *Cryptological Mathematics* and has co-authored two other books, *Expert Systems Development* and *Intelligent Systems Design*. Recently, he was recognized with the 2002 John M. Smith Award for Distinguished College or University Teaching (Maryland-Virginia-DC Section of the MAA). In July 2003, Bob will deliver an MAA Summer Short Course on Cryptography. This short course is hosted by Capital University in Columbus, Ohio.

**Bill Scharf** (68) retired in August, 2002 as Sr. Vice President of Performance Engineering Corporation. Bill earned an MS in Applied Statistics from Villanova in 1971 and was employed in the information technology industry for 34 years. He lives in Rockville MD with his spouse, Barb. Their daughter, Amy, is married with two children, Justin and Emily. Their son, Matt, has completed an MSE in Chemical Engineering at the University of Pennsylvania; he is currently working on an MBA at the University of Virginia. Matt served in the US Navy for six years as a Lieutenant on the nuclear submarine, the USS Greeneville. Bill recently visited with us on campus; he then headed over to the UD Arena and watched the Flyers beat the University of North Carolina at Wilmington.

**Jane Pendergast** (74) has moved from the faculty at the University of Florida to the Biostatistics faculty at the University of Iowa. She is the Director of the Center for Public Health Statistics in the newly formed College of Public Health. She also serves on the Board of Directors of the ASA and recently concluded a term on the Executive Committee of the eastern North American Region of the International Biometric Society.

**Arthur Kepes** (77) and his wife, Catharine, live in Aiken, S.C., with their children, Ben, Rachel, Victoria and Roman. Arthur is a principal in a real estate development firm and he also has a law practice. He follows the Flyers on the internet.

**Teri Trimbach Dean** (79) and her husband Jim announce the birth of Rebecca Teresa (11-2-00) who joins her five siblings Julie (1-12-88), Jenny (4-27-90), Steve (2-3-93), Amy (3-20-96) and Kristin (3-10-99). The family lives in Hamilton, Ohio. Teri celebrates her 20<sup>th</sup> year with P & G this year. Teri regularly supports the Biennial Alumni Seminar and this past year, she served as a facilitator for the session on Mathematics & Business.

**Carmine Bailey** (82) and **Cheryl Peterson Bailey** (POL) live in Madison AL with their children, Justin, Meghan, and Christopher. Carmine works for Boeing as a payload operations director at NASA's Marshall Space Flight Center in Huntsville and teaches part time at the University of Alabama at Huntsville.

**Vincent Velten** (82) earned a Ph.D. in Electrical Engineering from the University of Dayton in December, 2002. He worked with John Westerkamp and wrote a dissertation on "Synthetic Aperture Radar Geometric Invariants."

**Tom Britt** (85) lives in Columbus and works as an Investment Life Actuary for Nationwide. Tom has been very helpful in the planning stages for an M.S. program in Financial Mathematics. He serves on the program's Advisory Board.

**Kelley Chambers Barratt** (86) lives in Austin with her son, Alexander. She works for AT&T Wireless after having worked as an actuary for seven years.

**John Sengewalt** (86) lives in Berryville, VA, about 10 miles east of Winchester, VA and 70 miles northwest of Washington, D.C. He works for the National Imagery and Mapping Agency (NIMA) as a budget analyst. John recently adopted a ten year old son, **Brent**. John joined us at the reunion luncheon in Baltimore.

**Amy Reed Protos** (87) and her husband, Paul, live in Abington, VA with their three children Sarah, Rebecca, and Allison.

**Jeff Diller** (88) was tenured and promoted to Associate Professor at the University of Notre Dame. He was on sabbatical for the year 2002, spending a semester of it at the University of Michigan (from where he earned his Ph.D.) and six weeks at University Paul Sabatier in Toulouse, France and a couple more at the Institut Mathematiques de Jussieu in Paris. He says, "Jamie and I had a nice time in France last fall. This despite the fact that the language still defeats us."

**Marla (Prenger) Gross** (90) married Gary Gross. Marla's sister, **Cheryl** (92) was matron of Honor. Also in the wedding party was **John Giorgio** (91).

**Tim Bahmer** (91) and **Christine McGinnis Bahmer** (CIS) live in Cuyahoga Falls, Ohio with their two children Mara and Jack. Christine works for Arbortext and Tim is a stay-at-home dad. Tim was diagnosed with chronic fatigue syndrome; he reports doing well lately.

**Tom Bohman** (91) is on the faculty at Carnegie Mellon University. He returned to campus in March 2003 and delivered a colloquium entitled Extremal Combinatorics and Zero-Error Information Theory.

