

SIXTH ANNUAL NIU UNDERGRADUATE MATH CONTEST

While Professor Harvey Blau was on sabbatical, Professor Peter Waterman continued to organize the local mathematics contest for undergraduates. Cash prizes were \$75, \$50, and \$25. First prize winner this year was Eung S. Lee from Arlington Heights. Second prize winner was Allison Arkin from Skokie, and the third prize winner was John Wiseman from DeKalb. The contest is open to all full-time undergraduates, and participants have a choice of problems for which they present solutions. In order to make it competitive regardless of class standing, lower division students have fewer restrictions placed on their choice of problems to solve than upper division students.

DEPARTMENT OF MATHEMATICAL SCIENCES COMMENCEMENT—MAY 11, 1991

Chair William Blair welcomed the faculty, graduating students and their families and guests, and other guests to the dining room of Neptune Central Residence Hall for the 13th annual commencement. Many students were recognized for excellence by awards and honors presented or revealed.

The *Dean's Award* for academic excellence and service went to Jon E. Sundberg and Marci Maxwell. The *Chair's Award*, based on academic achievement and service to the Department, went to Michael Grady. *Certificates of Merit* based on academic achievement went to Mark Becker, Manju Mallela, and Janet Roegner. *Honorable Mention Awards* based on academic achievement were presented to David Heddens, Beth Higdon, and William Trunkhill.

The *D.R. Ostberg Award*, named after the former chair and based on academic achievement, was given Sheryl Wills. The Award must go to a student who will be continuing in the mathematics program at NIU next academic year. Sheryl is continuing in the Ph.D. program.

Also recognized by the gathered community were the recipients of the *M. M. Wheeler Teaching Awards*: Darcy Dietz, Jodie Fanslow, and Kathleen Vrba. The *M. M. Wheeler Scholarship* winner was Christine Baransky.

Students who would graduate with *University Honors* were William Luebke and Jon Sundberg, while Jon also graduated with Departmental Honors.

Recognized as winners of *NIU Outstanding Women Student Awards* were Lauren Fern, Barbara Genovese, and Amy Gillespie.

Finally, the group also applauded the nomination of Professor Henry Leonard for the *Excellence in Undergraduate Teaching Award*. Professor Leonard was also a nominee of the College of Liberal Arts and Sciences for this award.

COLLOQUIUM SCHEDULE

During the academic year 1990-91 the Department of Mathematical Sciences was pleased to bring a number of scholars to campus to share their expertise with students and faculty. Participating in the series were:

Professor H. Salehi of Michigan State University who spoke on "Spectral dilation and prediction of stochastic process," Professor Peter Hess of the University of Zurich who spoke on

“The asymptotic behaviour in periodic differential equations,” Professor Howard Levine of Iowa State University who spoke on “A Fujita type global existence, global non-existence theorem for weakly coupled systems of reaction-diffusion equations,” Professor Kenneth Goodearl of the University of Utah who spoke on “Prime ideals in differentail operator rings,” Professor S.T. Ali of Concordia University who spoke on “Coherent states in group theory and quantum physics,” Dr. Peter Tang of Argonne National Laboratory who spoke on “Accurate root finding and eigensystems of rank-1 perturbed diagonal matrix,” Professor Gerald Goldin of Rutgers University who spoke on “Infinite dimensional groups and their representations in quantum theory,” Professor David Race of the University of Surrey who spoke on “An introduction to quasi-differential expressions,” Professor Lance Small of the University of California at San Diego who spoke on “The structure of certain Noetherian affice rings,” Professor Roger Horn of The Johns Hopkins University who spoke on “Curious history of the singular value and polar decompositions,” Professor Pesi Masani of the University of Pittsburgh who spoke on “Norbert Wiener and his contributions to mathematics,” Professor Joseph Rotman of the University of Illinois at Urbana who spoke on “Graphs and simple Lie algebras in characteristic two,” Professor Jim Douglas, Jr. of Purdue University who spoke on “Numerical simulation of fractured reservoirs,” and Professor David Young of The University of Texas at Austin who spoke on “The state of the art in sequential and parallel iterative methods for large and sparse linear systems”.

