Chair's Corner

This past year has been one of great pride in the achievements of our faculty as well as one of extreme sadness. It is with a heavy heart that I report the deaths of Professor Emerita Clarence E. Hardgrove and Professor Hongyou Wu.

The College of Liberal Arts and Sciences will celebrate its golden anniversary during the 2009-2010 academic year. You should be receiving information about various events from the college and the Alumni Office. The department intends to have an open house reception on the morning of the homecoming game on Saturday, October 3. Please check our department’s website (www.math.niu.edu) for details and plan to join us.

We congratulate Assistant Professor Gerard Awanou on receiving an Alfred P. Sloan Research Fellowship, the most prestigious award that a young mathematician or scientist can win. This is a major achievement that places Gerard in an elite group of researchers. Gerard is the first NIU faculty member to win a Sloan. Gerard, a native of the West African country of Benin, received his Ph.D. from the University of Georgia and came to NIU in 2005 after two years as a postdoctoral associate at the Institute for Mathematics and Its Applications at the University of Minnesota. His research interests are primarily in the numerical analysis of partial differential equations.

We are pleased to learn that our coordinator of teacher certification, Cindy Stecher, will receive the first Fred Flener Award: Engaging Students in Math Beyond the Classroom from the Illinois Council of Teachers of Mathematics at their October meeting in Peoria, Illinois. Cindy has had an enormous impact upon mathematics education at the national, ICTM, and university levels. Cindy is retiring this summer, but will return in the fall on a part-time basis to help her successor, Pat Reisdorf, with the teacher certification program. Cindy’s influence on mathematics education at the secondary level will continue to be felt for many years through the 300 pre-service teachers she has guided, nurtured, inspired, and mentored during her 15 years at Northern.

Professor Diana Steele retired at the end of the spring semester. Diana joined our department as an assistant professor in 1996 and rose quickly through the ranks, becoming a full professor in 2007. She is well known for her scholarship in mathematics education. Her research interests include mentoring pre-service teachers to enable them to become reflective about their teaching, providing research-based and professional resources to support practicing teachers, and increasing the research-based understanding of the teaching and learning of mathematics. Among her many accomplishments she was a co-director of an NSF funded grant, Expanding Women’s Opportunities in Mathematics and Science. The department wishes Professor Steele a happy and productive future. An article on Diana by Professor Ellen Hines appears in this issue of the newsletter.

Professor Mohsen Pourahmadi of the Division of Statistics has accepted an offer from Texas A&M University. Mohsen is an internationally recognized expert in prediction theory, time-series analysis, and longitudinal data analysis. In 2008 Mohsen received a Presidential Research Professorship, Northern’s highest recognition for outstanding research.
We wish Mohsen well as he takes up his new post.

Professor Linda Sons retired on June 1, after 44 years in the Department of Mathematical Sciences. She grew up on her parents’ Indiana farm, received her A.B. from Indiana University and her M.S. and Ph.D. from Cornell University. Linda has been a truly superb teacher, an outstanding complex analyst, and a departmental and university citizen of boundless energy and vision. I cannot think of anyone who has excelled in all aspects of the profession as has Linda.

In the early 1970s Linda served as director of undergraduate studies, and it was under her leadership that our undergraduate major took its present form. For example, it was due to her vision that our junior level course in mathematical modeling was introduced many years before other institutions followed in our footsteps. Another of Linda's goals was to ensure that students in all majors develop basic quantitative skills. This led to the development of our course in Quantitative Reasoning. She literally wrote the book for this course and subsequently served as chair of the Mathematics Association of America's Committee on Quantitative Literacy, editing its report on *Quantitative Literacy for College Literacy*. In the 1970s and early 1980s Linda had a major role in the development of our Ph.D. program. It was due to her foresight and steadfast advocacy that our program's most innovative feature, the Applications Involvement Component, became a central part of the program. She was the principal writer of our successful Ph.D. proposal.

Internationally Linda is well known and highly regarded for her innovative research in complex analysis. She has delivered numerous colloquia and invited talks at meetings and universities in North America, Europe, and China. Her research has been supported by the National Science Foundation. Linda has directed four Ph.D. dissertations, numerous master's theses, and served as a mentor for several generations of junior faculty.

Over the years Linda has received numerous awards, including NIU's Excellence in Undergraduate Teaching Award and a Presidential Teaching Professorship, the Award for Distinguished College or University Teaching of Mathematics from the Illinois Section of the MAA, and the Excellence in College Mathematics Teaching from the Illinois Council of Teachers of Mathematics. She is the recipient of a Certificate of Meritorious Service from the MAA and the Award for Distinguished Service from the Illinois Section.

Linda has served as president of the Illinois Section of the MAA, and as a member of the Board of Governors of the MAA. At NIU she has served with distinction on every major departmental committee, on numerous college and university committees, on the College Council, Faculty Senate, and the University Council, where she was the executive secretary.