**Barbara Buck Kowalcyk** (91) and **Michael Kowalcyk** (FIN) sadly announce the unexpected death of their two-year-old son Kevin (12/10/98-8/11/01). Kevin died from hemolytic-uremic syndrome, a complication of E. Coli. His illness lasted only ten days. Kevin is survived by his sister, Megan. A scholarship fund has been established in Kevin's memory. Distributions from this fund support scholarships to Agape Christian Preschool and to Mount Horeb Area High School graduates that intend to pursue a career in nursing or a related health care field. Tax-deductible donations can be sent to: Kevin Kowalcyk Memorial Scholarship Fund, c/o Madison Community Foundation, 2 Science Court, P.O. Box 5010, Madison, WI 53705-0010.

**John Giorgio** (91) and his wife, Amy, recently moved from the city, Sioux City, to Hartington NE. For those of us that know John, Ringo is still part of his email address.

**Colleen Galligher Hoover** (91) was tenured and promoted to Associate Professor at Saint Marys College in South Bend Indiana. Colleen was the recipient of the 2002 Maria Pieta Award, in recognition of her outstanding teaching.

**Joe Luckey, Ed.D.** (91) has recently relocated and now works in the Department of Athletics at the University of Memphis.

**Rebecca Busam Sorice** (92) and her husband, Cory live in Towson, MD with their two children, Quinten and Isabella Jasmine.

**Alexis Whapham** (94) and her husband, **Bob Earp III** (MEE) live in Hudson, Ohio. Alexis is the comptroller for Garrett Olds Cadillac Inc. in Kent, Ohio.

**Brandon Hartley** (95) and his wife **Carrie Schmitzer Hartley** (EDE) live in Vandalia, OH, with their children, Andrew, Sarah, and Conor.

**Daniel Schauer, M.D.** (95) is an Outcomes Research and Clinical Effectiveness Fellow in the Department of Internal Medicine at the University of Cincinnati College of Medicine.

**Andrew Hetzel** (98) is completing a Ph.D. in mathematics. He is working as an algebraist with David Dobbs at the University of Tennessee. He recently accepted a tenure track position offer at the University of Louisiana at Monroe.

**Joe Huelsman**, (98) works at WPAFB where he performs statistical analysis and financial forecasting. Joe earned an MBA degree from the UD in 2000. He married his spouse, Kathy, in 2001. Joe was honored with the Dayton Quarterly Award for analysis and support work in December, 2001.

**Kevin Livingston** (00), a MathSci Fellow, is a graduate student in the Intelligent Information Laboratory of the Computer Science department at Northwestern University.

**Annette Lindsay** (01) has been living and working in Japan since graduation. She has been working with the organization, The Navigators, which focuses on Christian ministry and evangelism. She plans to return to Ohio in April 2003.

**Todd Sarver** (01) is in graduate school in economics at Boston University. He has become an unofficial advisor for majors in applied mathematical economics. Several times a major will wonder about the mathematics requirements for someone interested in economics. We put that student directly in contact with Todd through email.

**Robert Phipps** (02) works for CNA Insurance Company in Chicago as an Actuarial Analyst.

## **UD LUNCH IN BALTIMORE**

We enjoyed a reunion luncheon recently at the winter MAA/AMS meetings in Baltimore on Friday January 17, 2003. It's tough to decide between crabcakes and mussels. We enjoyed visiting with **Paul Campbell (67)**, **Stephen Hartke (99)**, **Andrew Hetzel (98)**, **John Sengewalt (86)**, **Kathleen Dietz (71)**, **Bill Scharf (68)**, **Nancy Roderer (67)**, **Rachael Kenney (99)**, **Bob Lewand (66)**, **George Lang (66)**, and **David Jessup (92)**. **Joe Diestel (64)**, **Bob Buck (69)** and **Susan Miller (81)** attended the meetings as well; our information system failed and we did not get the luncheon information to them. A number of the alumni gathered again on Saturday night to cheer the Flyers to a win over George Washington. From what we understand, UD at GW is a home game for the Flyers.

## **TIME SCALES CELEBRATION**

Stefan Hilger of Katholische Universität, Eichstätt, Germany, and inventor of calculus on time scales, was a guest of the Department of Mathematics for 8 weeks during August, September and early October, 2002. To celebrate Hilger's visit, we hosted a Time Scales Workshop, a mini-conference September 20-21, 2002. We had more than two dozen participants including many of the most active current researchers in the field. Participants from UD included faculty members, **Paul Eloe**, **Muhammad**

**Islam, Youssef Raffoul, and Tim Sheng, graduate students, Clarre Johnstone, Marriet Maroun, Muhammad Mia, and Ghazi Al-Eid, and alumnus Yongzhi Zhang (97).**