APPLICATIONS-INVOLVEMENT COMPONENT SPEAKERS

The department’s Ph.D. program requires its students to become versed with both academic and nonacademic interests in the mathematical sciences. To foster this aim each year a number of nonacademic mathematical scientists are brought to campus to speak about their work and to interact with the students as to the nature of their working conditions and expectations. Those brought this year may have special interest to our alumni, since one of their number was among the group—Dr. Daniel Pierce who works for Boeing Computer Services in the state of Washington. Also in the group were two former faculty of the Department at Northern—Dr. Marvin Wunderlich who works for the National Security Agency on the east coast, and Dr. Mike Minkoff who works at Argonne National Laboratory. Other speakers in the program were Dr. A. Inselberg of IBM at San Jose, California; Dr. P. Randles of the Naval Research Laboratory; Dr. J. Gustafson of the Ames Atomic Energy Laboratory; and Dr. S. Joshi of the NASA Langley Laboratory.

NEW DOCTORAL RECIPIENTS

For a brief time Northern Illinois University had what was probably THE UNIQUE experience of having a department of mathematical sciences which had graduated more women Ph.D.’s in the mathematical sciences than men. Earlier this summer Vicki Schell completed her Ph.D. with her dissertation in mathematics education. That meant the Ph.D. program had been completed by TWO women and only ONE man! But a few weeks later Rongdong Wang also completed his degree, and the count became even. The next three degrees are likely to go to males, which would place the program in tune with the current national average where only 20% of new doctorates go to women.

The Department is proud of Vicki and Rongdong and all its graduates. Vicki continues as a faculty member at the University of West Florida in Pensacola, while Rongdong continues in a faculty position at Texas A. and I. University in Kingsville.

Among those soon to complete their degrees is Fernando Rincon who was among those having the high honor of receiving a Dissertation Completion Award from the Graduate School for the 1991-92 academic year.

In addition to the full-time students, the Ph.D. program also has a number of part-time students enrolled. And a number of students are electing to “skip” formal entry into a master’s program and enter the program right away! Still the two master’s programs in the Department graduated a total of 22 students during the last fiscal year.

Another soon-to-complete-his-doctorate student, Avijit Purkayastha, was elected to membership this spring in Sigma Xi, the scientific research honorary. Sigma Xi has as its motto “Companions in zealous research” and operates chapters and clubs throughout the United States and Canada. The NIU Chapter has meetings which feature research talks and offers the members opportunity to know others across the campus who are involved in research in science, mathematics, and engineering.

ELECTRONIC MAIL CONFERENCE ON QUANTITATIVE LITERACY

Unique to Northern’s conference schedule this year was an e-mail conference called FOCUS GROUP ON QUANTITATIVE LITERACY. Participants from throughout the country gathered in front of their computer screens to respond to questions posed by moderator Professor Linda Sons and to enter into dialogue with others in the group as messages flew (literally!) back and forth on the “heavy” issues involved in working towards an educated college student who can do at least minimally quantitative reasoning regardless of the field of the graduate’s degree. Participants found it difficult to balance the weight of “home” responsibilities while they tried to participate in the conference. At the usual conference “away” somewhere, a participant is freer to devote a block of time to the issues under discussion. Still, a number of interesting ideas arose which will provide a base for future work by the National Science Foundation (who helped sponsor the conference) and others!

“RETIRING” PROFESSOR JOHN SELFRIDGE

In the Chair’s Corner, notice is given to the international conference held at Northern in May of this summer to mark the retirement of Professor John Selfridge. Professor Selfridge is known for his work in the theory of numbers, combinatorial problems, computing machines, and numerical methods. He is perhaps best known for his work on the factorization of large integers and for his work with Paul Erdos on problems concerning prime numbers. Professor Selfridge’s B.S. degree was from the University of Washington and his Ph.D. from the University of California at Los Angeles. He came to NIU in 1971 as a Professor having been on the faculty at the University of Illinois at Urbana since 1967 and at other places including work as a mathematician at IBM in New York. For one year Professor Selfridge served as Director of Computer Science at NIU and then became Chair of the Department of Mathematical Sciences until 1975. From 1978 to 1986 he served as Executive Editor of MATHEMATICAL REVIEWS, one of the two primary reviewing journals for the mathematics community. During his service there, Professor Selfridge made majors changes in how the reviewing system was run and, in particular, he was responsible for the computerization of its operation. In 1986 Professor Selfridge returned to DeKalb to once more serve as Chair of the Department until the Summer of 1990. During the 1990-91 school year he spent sabbatical time at University of South Carolina. We all wish Professor John Selfridge well in

his retirement years. He expects to remain based in DeKalb, but hopes to do lots of travel to other places when his love for number theory suggests someone there would be interesting to talk with about continued development of the subject! Thank you Professor Selfridge for all your positive contributions to Northern Illinois University and its students!