On a personal level Linda has been a close friend for 38 years. I have benefited from her wise counsel and unwavering support. It is impossible for me to imagine our department and university without Linda. Fortunately we won't have to do that; Linda plans to remain active on campus and in the mathematical community. Linda's life has been one of service to her church, the university, and mathematics. As Linda moves to the next phase of her life we wish her a long, happy, and productive retirement.
Professor Emerita Clarence E. Hardgrove passed away on June 2, 2009. Professor Hardgrove was an internationally prominent specialist in mathematics education. She was a professor in the mathematics department from 1950 until her retirement in 1978. A native of West Virginia, Professor Hardgrove taught in various public schools for 14 years before becoming an instructor at The Ohio State University in 1948 where she earned her Ph.D. Professor Hardgrove was an outstanding teacher who was highly regarded by her students, and who was known for her high standards. She served as vice-president of the National Council of Teachers of Mathematics, and in 1972 she received the prestigious Max Beberman Award for lifetime achievement from the Illinois Council of Teachers of Mathematics. She resided in Cincinnati at the time of her death.

Professor Hongyou Wu died on June 9, 2009. Professor Wu earned his Ph.D. at the University of Kansas in 1991, and he joined our department in 1993 after a two year stint at Emory University. He is well known internationally for his high impact research in both differential geometry and differential equations. It is remarkable that a mathematician of Wu’s relatively young age has made major contributions in two such disparate areas. Professor Wu was a conscientious teacher who was able to bring out the best in his students. He was an excellent departmental citizen, and his colleagues showed great faith in his judgment by repeatedly electing him to our department’s most important committees. Hongyou will be greatly missed by his colleagues, students, and the mathematical community at large.

As has been our custom in recent years, the department hosted a Reception and Award Ceremony on a Sunday afternoon in late April in the Skyroom of Holmes Student Center. This was a festive occasion for the award recipients, their family and friends, and members of the faculty. We celebrated the accomplishments of many hardworking students while enjoying refreshments and a beautiful view of campus on a sunny spring day. Attendance was so large that the Skyroom was filled to capacity.

Again this year both the December and May commencement ceremonies were held in the spacious new Convocation Center.

This was the 12th 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. We especially appreciate your support during the current times of very tight budgets.

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.

Let us hear from you. If you are in DeKalb, please stop by Watson Hall 320 and say hello.

William Blair
July 9, 2009
## Officers of the Department of Mathematical Sciences

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<th>Position</th>
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## New Department Officers

Two changes in department administration take place this summer. Professor Zhuan Ye concludes a three-year term as director of undergraduate studies and gives over the post to Professor Qingkai Kong. Cindy Stecher enters retirement, and Patricia Reisdorf takes over as coordinator of teacher certification (having worked this year with Cindy to insure a smooth transition in this important post).

## Professor Diana Steele Retires

It's not surprising that Professor Diana Steele, who recently retired from NIU, focused her research on the learning and teaching of mathematics. After all, Professor Steele launched her research program after having taught mathematics at a variety of levels for a number of years. And while by some measures she began her research career a bit later than many traditional university professionals, she nevertheless produced a large number of highly valuable findings for those interested in learning and teaching mathematics, and she never lost touch with the classroom students and teachers who benefited most from her work.
Three themes emerged prominently in Professor Steele's work: 1) the role of classroom communication in promoting and understanding students' reasoning, 2) the value of developing instructional practices based on students' ways of reasoning, and 3) the importance of integrating assessment into instruction. The discussion that follows may highlight only a few of her articles, but it will provide a glimpse into Professor Steele's dedication to the improvement of learning opportunities for math students at all levels.

With regard to the role of classroom communication in understanding students' reasoning, Professor Steele published "Look Who's Talking: Discourse in a Fourth-Grade Class" in 1998 in *Teaching Children Mathematics* (v4n5p 286–292). The article provides insights for teachers on the importance of classroom interactions and discourse for understanding students' personal construction of geometry concepts. Additionally, she found that a classroom practice based on analysis of interactions and discourse enabled learners to assume greater responsibility for their own learning.

In "The Calculus of Differences: Effects of a Psychosocial, Cultural, and Pedagogical Intervention in an All Women's University Calculus Course," co-authored by Amy Levin, Richard Blacksmith, and Jill Shahverdian and appearing in 2005 in *Mathematics Education Research Journal* (v17, p 28–50), Professor Steele revealed that women enrolled in a calculus course were able to overcome gender barriers as well as class, poverty, and race barriers in part by the creation of an interactive, discussion-based learning environment. Furthermore, women enrolled in the course were more likely to select careers involving mathematics.

Professor Steele worked with Professor Debra Johanning to explore problem solving schemas associated with problems involving growth and change that developed in 7th-grade prealgebra students. Their article, "A Schematic-theoretic View of Problem Solving and the Development of Algebraic Thinking," appeared in *Educational Studies in Mathematics* (v57, n1) in 2004 and illustrates how a teacher can recognize and build on students' ways of reasoning.

