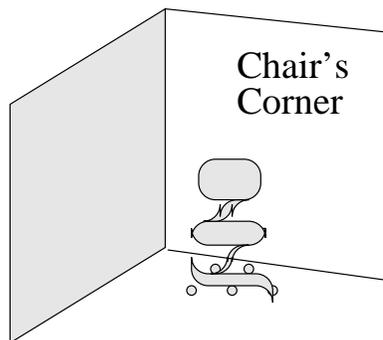


Greetings!

A warm hello to all alumni of the Department of Mathematical Sciences at Northern Illinois University! Once again it is our pleasure to send you news from the past year—including notes you submitted to us concerning your whereabouts and doings. We invite your comments on this issue along with notes on your activities. And we wish you well in all your endeavors.



by Professor William Blair

This past year has been one of major changes for Northern. President John E. La Tourette announced last summer that he planned to retire in February 2000. John G. Peters became NIU's 11th president on June 1, 2000. President Peters received his Ph.D. degree in political science from the University of Illinois at Urbana-Champaign. He comes to NIU from the position of provost and chief operating officer at the University of Tennessee at Knoxville.

The NIU community suffered a very sad loss on July 3 when Associate Provost Ron Simmons passed away unexpectedly. Provost Simmons was a strong and effective advocate for undergraduate education and we will greatly miss him. Professor Robert Wheeler of our department has been named interim associate provost. Bob is well known on campus for his outstanding teaching and his extensive work on curricular issues. Bob holds the rank of Distinguished Teaching Professor and has served as associate dean in the College of Liberal Arts and Sciences for the past two years. The

university is most fortunate to have someone with Bob's talent, integrity, leadership ability, and capacity for hard work to take up where Ron Simmons left off. We wish Bob well in his new position.

Professor Gregory Ammar completed his term as director of graduate studies this year, and he looks forward to a well-earned sabbatical leave next year. Professor Bernard Harris, who has served as director of the Applications Involvement Component of our Ph.D. program for the past four years, became the new director of graduate studies on July 1. Professor Hamid Bellout became the new director of the Applications Involvement Component on July 1.

During November 1999 one member of our faculty received a prestigious and well-deserved honor. The Board of Directors of the Institute of Electrical and Electronics Engineers elected Professor Biswa Nath Datta as an IEEE Fellow with the citation: "For contributions to the interdisciplinary research blending linear algebra with control and systems theory." Fewer than one tenth of one percent of the members of the IEEE have achieved this recognition. We congratulate Professor Datta for receiving this great honor.

Professor Anton Zettl will retire on August 15, 2000, after having served in our department for 32 years. Professor Zettl is an internationally known expert on ordinary differential equations. He holds the rank of Presidential Research Professor, our university's highest recognition for research achievement. Northern is sponsoring a conference on ordinary differential equations in Tony's honor on September 22 and 23. There will be lectures by mathematicians from throughout the U.S., Canada, England, South Africa, and Wales. For more information about the conference visit: <http://www.math.niu.edu/ZettlFest/>.

This was the third year in which the *Huskie Telefund* has solicited donations on behalf of the department from our alumni. We greatly appreciate your generous contributions to our scholarship funds. Each year the number of contributing alumni and the amount of their contributions have grown. Your comments to the student callers about our department, its faculty, and its programs are passed along to us, and we find these to be encouraging and helpful. If you were not able to donate this year, we hope you will consider helping in the future. We also appreciate your loyal support of our endowed scholarship funds and your direct contributions to the department.

This summer the department, under the directorship of Professor Richard Blecksmith, sponsored a Math Camp for mathematically talented high school students. It was especially gratifying and great fun to work with this eager group of young mathematicians, and we hope it will become an annual event. If you would like to nominate a student for next year's camp, please contact Professor Blecksmith.

This is our ninth annual alumni newsletter. They have all been edited by Professor Linda Sons, and I wish to thank her for producing another superb issue. Let us hear from you. If you are in DeKalb please stop by Watson Hall 320 and say hello.

William Blair

“I am going through a phase change”

Those are the words Professor Anton (Tony) Zettl uses to describe his status change out of full-time, regular teaching effective fall 2000.

Reflecting on his years in full-time status, Professor Zettl talked with your editor about how he got into mathematics, highlights of his teaching career, highlights of his research career, and the opportunities he has had in his lifetime.