FACULTY COMINGS AND GOINGS

Returning to the teaching staff in the fall will be Professors Harvey Blau and Sudhir Gupta, both of whom were on sabbatical leaves for the academic year 1990-91.

Expected to be on sabbatical leave during the academic year 1991-92 are Professors Bala Hosmane, Y.C. Kwong, and Peter Waterman. Also on leave will be Professor Dan Grubb who is to spend the year at Kansas State University, Professor Carol Feltz who will work for AT&T, and Professor Carole Lacampagne who will continue one additional year as a program officer for the National Science Foundation. Professor Rina Zazkis will be on the staff of Simon Fraser University in British Columbia during the coming year, and Professor Gunnar Sigurdsson will be doing computer work for the New Vector Group of U.S. West in Seattle, Washington.

Joining our faculty during the Spring of 1991 was Professor Jindrich Nečas and his wife Zdenka Nečasova. Visitors in the department for the 1990-91 academic year were Professors David Race, Manfred Moeller, and Richard Resco. Joining the department for much of the summer has been Professor John Brillhart.

Promoted to associate professor this year were Professors Hamid Bellout, Yoo Pyo Hong, and T. Ramalingam. Professors Martin Lorenz and John Lindsey have resigned.

Our new research associate is Greg Higgins, a former student of the department. Greg replaces Henry Culver.

THE NEWS ACCORDING TO YOU!

It is a joy for us to hear from and about our graduates. Last year a number of you took time to write us a note or update an address for us. We are most grateful to you. Please note that the last page of this newsletter invites you to keep in touch with us; we look forward to hearing from you.

Among those we heard from in response to last summer's newsletter were the following:

Marie Gawlik Smith of Rolling Meadows, Illinois, whose name should have been on the 1965 graduate list were it not for the mistake of your editor.

Betty Berni, who reports a new address in Honolulu, Hawaii and works there as an actuary and office manager for the Wyatt Company, having previously worked for their Washington, D.C. and San Francisco offices. Betty is Fellow of the Society of Actuaries and received NIU degrees in 1964 and 1968. Through Betty we learned that . . .

William Schaefer works for Allstate Insurance Company in Northbrook and resides in Glenview, Illinois.

Kevin Helmick, a 1990 graduate, reported returning to Northern in January to pursue a master's in mathematics education.

Larry Johnson, class of 1973, of Libertyville, Illinois noted an omission in the listing of actuarial examinations offered. The Casualty Actuarial Society is co-sponsor of exams numbered 100, 110, 120, 130, and 135. Larry is a Fellow of the C.A.S. and noted at least three other NIU graduates working in this area at Allstate Insurance Company—R. Jim Young (F.C.A.S.), Rich Yocius (A.C.A.S.), and Dave Schofield.

Tom Kampmier, class of 1966, of Rockford, Illinois, reports having a son who graduated from NIU in business in 1987 and a daughter who graduated from NIU in education in 1990.

James Madden, class of 1984, reports a new address in Elk Grove, Illinois.

Merle C. Allen of Maple Park, Illinois, corrected our copy concerning his name. He received a B.S. in Ed. in 1960 and an M.S. in 1965. Sorry about the mix-up with your name, Merle. Merle also reported that . . .

Theodore Tilton, class of 1965, now lives in Yorkville, Illinois.

Elvessa Aragon, class of 1988, reports being a Ph.D. student at Pennsylvania State University in statistics and working for the Statistical Consulting Center at the university.

Robert Cherry, class of 1973, teaches mathematics at Wheaton Central High School and coaches boys tennis. He is married to a 1973 NIU graduate and they have two children Allison (13) and Brent (9). He has also taught part time at Wheaton College and Triton College.

Kenneth Goodheart, class of 1979, is senior manager for Deloitte and Touche, a major accounting firm. He lives in Schaumburg, Illinois, and married a former NIU student. They have two children—Brian (10) and Nanci (8).

Molly Walsh, class of 1987, reports being in the Ph.D. program at Northwestern University where she is working in statistics. Her dissertation work is being done at Argonne National Laboratory's Reactor Analysis and Safety Division.

Barb Basta, class of 1979 and 1986, reports a new name and address—she is now Barbara Lamb of McHenry, Illinois.

James Reiland, class of 1961 and 1966, reports being in his 30th year (phew!) of teaching at the high school and junior high school levels. Currently he is at Marmion Military Academy in Aurora where he also coaches the math team.