## **IN MEMORIAM**

**Donald L. Jurick (82)** passed away suddenly due to a heart attack on Saturday, October 12, 2002. Don held a joint appointment; he taught in the Department of Mathematics and he served as supervisor of the MathSci Computer Learning Environment. Don earned an M.S. in mathematics at UD and then he worked for UDRI for twelve years. He began his joint appointment as teacher and laboratory supervisor in 1994. Don was indeed an innovator with respect to long distance learning. Using SmartBoard technologies and the software package, Maple, he delivered MTH 219, Ordinary Differential Equations, online and he was developing an online version of MTH 114, a three credit hour course in topics designed for humanities majors. Don was also leading the way in online tutoring efforts. Teachers impact students. Don's impact was far reaching as evidenced by the attendance at his funeral. So many expressed the desire to travel to pay tribute to Don; those who did include **Geoffrey Dietz, Amber Dietz, Kristin BlenkDuncan, Mary Geiger, David Kornbau, Kevin Livingston, Ryan Reinhart, and Jeffrey Warren.** Don's sister, Sr. Donna, serves as the Provost of St. Marys College in Austin Texas. She delivered a beautiful eulogy at Don's funeral mass. With Sr. Donna's permission, we close this newsletter with her eulogy.

In Memory of

**Donald L. Jurick**

Remarks delivered Wednesday, October 16, 2002

### **Introduction:**

I'm Donna, Don's sister, and as many of you know from him a Sister of Notre Dame. I'm grateful that Father Jerry asked me to say a few words on behalf of the family: brother, Fred, and sister, Peg, and her husband, Norm.

For me and I think for many of you "*THE BIKE*" has become a symbol. It says something of exploring new ground, of fragile, perhaps dangerous independence, frugality and more than a touch of mystery. It took him on paths through many neighborhoods and out into the countryside. I'm grateful to those of you who offered a ride when he, knowingly or unknowingly, needed one.

### **The 1st Neighborhood:**

*Math Sci:* Its students, faculty colleagues, and maintenance staff. I know this neighborhood fairly well through late night phone calls. Many of you know it far better and will have to share your own stories. Here, too, he sought to explore new ground or perhaps more importantly make it possible for students to explore new ground. The family read last night the touching notes written by students. That reaching out went beyond his own math class students and student fellows in the labs to a concern for education in general and at all levels.

### **The 2nd Neighborhood (but not in any hierarchical but rather a meandering order):**

*Family* was important to Don sometimes in more mysterious than obvious ways. We grew up close as siblings -- 4 of us less than 7 years apart from oldest to youngest. Then as adults scattered throughout the U.S. He deeply loved his nieces and nephews:

My sisters' 4 children

My brother's 2 children

His surrogate families after my parents died and we were all gone from the Dayton area were incredibly special to him and for him: bike rides, children's football games, home cooked meals.



### **The 3rd Neighborhood**

*The Religious Community* that nourished him spiritually. Friends and acquaintances in Incarnation Parish: Sunday Mass, ushering, muffins and conversation. The Marianist Spirit on campus: alive and important for him. These were “water” for a hot or tiring or leisurely bike ride.

### **The 4th Neighborhood**

*The Intellectual Community* that recognized and fed his need to grapple with and extend ideas. The Faculty and Staff at the Research Institute who recognized his talent, took a chance on him and nurtured his development. The Mathematics Department Chairs and Faculty who suggested he teach, bolstered his confidence and then allowed him to thrive and even become their teacher as technological innovations invaded the classroom. Colleagues in the Sciences, the Education Programs, and the Center for Pastoral Studies all became collaborators in his work and theirs to further education for all students. This brings me back to students, which in the end was his passion. I found on his desk a statement imbedded in a document (the intent of which I’m not quite sure) but the statement I think ties all the neighborhoods together:

My goals are to continue to create an environment in which students reflect upon what they are doing and naturally generate ideas, to provide the resources and guidance that allows them to develop and implement their ideas, to maintain a space where students learn that ideas can become reality. I strive to use technology to enhance education. I want the students to situate what we are doing in a historical and philosophical context so that it is for the betterment of mankind. [*I would say “humankind.” I think Don would even enjoy his big sister correcting him here.*] Always in using technology in education I am concerned with its pedagogical value.

He somehow understood that students understood students best. And that our job as educators or mentors or parents was to free them and support them in their development of self and one another.

My brother, my sister and brother-in-law and I are deeply grateful for Don’s life and your collaborative part in it. Your outpouring of kindness has been overwhelming. I pray with you that as the mystery of his life has touched each of us while he was among us, his spirit may challenge us to believe in and challenge one another and the generations that will succeed us. May he rest in peace and yet may his spirit be restless enough to goad us on to even more life giving service.

Donna M. Ju