With regard to the integration of assessment into instruction, an article titled "Assessment in Action: Mrs. Grant's Measurement Unit" appeared in 2002 in *Mathematics Teaching in the Middle School* (v7 n5 p 266–272). In this article, Professor Steele discusses her observations of a teacher skillfully weaving assessment into an instructional unit on linear measurement through the use of four open-ended tasks. The article helps teachers realize that assessment must be more than brief paper-and-pencil responses given at the end of a unit of instruction and suggests a model for using assessment to frame instructional practices. To Professor Steele's credit, The National Council of Teachers of Mathematics currently posts on its website a description of how teachers might use information from the article to organize professional development experiences.

As this sampling of articles points out, the work of Professor Steele has been aimed consistently at developing links between mathematics education research and the practice of teaching mathematics. Her work is practical and provides guidance for classroom teachers, but is intended always to deeply inform, enlighten, and inspire practitioners. Furthermore, researchers can learn from her astute observational skills and meticulous research methodologies as well.
Professor Diana Steele has tirelessly championed the importance of reform-based mathematics instruction at all levels. We wholeheartedly thank her for generously contributing her time and talents for the advancement of mathematics education at Northern.

**FACULTY COMINGS AND GOINGS**

New to the faculty for the academic year 2008-2009 were Patricia Reisdorf and Assistant Professors Maya Mincheva and Alon Regev. Patricia Reisdorf holds an M.S. degree from the University of Wisconsin at Madison but comes to NIU with a wealth of experience teaching in a range of places and having served as a K-12 mathematics coordinator and consultant. Immediately prior to coming to NIU she was a K-12 math/technology coordinator in St. Charles, Illinois, schools.

Professor Maya Mincheva earned her Ph.D. in 2003 at the University of Waterloo in Canada. Immediately prior to coming to NIU, she spent two years as a research associate at the University of Wisconsin in Madison. Her interests center on biomathematics.

Professor Alon Regev received his Ph.D. in 2008 from the University of California at San Diego. His interests are in algebra.

New instructors for the year were Kenneth Beynon and Lance Vobornik. Both have a master's from NIU.

On sabbatical leave for part of the 2008-2009 academic year were Professors John Beachy and Mary Shafer.

**Putnam Problems For You???

The 69th annual William Lowell Putnam Mathematical Competition was held on Saturday, December 6, 2008. Professors Richard Blecksmith and Ilya Kristal advised and organized a student contingent (Rob Beavers, Bryan Crouch, and Brock Hutchinson) to represent NIU. Here are some problems they faced:

1. What is the maximum number of rational points that can lie on a circle in two-space whose center is not a rational point? (A rational point is a point both of whose coordinates are rational numbers.)

2. What is the largest possible radius of a circle contained in a 4-dimensional hypercube of side length 1?

3. Alan and Barbara play a game in which they take turns filling entries of an initially empty 2008 X 2008 array. Alan plays first. At each turn, a player chooses a real number and places it in a vacant entry. The game ends when all the entries are filled. Alan wins if the determinant of the resulting matrix is nonzero; Barbara wins if it is zero. Which player has a winning strategy?

**Faculty Promotions**

Congratulations go to Professor Gleb Sirotkin, who becomes a tenured associate professor with the start of the 2009-2010 academic year. Cheers also go to Associate Professor Sien Deng, who becomes Professor Sien Deng in August. We are happy to celebrate your movement to these new academic ranks!!
The 31st annual Awards Ceremony was held on April 19, 2009, in the Holmes Student Center Skyroom. At the reception, Department Chair William Blair gave out the following awards:

**Dean’s Award**  
Phoebe Blaustein  
Phillip Dlugosz

**Chair’s Award**  
Kristopher Huffman

**Director’s Award**  
Liang Tang

**Stelford Award**  
Gregory Meena

**M. M. Wheeler Scholarship Award**  
Julie Goodin  
Paul Hoffman  
Natalie Olson  
Stephen Reilly

**M. M. Wheeler Teaching Award**  
Honorable Mention  
Amanda Banks  
Emily Brake  
Shannon Halenza  
Meghan Richardson

**M. M. Wheeler Teaching Award**
Andrew Cordell  
Samantha Kostelancik  
Jennifer Mellske  
Eddie Resendiz  
Kathleen Snyders  
Steven Szabo  
James Trayser  
Emily Waddell

**D. R. Ostberg Award**
Jeremy Chamberlain

**Clarence Ethel Hardgrove Scholarship**  
Dustin Berthold  
Tracy Grupp  
MaryJo Kratochvil  
Jacqueline McGinn  
Yasotha Veerayah