He noted that he always liked mathematics, but he started his college years as an English major because a high school teacher he had talked him into it! In his sophomore year he became a mathematics major because he got turned on by calculus. He completed all the requirements for high school teaching and taught at Bowen High School on the south side of Chicago. As two professors he knew at the Illinois Institute of Technology, Bill Mahavier and John Neuberger, left to take positions at the University of Tennessee at Knoxville, Professor Zettl was asked to become a graduate student in their new location. Professor Zettl took up their offer and set the goal of getting a master's degree, but by the time he got it, he was ready to go on for the Ph.D. The Moore method of teaching was part of Professor Zettl's training, and he liked the style of being taught that way. Upon completion of his Ph.D. Professor Zettl had three job offers—one at Goodyear Aerospace, one at Oak Ridge National Laboratory, and one as a faculty member at Louisiana State University. By this time Professor Zettl had married his lovely wife, Sandra, and they decided to go to Louisiana.

Professor Zettl remarked that it is always a pleasure to interact with bright, young people and to have a captive audience to talk with about things you love—namely mathematics. At LSU his first teaching course was a small graduate course in differential equations; all of the students who were in that class later got the Ph.D. degree. He has enjoyed using the Texas style method in some advanced calculus classes. He has had three Ph.D. students—Bob Kauffman, Rong Dong Wang, and Howard Dwyer.

Professor Zettl notes that research has provided satisfaction from creating new mathematics and the realization of contributing something to the pyramid of mathematics, which will last forever. He has greatly enjoyed the people he has worked with on research both in the places where he had appointments and elsewhere, as well as those overseas and those corresponded with in other parts of the world. He has found that mathematics is really global.

Growing up on a rural horse farm in Yugoslavia and then having the opportunity to work with the best people in the field of differential equations in the United States, Canada, England, Germany, South Africa, and elsewhere was certainly a dramatic turn of life. When he graduated from Chicago Vocational Technical School at age 20, Professor Zettl could never envision what would one day be!

Professor Zettl feels that he has had a great opportunity to establish and develop his career as a research mathematician at NIU. And he is extremely grateful for the opportunities that the United States of America has given him. He asks: “where else could a refugee 16-year-old with a 7th grade education and penniless parents with only a 6th grade education come and have such opportunity?”

Best wishes, Tony, for the years ahead too.

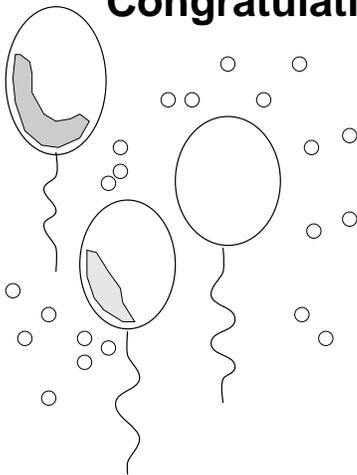
Good News

New Promotions/Tenure

Congratulations are in order for Kitty Holland, who effective August 15, 2000, becomes a tenured associate professor in the department.

Congratulations also go to Professor Donald McAlister, who effective August 15, 2000, becomes a tenured professor in the department.

Congratulations!



Congratulations to the New Doctoral Recipients

The December 1999, May 2000, and August 2000 commencements list four new recipients of the Ph.D. in mathematical sciences.

Congratulations to:

Jason Thrun, whose dissertation “College Students’ rational-number-as-operator strategies: A focus on students’ coordination of units and distributivity of operators in problem-solving situations” was directed by Professor Helen Khoury. Jason is on the faculty of the University of Wisconsin at Platteville.

Matthias Weiss, whose dissertation “Limit Set Action of Discrete Möbius Groups” was directed by Professor Peter Waterman. Matt is taking up a position at Case Western University in fall 2000.

Svetlana Butler, whose dissertation “Investigation of Extreme Points of Quasi-Measures” was directed by Professor Daniel Grubb and co-directed by Professor Robert Wheeler.

Karthik Devarajan, whose dissertation “Inference for a Non-proportional Hazards Regression Model and Applications” was directed by Nader Ebrahimi.