We were sorry to hear that Steven Clements of the Class of 1979 is deceased.

Roger Breisch reports being co-founder of The Webber Group, Inc. of Wheaton, Illinois. They are quality consultants. He and his wife Judi have two children, Kathryn (born July 1990) and David.

Again, wonderful to hear from you all!

ALUMS—WHERE ARE THEY?

Congratulations to the Class of 1966 on their 25th anniversary date. Here's a list of that year's degree recipients and their home so far as the NIU Alumni Association knows. If you know the whereabouts of some listed without a hometown, we would appreciate having that information.

Nancy Lindenmeyer Anderson
Robert Armstrong of Lake Zurich, Illinois
Jack Arneson of Round Lake Beach, Illinois
Christopher Atkin of Salt Lake City, Utah
Milton Awe of Hampshire, Illinois
Mary Wrona Ayd of Elgin, Illinois
Thomas Berns of London, England
Connie Brooks
Constance Gerlock Budnik of Champaign, Illinois
Mansel Burrell
Catherine Bland Bushroe of St. Charles, Illinois
Michael Cahill of San Jose, California
Denis Carley of Bolingbrook, Illinois
Roger Carlsen of Frankfort, Illinois
Terry Carlson of Rockford, Illinois
Eugene Carr of Boulder, Colorado
Lance Chamberlain of Rochester, Minnesota
Beverly Dencer Christensen of Austin, Texas
Donna Constantine of Aurora, Illinois
James Cook of Rochester, Minnesota
Clifton Corzatt of Dundas, Minnesota
Richard Cosgrove
Joyce Staugaard Cross of Fox Lake, Illinois
Joseph Cvetan
Karen Arnett Emry of Marietta, Georgia
Bruce Engstrom of New Haven, Indiana
James Engstrom of Oak Park, Illinois
Patrick Flanagan of Oak Forest, Illinois
Martha Axcell Flesher of Littleton, Colorado
Richard Forst of Wheaton, Illinois
Glen Gardberg of Buffalo Grove, Illinois
David Hanke
John Hennig of Elgin, Illinois
Edward Hultine of Elgin, Illinois
James Kelly
Robert Kerby
Ronald Kiefer of Darien, Illinois
Richard Klaas of Lewisville, Texas
William Klatt of Elgin, Illinois
Thomas Klein of Tecumseh, Michigan
Carmalene Gallucci Kline of West Chester, Pennsylvania

Jean Stephen Lacher of Naperville, Illinois
John Lindquist of Bemidji, Minnesota
Alan Lopatka of Marietta, Georgia
Fred Matejcek of Morristown, New Jersey
Diane Schaedel Miller of McHenry, Illinois
Timothy Mitchell of Northfield, Illinois
Rebecca Fossdal Moon
Thomas Moon
Robert Morrisey of Northbrook, Illinois
Arlan Myers of Aurora, Illinois
Carol Nelson of Golden, Colorado
Edward Osada of Asheville, North Carolina
Sherrill Hallquist Overfield of Palos Verde, California
James Parker of St. Charles, Illinois
Neal Pavlus of Byron, Illinois
Curtis Peterson of Rockford, Illinois
Raymond Pettinger of Northbrook, Illinois
Marylyn Moore Phillips of San Diego, California
Robert Pintozzi of Willmar, Minnesota
Suzanne Feldman Pisano of Rockford, Illinois
Louis Pitz
Emil Plecko
Anthony Portincaso of Bensenville, Illinois
Ann Rainer of Elmwood Park, Illinois
Rodger Randall of Naperville, Illinois
Rodney Randall of Naperville, Illinois
James Reiland of Aurora, Illinois
Melvin Roth of Ottawa, Illinois
Larry Rothlisberger of Elgin, Illinois
Catherine Maynard Russ of Orland Park, Illinois
David Sanders
Carol Schira of Palo Alto, California
Patricia Landers Schultz of Cedarburg, Wisconsin
Gilbert Singer of Idaho Falls, Idaho
Cherry Stoddard of Hoffman Estates, Illinois
Rudy Svoboda of Fort Wayne, Indiana
Dian Lechner Taylor of Winnetka, Illinois
Bruce True of Mt. Morris, Illinois
Eugene Ucen, Jr., of Lincoln, Nebraska
Kurt Vilendrer of Manteno, Illinois
Michael Vincent of Canton, Ohio
Mary Weir
Albert Wiggin of DeKalb, Illinois
Judith Bruns Witt
Arlene Wucka of Wheaton, Illinois