**Merlyn J. Behr Award**
Kathleen Gavin

**Carol J. Feltz Scholarship**  
Arpita Chatterjee  
Suchitrita Sarkar
Dale C. Jungst Memorial Scholarship Award
Paul Hoffman

Joseph C. & Marion E. Huber Memorial Scholarship
Ethan Berillo
Nathaniel Luker
Christopher Thunder

Adam Slagell Scholarship
Bryan Crouch

Gail Masters Gallagher Memorial Scholarship
James Tonyan
John Yednock

Horvath Family Fund Scholarship
Kimberly Dye
Lu Li
Michael Strumberger

Certificate of Teaching Excellence
Laura Kettner

Certificate of Merit—Undergraduates
Emily Brake
Bryan Crouch
Robert Fantozzi
Andrew Hill
Timothy Hoffman
Kristopher Huffman
Gregory Meena

Certificate of Merit—Graduates
Jeremy Chamberlain
John Hoelzer
Karen Ann Lopez
Mark Lund
Julia Saller
Vadim Sokolov
Xiaofei Wang

Honorable Mention—Undergraduates
Phoebe Blaustein
Dominica Blalock
Phillip Dlugosz
Kyle Eurek
John Hlotke
Lisa Kasperkiewicz
Meghan Richardson
Alexis Rivera

Honorable Mention—Graduates
Devrim Bilgili
Kenneth Beynon
Stuart Carney
Todd Corley
Michael Grygleski
Jonathan Meshes
Mihai Racovitan

NSU Math Contest
Chi Zhang 1st place

Elizabeth Gibble 2nd place
Bradley Fischer 3rd place
Once again puzzle night and movie nights, along with several lectures, were in the activity of the Math Club in 2008-2009. The sale of donated mathematics books and answers to old departmental final exams provided some funding for the group. SPECIAL this year was the participation of NIU students in the ISMAA Student Mathematics Competition.

The Competition had 47 students participate in the form of 17 teams, with 1 to 3 participants on a team. NIU had two teams, and one of them took FIRST Place! Congratulations to Brock Hutchinson and Chi Zhang for their efforts on this winning team.

Professors David Rusin, Douglas Bowman, and Richard Blecksmith served as faculty advisers for the year.

**REGIONAL CONTEST HOSTED**

After a year hiatus in its offering at Northern, the Department of Mathematical Sciences again hosted an ICTM Regional High School Mathematics Contest on February 21, 2009. Special thanks go to Professor Peter Waterman, Cindy Stecher, Eric Behr, and Nancy Leifheit for making the arrangements for the contest to be held. Thanks also go to some 41 faculty and students who served in the various roles needed for a successful day—grading, registering, hosting, etc.

The annual Northern Illinois University Mathematics Contest has a format where freshmen and sophomores have a fair chance to compete with juniors and seniors. The underclassmen have fewer restrictions on their choice of problems to attempt. Still it is very rare that a freshman wins. But that is exactly what happened in this year’s contest, held on March 18. Chi Zhang, a freshman computer science major from Qingdao, China, took first place and a prize of $75. Elizabeth Gibble, a junior mathematical sciences (actuarial science) major from St. Charles, won second place and $50; and Bradley Fischer, a junior mathematical sciences (probability/statistics) major from Winnebago, finished third and received $25. Ms. Gibble was the third prize winner in last year’s contest.

### Teaching Positions for 2008-2009 Mathematics Student Teachers

**Fall 2008 student teachers:**

- Steve Szabo - Harold Jacobs High School (Algonquin)
- Kari Cheek - Dundee-Crown H. S. (Carpentersville)
- Samantha Schneider - Plainfield North H. S.
- Samantha Kostelancik - Belvidere H. S.
- Eddie Resendiz - Glenbard West H. S. (Glen Ellyn)
- Emily Waddell - Brookwood Junior H. S. (Glenwood)

**Spring 2009 student teachers:**

- Phoebe Blaustein - Sycamore H. S.
- Rob Fantozzi - Hillcrest H. S. (Country Club Hills)
- Alexis Rivera - Sterling H. S.
- Stephanie Wiora - Providence-St. Mel H. S. (Chicago)

### 24th Annual NIU MATH CONTEST

The contest has a format where freshmen and sophomores have a fair chance to compete with juniors and seniors. The underclassmen have fewer restrictions on their choice of problems to attempt. Still it is very rare that a freshman wins. But that is exactly what happened in this year’s contest, held on March 18. Chi Zhang, a freshman computer science major from Qingdao, China, took first place and a prize of $75. Elizabeth Gibble, a junior mathematical sciences (actuarial science) major from St. Charles, won second place and $50; and Bradley Fischer, a junior mathematical sciences (probability/statistics) major from Winnebago, finished third and received $25. Ms. Gibble was the third prize winner in last year’s contest.
The winners were recognized at the Department of Mathematical Sciences’ Awards Ceremony and Reception, held on April 19.