Departmental Awards

The 22nd annual departmental commencement ceremony was held on May 13, 2000, in the Holmes Student Center. At the brunch Department Chair William Blair gave out the following awards:

The D. R. Ostberg Award, given for academic achievement to a continuing student, went to Suzanne Riehl.

The Stelford Prize, given to the graduating senior with the highest GPA in mathematics courses, went to Erin Rossi.

The Gail Masters Gallagher Memorial Scholarship, given to an outstanding student majoring in the mathematical sciences who will have junior class rank during the next academic year, went to Daniel Lindahl.

The Dean's Award, given to a graduating senior for academic excellence and service, was awarded to Jennifer Nelson and John Marotto.

The (departmental) Chair's Award, given on the basis of academic achievement and service to the department, went to Erin Rossi, while the Director's Award went to Daniel McQuade.

Certificates of Merit, given on the basis of academic achievement, went to Roman Ostrovskiy, Joshua Perry, Kelly Perry, Susan Schmid, and Rob Watson (undergraduate students), and Kathleen Almy, Yanfen Chen, Kari Fowler, Christine Leroux, Matthew Love, and Cong Qian (graduate students).

Honorable Mention Awards, given on the basis of academic achievement, went to Nicole Criswell, Sarah Forshier, Kristin Webb, and Peter Wenk (undergraduate students), and Subash Krishnamurthy, Jeremy Schaeffer, and Cindy Smith (graduate students).

The Margariete Montague Wheeler Awards, recognizing the contributions of Professor Wheeler in mathematics education, were given in two groupings. The M. M. Wheeler Scholarship recipient was Margaret Molenda. The M. M. Wheeler Teaching Award recipients were Bradley Frey, Erin Rossi, Cynthia Schneider, and Tracy Solomon.

A Certificate of Teaching Excellence among the graduate assistants went to Kevin Haertzen.

$\pi\mu\epsilon$ Members (by year of induction)

2000 Spring
Jon Brunn
Marcus Spitzmiller
Shannon Finlayson
Susan K. Miller
Randy Hammond

Math Club Activities 1999-2000

This was an exciting year for the NIU Math Club. Many students were involved in the club's activities.

At the beginning of the school year, in August, the Math Club participated for the fifth time in the Friday Fest showing of student organizations. Prof. Alan Zollman donated several math puzzles for the occasion. Publicity and fun were also part of the "Problem of the Month" contests held throughout the academic year (these enjoyed great participation by students). Winners were given five dollars—not a lot, but better than a kick in the teeth.

Our first presentation of the school year was the talk

"What are you going to do with your Math Degree?
Consider a career as an ACTUARY"

delivered by Bill Mendralla and other members of the Allstate Actuarial Recruiting Team (Adam Kreuser, Sue Klein, Gary Wang, and Bill Mendralla). They gave a very professional presentation about the actuarial profession and they fielded questions for nearly an hour. (Some jaws opened when they displayed the slide about top salaries possible.)

In October, Professor W. N. Everitt from the University of Birmingham in England gave the lecture

"The Two Squares Theorem of Fermat"

His talk was a beautiful explanation of Smith's proof using circulants and based on a recent *American Math Monthly* article by Professor Everitt and others.

Another meeting had three students who had just completed their student teaching, Jason Underwood, Amy Brodkorb, and Katie Merritt, serving as panelist, giving a "Student teaching report from the real world" and participating in the discussion that followed. They discussed what they did to prepare for their student teaching experience, such as classroom expectations, gaining a familiarity with the facilities and resources at the school, and designing lesson plans. They also gave insights on the amount of work necessary, contacts with parents, motivation of students, and trying a variety of instructional methods. Students as well as the several faculty members in attendance found this panel's presentation to be enlightening and insightful.

Our main adventure for the year came during the spring semester. Fields Medalist John Conway from Princeton University gave a series of very remarkable lectures at Northwestern University. Each of these talks promised to be understandable, educational, and entertaining. (It is rare when all three of these happen simultaneously.) In terms of dollars and cents, Professor Conway was awarded the Nemmer's prize, worth \$100,000, to give these lectures. This means that a "ticket" to each lecture is worth approximately \$62 per person in attendance. The Math Club organized free transportation to the following four of these lectures:

THINKING ABOUT MATHEMATICS (and MANY OTHER THINGS)

Wednesday, February 9. Godel and Incompleteness

Kurt Godel was a strange and private man, whose closest friend was Albert Einstein. Godel's profound discoveries

about what we can and cannot prove in logic and mathematics will be the topic.

Wednesday, February 16. Logic, Geometry, and Physics

This century's physicists have discovered that the world behaves in some ways that are very difficult to understand. This lecture will try to explain how some pure mathematical ideas can help.

Wednesday, February 23. Escher and Symmetry

This lecture will be about the symmetrical works of the Dutch graphic artist M. C. Escher and the relevant mathematics.

Wednesday, March 1. Finally, Fun

The final lecture will finish with some mathematical tricks and games and present a potpourri of perplexing puzzles, problems, and pastimes.

We left NIU in a university van at approximately 1:30 p.m. on four consecutive Wednesdays, beginning February 16. The talks were attended by hundreds of students, faculty members, and observers from around the region. On several occasions, NIU students spent an hour after the talks in a lively personal discussion with Professor Conway.

Another Math Club meeting was a video night with the movie "Challenge in the Classroom," a film about the teaching method of R. L. Moore, who was one of the most influential teachers of topology of the last century. In the "Moore-style method," the students themselves prove all the theorems in the course. This film explored the man, his method, and his legendary progeny of world-class topologists who studied with him at the University of Texas.

The final Math Club event of the school year was the talk

"What's New in Mathematics Education"

by Professor Alan Zollman. Nearly 21,000 professionals recently attended the annual meeting of the National Council of Teachers of Mathematics (NCTM) held in Chicago last week. Standards of public school instruction were released that emphasize technique along with concepts. These "Principles and Standards for School Mathematics" call for such things as requiring four years of math for everyone in high school and one hour of math instruction per day for all elementary students. Over 250 companies and publishers displayed their newest manipulatives and books. These standards raise serious questions: Are university students prepared to do standard arithmetic such as add fractions? Are calculators really necessary in K-3? Is Mathematica a good idea for Calc I and II?

Tim Huber maintained the club web page this year (its address is <http://www.math.niu.edu/mclub>). Officers during the 1999-2000 year were Jennifer Nelson (president) and Tim Huber (vice president). The faculty advisers are Richard Blecksmith, Qingkai Kong, and Zhuan Ye.

Departmental Mathematics Contest Winners

The 15th annual contest held in the spring had a larger number of students registering for the examination than in recent years. Each participant turned in solutions to a choice of six questions out of 11 problems with the choices set up in such a way that lower-division students had fewer restrictions on their choices than did upper-division students. The outcome showed that a lower-division student CAN win! In fact, there was a tie for first place with Jon Brunn (senior major in mathematical sciences and computer science) and Christie Sanders (freshman major in English), each receiving \$75. Third place with a \$25 prize went to Matt Elmer (junior major in computer science).

ICTM Regional High School Mathematics Contest

Some 300 secondary school students, along with their teachers and coaches, from 10 high schools in northern Illinois were on campus February 26, 2000, for a regional contest in the ICTM contest program. The 10 participating schools were Aurora East, Lake Zurich, Aurora West, Prospect, Schaumburg, Fremd, Rolling Meadows, West Chicago, Hoffman Estates, and Round Lake. A wonderful team of undergraduate students, graduate students, and faculty members from the department supported the event and served as hosts. The contest committee was chaired by Professor Peter Waterman, who was assisted by Professor Yoo Pyo Hong, Professor Y. C. Kwong, Ms. Cindy Stecher, and Professor Zhuan Ye.

We hope to see many of those excellent students in the future as NIU mathematics students!

Mathematical Modeling Contest

Sponsored by COMAP, the 16th annual national modeling contest was held the weekend of February 4-7, 2000. This contest encourages students from different disciplines to compete as a team using applied problem-solving techniques to resolve a real-world problem. Major funding is provided for the contest by the National Security Agency and the National Science Foundation. The Northern team this year consisted of Mark Dickson, Kiran Lakkaraju, and Jennifer Nelson.

1999 Putnam Team

Take a Saturday in December and spend the day writing an examination regarding interesting problems of a varied nature and you have the Putnam competition. The NIU team in 1999 consisted of two experienced members and one student new to the program. Team members were Kiran Lakkaraju, Joshua Nurczyk, and Roman Ostrovskiy.