As in previous years, the contest exam was open to all full-time undergraduates at NIU. There were a total of 15 participants this year. Each contestant turned in solutions to a choice of six out of 11 problems. Topics ranged from high school level algebra, geometry, and trig, through calculus, linear algebra, and differential equations. Professors Harvey Blau and Gleb Sirotkin supervised the competition.

For more information, contact Harvey Blau (815-753-6772; blau@math.niu.edu)

Mikhail Gromov has received the Abel Prize
Foto: Erlend Aas/Scanpix

The Russian-French mathematician Mikhail Leonidovich Gromov, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France, received the 2009 Abel Prize from His Majesty King Harald at an award ceremony in Oslo, 19 May. Her Majesty Queen Sonja also attended the award ceremony. The Minister of Research and Higher Education, Tora Aasland, was among the many other prominent persons present. The Abel Prize, which carries a cash award of NOK 6,000,000 (close to EUR 700,000 or US $ 950,000), is awarded by the Norwegian Academy of Science and Letters.

The 2009 Abel Prize was awarded to Mikhail Gromov for his revolutionary contributions to geometry. Kristian Seip, chairman of the Abel Committee, elaborated on this in his speech at the award ceremony:

“Mikhail Gromov is a remarkably creative mathematician. He is always in pursuit of new questions and is constantly thinking of new ideas for solutions of long-standing problems. The work of Gromov will for a long time to come continue to be a source of inspiration for many important mathematical discoveries.”

(Write-up courtesy of www.ams.org)
Alumni of 25 Years

Congratulations on the 25th anniversary of the class of 1984. Here is a listing of the class of 1984 and their current hometowns. If you can update some of the information, we would appreciate your help.

Ms. Yusof Selama Abdullah, Lafayette, IN
Ms. Asbariah Abubakar, Malaysia
Mr. Gregory Dean Anderson, Lisle, IL
Mr. John C. Armstrong, Wauconda, IL
Mr. Louis Joel Bahrmasel, O’Fallon, MO
Ms. Karolyn Lee Blatt, Albuquerque, NM
Mr. Mohamad Johnny Boyce, Baltimore, MD
Mrs. Luann Kay Burkamper, Lisle, IL
Mr. Dane Richard Camp, Glen Ellyn, IL
Mr. Peter J. Cannistra, Elk Grove Village, IL
Mrs. Rebecca Chan, Alameda, CA
Mrs. Natalie E. Coser, Palm Harbor, FL
Mr. David George Dilcher, Willowbrook, IL
Mrs. Suzanne M. Disteldorf, Oak Forest, IL
Mrs. Terresa Ann Dolehide, Midlothian, IL
Mr. Michael Reed Dye, Gurnee, IL
Ms. Shen-chwen Fan, New Hartford, NY
Mrs. Kelly Fogarty, Elmhurst, IL
Ms. Julie Ruth Gibson, Warrenville, IL
Mr. Thomas F. Grannan, Naperville, IL
Mrs. Ruth Anne Hartman, Taylor Ridge, IL
Mr. Kurt D. Hendrickson, Madison, WI
Mr. Brian Mark Hill, Crossville, TN
Mr. P. Tinsley Hill, Brookfield, IL
Ms. Kimberly Sue Janz, Elgin, IL
Dr. Janet L. Johnson, Raleigh, NC
Ms. Charlene Marie Kelly, Plainfield, IL
Mr. Charles Joseph Kern, Lilburn, IL
Ms. Dawn M. Kluchenek, Willowbrook, IL
Mrs. Diane R. Vaupel Koening, Stillman Valley, IL
Mr. Mark W. Larsen, Chicago, IL
Mr. Paul Alfred Lehman, Cary, IL
Ms. Cynthia J. Leider, Bloomingdale, IL
Mr. James John Madden, Greensboro, NC

Mr. Alias Matderus, DeKalb, IL
Mr. Steven McKnight, Garden Prairie, IL
Mrs. Paula Peek Medlin, Cumming, GA
Mrs. Korynn K. Merril, Lindale, IL
Ms. Janet Loretta Miller, Palos Hills, IL
Mr. Albert Natian, Glendale, CA
Mrs. Diana J. Pellegrin, Folsom, CA
Mr. Gary Raymond Pietrzak, Manhattan, CA
Mr. John Mark Ratkovich, Glen Ellyn, IL
Mr. Donald Michael Riesser, Villa Park, IL
Mr. Arnold W. Rippener, Forest Park, IL
Mr. Timothy G. Schultz, Algonquin, IL
Ms. Enakshi Singh, Naperville, IL
Mr. Edward James Skerke, Neenah, WI
Mrs. Anna L. Slubowski, Palos Hills, IL
Mr. James J. Smaga, Warrenville, IL
Mr. John Walter Smaga, Elmhurst, IL
Mr. Alfred C. Snikeris, Downingtown, PA
Mr. James Ting, Carrollton, TX
Ms. Barbara Jean White, Elizabeth, IL
Ms. Margaret Ann Wieser, Naperville, IL
Mr. Stanley Alan Williams, St. Louis, MO
Mr. Richard Paul Yocius, Wadsorth, IL
Mr. Peder M. Yurista, Duluth, MN
Mr. Scott Allen Zimmer, Trout Valley, IL