Web Page

Look for announcements regarding the latest of department activities at <http://www.math.niu.edu/>

Faculty Comings and Goings

Taking time out for a sabbatical leave this past year were four members of the department: Professor Rama Lingham visited Ohio State University and the University of Cincinnati regarding his research work, while Professors George Seelinger, Jeffrey Thunder, and Hongyou Wu spent major time in their home camps doing research.

Also on leave for at least part of the year were Jindrich Necas and Karabi Datta. Professor John Beachy used the spring semester as his semester off from teaching allowed under his appointment as a Presidential Teaching Professor.

New to the department staff for the 1999-2000 academic year were Assistant Professors Ellen Hines and Christine Hurlburt. New instructors for the year were Heather Foes, Phil Kendal, and Michael Timm.

Math Camp 2000—A Huge Success!

Some 16 campers spent the week of July 16, 2000, staying in the Grant Towers and meeting with mathematicians from NIU to learn something new and just enjoy mathematics and each other. Campers got involved in submarine hunting, drawing tessellations like M. C. Escher, the Solitaire Army Problem, cracking codes and searching for extra terrestrials on the Internet, dynamic geometry, how to detangle knots using fractions, and Michael Jordan and perfection. They coded messages of warning to fellow campers of pranks they might play too and just had a great time. Professor Richard Blecksmith was joined by some 18 other mathematics faculty members and mathematics majors to run the camp experience.

WATCH for the 2001 camp tentatively set for July 15-20 and termed A MATH ODYSSEY. The department website should offer more details as they become available, but teachers and parents of youth who have completed grades 8, 9, 10, 11, or 12 are welcome to consider registration. It promises to be a rewarding and stimulating experience for all campers!

Teachers' Resource Center at Fermi Lab

Susan Dahl, one of our NIU alumnae, is the director of the Teachers' Resource Center at Fermi National Laboratory. This center is open for individual use by teachers Monday through Friday each week and two Saturdays a month. It is a demonstration site for the U.S. Department of Education, an Eisenhower National Clearinghouse, and a partner with NCREL and the Math and Science Consortium. The educational software collection is about 1,000 titles emphasizing mathematics and science. Perhaps this resource is not used as much as it could be?

ICTM 2000 Alumni Luncheon

On Friday, October 20, 2000, from 12 til 1 p.m. Northern Illinois University will have its annual luncheon at the ICTM annual meeting. Bring your lunch or grab a sandwich at the nearby food stand, and come and share your experiences and teaching ideas with your alumni friends! The meeting place will be announced in the annual meeting program.

Last year a number of alumni had a great time just munching and talking with new and “old” friends. Those from DeKalb usually have a bit to share too. Hope you can make it this year to the meeting and the gathering.

The News According to YOU!

Each year we invite you to share news and comments. Here are some items we have heard this year!

All of our current group of teacher certification candidates who sought positions are on contract for fall 2000. Here is the list: Jennifer Osborne will be at Waukegan High School; Kelly Perry will be at St. Charles High School; Erin Rossi will be at Glenbard South High School; Cindy Schneider will be at Jacobs High School in Algonquin; Robb Watson will be at Marquette High School in Ottawa, Kristin Webb will be at Sycamore High School; Joe Weber will be at Proviso East High School; Joanna Chang will be at Naperville North High School; Sarah Forshier will be at Eisenhower High School in Oak Lawn; Brad Frey will be at Johnsburg High School; Bharath Sriraman will be at Ottawa High School; Wendy Taylor will be at Belvidere High School; Mindy Romano will be at Ohio High School; Beth Willey will be at Lincolnwood High School in Raymond; and Joe Winiarski will be at Waubonsie Valley High School in Aurora. Congratulations and best wishes for a wonderful teaching career!

Sharon Gabert ('94) and Thomas Steward were married in Elmhurst on June 17, 2000. They are living in Geneva. Sharon begins her third year of teaching at St. Charles High School in fall 2000.

John H. (Jack) Hall ('60) is currently director of Computing Services at Florida Atlantic University, which makes him responsible for Enterprise network services, computer operations, and administrative systems. Florida Atlantic is one of seven campuses in the State of Florida system and has about 22,000 students. John resides in Boca Raton.