FIRST COHORT FINISHES ONE YEAR

The first cohort of school teachers in the new Master of Science in Teaching (M.S.T.) degree program in "middle school mathematics education" have completed their first year. Under the direction of Professors Helen Khoury and Mary Shafer, a group of Rockford Public School teachers were led through the course work in mathematics and mathematics education. In June the group came to the Barsema Alumni and Visitors Center on campus to hear Professor Emeriti Judy Sowder of San Diego State University speak on "What Students Need to Know to Succeed in Algebra." NIU graduates Brad Thornquist and Janet Eden attended.
Congratulations to our 
Newest Ph.D.s

The Department of Mathematical Sciences saw six students receive their Ph.D. degree in the December 2008 and May 2009 commencements. In December there were four awards granted. These were:

Vadim Sokolov, who worked in the area of numerical control theory under the direction of Professor Biswa Datta. Vadim's dissertation was entitled "Quadratic inverse eigenvalue problems: theory, methods and applications." He is currently a computational engineer at Argonne National Laboratory in Argonne, IL.

Michael Racovitan, who completed his work under Professor Harvey Blau in group theory. Michael started his dissertation under Professor Harald Ellers, who is no longer at NIU. Michael's dissertation was called "Generalizations for the blocks of the symmetric group and Nakayama conjecture." He took a position at Grand Valley State University in Allendale, MI, for the last academic year.

Jonathan Meshes did research in classical complex analysis under the direction of Professor Linda Sons. His dissertation title was "Functions in class F in the unit disc which have integrals not in F." He is currently seeking a full-time position after completing some part-time ones during the last academic year.

Todd Corley finished his dissertation in group theory under the direction of Professor Harvey Blau. His research work was entitled "Classification methods for primitive table algebras of dimension 4". Todd took a position at the University of Wisconsin Manitowoc in Manitowoc, WI, last fall.

May recipients were Devrim Bilgili and Mark Lund.

Devrim Bilgili worked under Professor Nader Ebrahimi in statistics. Devrim's dissertation, entitled "Quantitative trait loci detection using an accelerated failure time cure model," led to his getting a position in the Laboratory of Neurogenetics at the Mayo Clinic in Jacksonville, FL.

Mark Lund's dissertation research was directed by Professor Zhuan Ye. Mark's work in classical complex analysis was called "Nevanlinna theory in annuli." Mark is currently seeking a position for the fall while doing some part-time instruction at a community college.

STUDENTS WHO COMPLETED THEIR FIELD EXPERIENCE FOR THE AIC DURING THE LAST YEAR INCLUDE:

Susan Ficken worked in the Decision and Information Sciences Division of Argonne National Laboratory. During her time there she developed a text mining system using Mathematica. Unlike search engines, text mining systems allow deriving high quality information from text.

Laura Kettner spent time in the Math. and Computer Science Division of Argonne National Laboratory. She worked in the field of bioinformatics, which is computational molecular biology. When machines are
used to read a strand of DNA, sometimes reading errors occur. Laura was involved in writing a program to make corrections to reading errors. Her work there will be published in a paper titled “Location and Correction of Frameshift Errors by Comparison to Homologous Genes”. This paper was submitted to the journal *In Silico Biology*.

Min Wang worked at the Toshiba Medical Research Institute located in the Chicago suburbs. His project was in medical imaging. Specifically his project was titled *Myocardial Perfusion from X-ray Angiograms*. The purpose is to better assess patients’ coronary blood flow using MRI images.

Paul Gunsul was involved with a project related to meteorology. Many current atmospheric models used for weather forecasting assume a soil or vegetative surface. In other words, the effect of buildings, roads, and other urban artifacts are not accounted for in forecast models. Paul worked on a computer model which will make it possible to incorporate some of these urban effects into the atmospheric models.

**SUMMER 2009 FIELD EXPERIENCES ARE AS FOLLOWS:**

Michael Decaro and Matthew Cardwell are both working at Intelligent Medical Objects (IMO), which works in the medical informatics field. An overall company goal is to equip medical providers with a uniform vocabulary and tools to assist patient diagnoses. The consequent hope is that correct implementation of such tools will lead to early detection of disease patterns, thereby providing timelier and less invasive care to patients. Lately, IMO has made significant progress toward this goal. Michael and Matthew will contribute to this effort by providing a mathematically rigorous foundation for the techniques used by IMO.

David Kettlestrings is working at the pediatric neurology department of the university of Chicago Medical Center. David is working with a team of neurologists on sleep problems. Specifically David is developing computer programs that will read EEG recordings of patients and produce reports on the patients’ sleeping patterns. Such a tool would help to better diagnose sleep issues, in particular detecting sleep apnea, in patients.

Suchitrita Sarkar is working at the Alexian Brothers Center for Brain Research in Elk Grove Village. There she is collaborating with a team of neurologists and scientists investigating the relation between auditory and language abnormalities and their possible connection to autism in children. She is to help provide data analysis and interpretation of the study.

**CINDY STECHE, ICTM, and the ICTM State Math Contest**

Have you wondered where "they" get all those questions for the State Math contests given each spring for high school students? Teams of dedicated teachers from the high schools and universities form Question Writing Committees for the two divisions represented in the contest. Cindy Stecher has done question writing for many years, served as a compiler of questions for at least five years, and chief proofreader for at least 10 years! She has served as both chair and secretary of the ICTM State Contest, and also Chairperson of the Question Writing Committees. AND she plans to continue in her retirement (for which everyone is glad!). Everyone who has worked with her KNOWS she always has lots of questions!

Cindy has also served ICTM in other ways—most notably for a term as co-editor with Leona Mirza of the *Illinois Math Teacher*.

Cindy’s middle initial is H, but we wonder if it should be S for service. Happy retirement, Cindy, and thanks for ALL you have done for ICTM and the mathematics community.
Professor Hongyou Wu was a member of the Department of Mathematical Sciences at NIU for 16 years. His untimely death in June left many in shock and disbelief, for illness had only suddenly come upon him in January.

Professor Wu was a complete professional who exemplified what outstanding talent and diligent hard work can achieve. He knew an international reputation for his research in the disparate fields of differential geometry and partial and ordinary differential equations. His dissertation with Professor Josef Dorfmeister led to papers in differential geometry and harmonic maps and minimal surfaces. Joint work with Professor Dorfmeister and Franz Pedit led to "the D-P-W method" and "Wu's formula." Professor Wu's work makes the connection between differential geometry and the soliton partial differential equations of mathematical physics transparent and very interesting. His work in collaboration with Eric Behr and Professor Jindrich Necas showed strong numerical evidence that a special solution of Euler equations went to infinity in finite time, showing that refined models for the motion of incompressible and nonviscous fluids may be needed.

Professor Wu loved to discuss mathematics with colleagues at NIU and at other universities and was a frequent conference attendee and organizer. He brought a new and very original geometric insight to a research area that Professors Qingkai Kong and Anton Zettl were working in, and the three of them published many new theorems (17 papers in 15 years) which are now used world wide and have become known as the KWZ theorems. These theorems help illuminate and clarify the structure and properties of Sturm-Liouville boundary value problems, an old area of ordinary differential equations.

In the math department at NIU, Professor Wu was a conscientious teacher and a solid departmental citizen. He had one Ph.D. student with whom he later published a paper.

Professor Wu will be greatly missed not only at NIU, but also in the international mathematics community (especially in China). He leaves behind a wife, Yanqin, and two daughters, Lucia and Joly.

(Thanks go to Professors Blair and Zettl for their help in writing this article.)

WE MISSED
CHRIS PIERCE

Our listing of the Alumni of 25 years two years ago accidentally left out Christopher Pierce! Because of an oversight in compiling the list of graduates Chris' name did not appear, but we are happy to acknowledge that he DID indeed earn a B.S. in both computational mathematics and in applied data processing science in 1982 at NIU. He now resides in Vernon Hills, Illinois. Sorry, Chris, for the two-year delay in noting your accomplishment, but glad you read the newsletter and can now celebrate 27 years! Best wishes for the years ahead!
Professor Ethel Hardgrove 1911-2009

Professor Hardgrove was among those stimulated to try to improve mathematics instruction in the United States and in developing countries after the time of the Sputnik launch. She was a member of the elite School Mathematics Study Group (SMSG) in 1960 and 1961 and served on its Advisory Board 1964-1967 (chairing it in 1966-1967). The SMSG drew up a new curriculum for elementary schools which later was dubbed the "new math." Around this same time the U.S. State Department, along with the U.S. Agency for International Development, brought together a group of mathematics educators from the United States, Britain, and many of the African nations to discuss the development of school mathematics in the African countries. A group assembled at Entebbe in Africa for a number of summers to write materials appropriate for the African schools. Professor Hardgrove was the editor of the Entebbe Mathematics Series, Primary One-Primary Six, produced by the Educational Development Center in Newton, Mass., 1962-1969. At the same time she was a participant and chairman of the Primary Group for Entebbe and Mombasa Mathematics Workshops, aimed at enabling the teachers in the African nations to use the materials produced. While the African Mathematics Project drew to a close in 1976, its work was important in recognizing the need for cultural ways to influence educational efforts, and, of course, in providing mathematics instruction to many.