John Diamantopoulos ('96) and Karen Rydell were married in Arkadelphia, Arkansas, on July 15, 2000. John will be taking up a new position at Monmouth College in Monmouth, Illinois, in fall 2000.

Mary Dever ('90) took up a new position with Trustmark in the Chicago area effective spring 2000.

Eugene F. DeClark ('46) lives in retirement in Sarasota, Florida. He expresses amazement at the number of graduates in recent years, since his class consisted of three individuals! His distinguished career included the continuing of his education at the University of Michigan where he completed a master's degree during summers while teaching at Glenbard West High School in Glen Ellyn during the academic year. He taught at Glenbard West for 37 years and served 25 of those years as mathematics department chair. Retiring in 1984, he later took a teaching position at Triton Community College for two years before moving to Florida in 1991. He reports being one of the

founders of ICTM!

Melinda Connon ('96) and husband, David, became proud parents this summer of a baby girl, Bethany Grace.

Esther Billings ('98) and husband, David, became proud parents on May 8, 2000, of a baby girl, Naomi Marie, who joins a big sister to make the family complete.

Alumni of 25 Years

Congratulations on the 25th anniversary of the Class of 1975. Here is a listing of the Class of 1975 and their current home towns. If you can update some of the information, we would appreciate your help.

Robert Alan Anderson, Downers Grove, Illinois
James C. Beamsley, Lake City, Florida
Linda Lee Beck, Bettendorf, Iowa
Roger Edward Breisch, Batavia, Illinois
Willard C. Brenner, Jr., Roscoe, Illinois

Larry James Clear Gordonville, Missouri
Robert John Condon, New Haven, Connecticut
Michael C. Cox, Saugerties, New York
Mark D. Dattoli, Elmhurst, Illinois
Mark Curtis Dimberg, Evanston, Illinois

Stephen John Duever, Waterloo, Iowa
James Michael Dygert, Davenport, Iowa
Helen Louise Engle Kingwood, Texas
Ellen L. Entwistle, Magnolia, Illinois
Jerry Lee Frang, Rockford, Illinois

Linda L. Galle, Kennedale, Texas
Judith Karen Gast, Alexandria, Virginia
Michael James Geddes, Geneva, Illinois
John Francis Glazeski, Omaha, Nebraska
Jon Meyer Graham, Fenton, Illinois

David Robert Hahn, Milwaukee, Wisconsin
Randy Lowell Hoyle, Aurora, Illinois
Karen Anne Hyllberg, Gurnee, Illinois
Wendy Sue Inman, Winthrop Harbor, Illinois
Brad Craig Kamber, Woodridge, Illinois

Paul Alan Kay, Minnetonka, Minnesota
John Edward Kerins, Neenah, Wisconsin
James Robert Martin, Vernon Hills, Illinois

Charles H. Miller, Aurora, Illinois
Maureen A. Motroni, Woodstock, Illinois

James Arthur Nicholas, Lisle, Illinois
David Eugene Orkowski, Riverside, Illinois
Lawrence W. Padolski, Evanston, Illinois
George Fotis Paganis, Gurnee, Illinois
Ilaine Sylvia Pannell, Franklin Grove, Illinois

David L. Peterson, Belvidere, Illinois
Gary F. Quick, Littleton, Colorado
Colleen M. Quinn, Lexington, Kentucky
Denise F. Randick, Evergreen Park, Illinois
Richard Frank Rapacki, La Grange, Illinois

Mary Kay Reisberg, Chicago, Illinois
Keith William Riddell, Batavia, Illinois
Donald Charles Schoen, Orland Park, Illinois
David K. Schrader, Hermosa Beach, California
Jikri Steff, Chicago, Illinois

Gordon G. Stewart, Byron, Minnesota
Carl Edward Strauch, Galesburg, Illinois
Anne M. Suk, Nampa, Idaho
Susan Kay Tschopp, Sapulpa, Oklahoma
John Charles Verchota, Willowbrook, Illinois

James Andrew Vicich, Tempe, Arizona
Larry Hale Weinstein, Highland Park, Illinois
Curt H. Whipple, Elgin, Illinois
Maija Leena Wiste, Washington, D.C.
Randolph Lyle Witek, Arlington Heights, Illinois

Nian-chih Yang, Wilmette, Illinois
Brad Richard Wych, Union, Illinois