Georgia Ann (McLeish) Landwehr (’74) reports that she holds the position of office manager/administrative part-time at Walsh Consulting Group in Northbrook, IL. She got an M.Ed. in 1992 at the University of Illinois in curriculum and instruction and an M.S. in 2000 from National-Louis University in human resources. She is proud of her 3 children: Joanne Gay, who graduated from UIUC in 2003 and is at A.C. Nielsen in Schaumburg; John Gay, who graduated from UIUC in 2007 in Mechanical engineering and works at Bornquist, Inc. in Chicago; and Robin Gay, who graduated in 2005 from EIU in elementary education and works at Allstate Insurance.

Jan Felver (’69) recently retired from years of service on the board of the NIU Foundation. Thank you, Jan!

Andrew Woods (’98) and Jill Shahverdian (’03) are happy to announce the births on July 2, 2009, of twins Marcus and Oscar. Both Andrew and Jill have just secured promotions this year too–Jill to associate professor at Quinnipiac University in Hamden, CT, and Andrew to vice president of research and development for personal insurance at Travelers, where he oversees some 40 workers.
Amy Del Medico ('00), currently an assistant professor at Waubonsee Community College, is co-chair with Tom Pulver (also of Waubonsee) of the International Conference on Technology in College Mathematics to be held in Chicago at the Sheraton Hotel on March 11-14, 2010. They invite volunteers to work at the event.

Lingju Kong ('05) visited NIU this year and gave a talk on his recent research. He is currently an assistant professor at the University of Tennessee at Chattanooga.

BangTeng Xu ('01) visited NIU this summer and gave a talk on his recent research. He is currently an assistant professor at Eastern Kentucky University at Richmond, Kentucky.

Kari Fowler ('04) gave a presentation on her current research at the joint meetings of the American Mathematical Society and Mathematical Association of America in Washington, D.C. in January 2009. She is currently an Assistant professor at the University of Tampa, Tampa, Florida.

William Speer ('69) was on the ballot for a position on the NCTM Board of Directors in 2008.

Dan Lindahl ('03) is currently a mathematics teacher at St. Charles East High School and lives in Cortland, IL. He completed a master's in curriculum and instruction through NIU in 2007 and is currently working on a master's in educational administration through NIU.

Matthew Young ('07) is a mathematics teacher in CUSD 303 and lives in Bartlett, IL. He is married to Leslie Oldham Young, who was a 2007 NIU graduate in biology.

Mark Jaros ('95) gained an emphasis in probability and statistics at NIU and went to UIC to get an M.S. in biostatistics in 1997. After 11 years with the company, Mark is now senior director in the Biostatistics group of Premier Research Group (a contract research organization in the pharmaceutical industry). He earned a Ph.D. in biostatistics from the University of Colorado at Denver in 2008. He, his wife Amy, and their three kids (Hannah, Sophia, and Max) now live in Estes Park, Colorado.

Amanda Mahmoud Wolkowitz ('02) now lives in Overland Park, Kansas, and works as a psychometrician at Assessment Technologies Institute in Stairwell, Kansas. In 2008 she earned a Ph.D. at the University of Kansas from the Department of Psychology and Research in Education in the School of Education. She reports a happy marriage and two beautiful girls, Hannah and Samara.

Ko Hin (Matthew) Lau ('02) stopped by with his lovely wife for a quick visit in the summer. He is currently on the faculty of Cobleskill Community College in New York.

Bharath Sriramn ('02) reports his being promoted to full professor at the University of Montana. He moved to Montana seven years ago and enjoys his family of wife Sabine and three children: Sarah, age 11; Jacob, age 5; and Miriam, age 3.
Bernadette Gucwa Becker ('54) remembers her time at NIU when enrollment was 2,000 and graduation was held on the island in the East Lagoon. She has four married children and nine grandchildren. For over 50 years she and her husband have met regularly with five other couples in which all the women and three of the men are graduates of NIU. (Len Adams ('55) in the group was a math major too).

Gary C. Wang ('96) is a consulting actuary for Pinnacle Actuarial Resources in Bloomington, Illinois. He and his wife, Diana (Bovard) Wang, had their third daughter, Gretchen, in August 2008, who joined big sisters Lillian (then age 5) and Ellen (then age 3) in the family.

James Mills ('67) lives in San Mateo, California, and works as infotech manager for Apple, Inc. in Cupertino, California. He received an M.B.A. in 1975 from the University of San Francisco. He has worked for many multi-national companies and presently does finance for Apple's iTunes Online Store.

Kevin Haertzen ('04) is now an associate professor at the University of Wisconsin Platteville!

Steve Haptonstahl ('02) graduated this spring with a Ph.D. in political science from Washington University in St. Louis. He has accepted a research tenure-track position at the University of California at Davis.

If you would like to see the newsletter in color, please visit: www.math.niu.edu/alumni/

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