

MATH BRADLEY UNIVERSITY Alumni Newsletter

Note from the department chair ...



As we are in the midst of another school year, I would like to call your attention to several items of particular interest.

First, I would like to mention that Dr. Larry Xue was the recipient of the 2001-02 Caterpillar New Faculty Research Award. Since coming to Bradley in 1997, Dr. Xue has produced an impressive number of high quality professional publications. He has done this while remaining one of our most popular and effective teachers. Dr. Xue is also active in many other aspects of the departmental life. He chairs the Departmental Colloquium Committee and has taught study sessions in statistics to

prepare students for Actuarial Exam I. He earned his Ph.D. in mathematics from the University of Pittsburgh.

Second, the long-anticipated renovation of Bradley Hall may be getting nearer. These renovations could be quite extensive and expensive. This would provide our alumni an opportunity to offer some appreciated assistance.

Finally, as I mentioned in the last issue of this newsletter, I continue to encourage those of you with an interest in and appreciation for mathematics to become involved in your local schools. They are still in need of your help. It is sad to say that many of our entering freshmen do not know the basic algebra, trigonometry and pre-calculus that they need in order to be successful in our freshman-level mathematics courses. The only way that we hope to overcome these deficiencies is for those of us that know and love mathematics to be involved with our schools.

—Dr. Mathew Timm

BU students win math contest

Thirteen teams representing eight colleges and universities competed in the annual Student Mathematics Contest sponsored by the Illinois Section of the Mathematical Association of America. Two teams from Bradley competed at their Annual Meeting held at Illinois College in Jacksonville on March 28.

One of Bradley's teams earned the highest score among the thirteen teams and Bradley's other team was the runner-up. The winning team was made up of three seniors, Jacob Corzine, Carl Westine and Rich Bernstein. All three

graduated with double majors; Jacob in mathematics and German, Carl in mathematics and economics, and Rich in mathematics and computer science.

The second place team was composed of Lena Folwaczny, John Lempkowski and Dan Silvius. Each graduated from high school the previous spring. Lena and John are graduates of Elk Grove High School and Dan from Streamwood High School. Lena is a major in mathematics, John is an electrical engineering major, and Dan is a major in physics.

Bradley students in summer research

The purpose of the Research Experience for Undergraduates is to improve the research abilities of talented undergraduate students in mathematics interested in pursuing advanced degrees. Two Bradley students were selected for an REU during summer 2002.

Whitney Bush, a senior from Eureka with a double major in mathematics and sociology, attended the REU at the University of Illinois in Champaign-Urbana. She was on a team of five that studied evolutionary game theory and social networks. They used Markoff chains to determine the change of stress levels of persons as they had experienced a series of supportive contact with others. She said, "It was nice to apply the math I had earlier learned."

Carl Westine attended the REU at Carnegie-Mellon University in Pittsburgh. During the seven weeks he enrolled in two courses, mathematics of finance and MAPLE programming. These courses were needed to write his paper, *On the Pricing of Perpetual American Put Options*. There were thirteen other students at the REU.

Carl is a senior from Salem, Oregon. He studied at George Washington University during the fall 2002 semester. His second major was in economics. In addition, Carl took most of the courses required by the actuarial science program in mathematics and passed the actuarial Exam 1. He began graduate studies in mathematical finance at Carnegie-Mellon this fall.

Mathematical chair profile—Jerry Hahn

Dr. Jerry Hahn served as chair of the Mathematics Department for four three-year terms. The last chair to have served twelve years was Dr. Marvin Moore. Dr. Hahn joined the Department in 1969 as Dr. Moore served his last year at Bradley.

Dr. Hahn's academic training was in electrical engineering. Before coming to Bradley, he was engaged in research for the U.S. Navy at the Applied Physics Laboratory of Johns Hopkins University in Baltimore for two years. Before that he had a graduate research assistantship at the Research Institute at the University of Denver. Most of this research was for the Air Force. He earned his Ph.D. from the University of Denver in 1967, writing his thesis on electro-magnetic propagation.

He studied a broad range of mathematics to write his Ph.D. thesis. Then at both research institutes he applied mathematics to much of his research, utilizing a great deal of probability and statistics at Johns Hopkins. With his strong background in mathematics and an appreciation for the wide variety of applications of mathematics to his work, he decided to teach mathematics. Dr. Moore said, "He was definitely well prepared in applied mathematics."

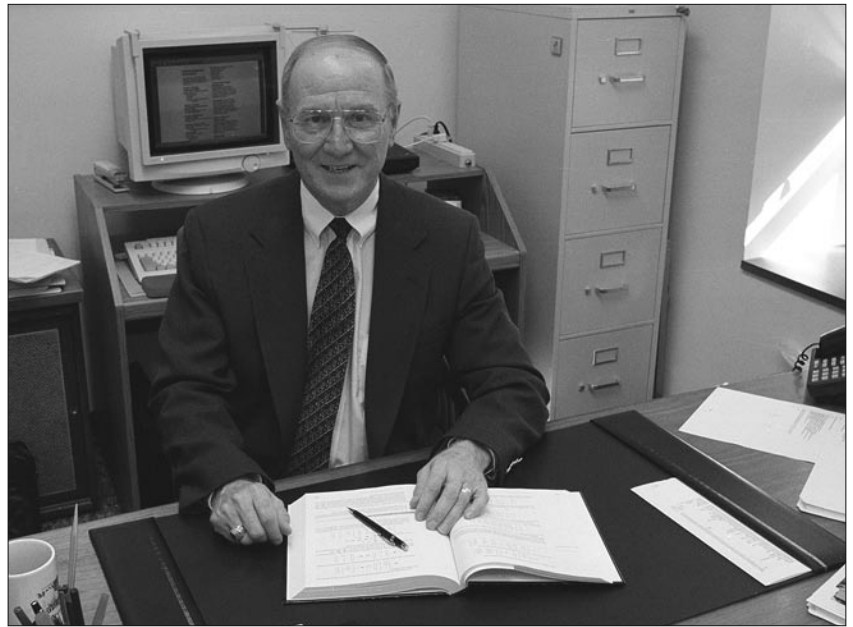
Jerry was born in Chicago Heights in 1940. He graduated from Bloom Township High School where he was the basketball team's student manager for four years. The team made several trips to the Illinois State Tournament in Champaign.

As a major in electrical engineering, he earned his bachelors of science at Rose-Hulman Institute in Terre Haute, Indiana in 1962. He went on to earn his M.S. degree at Rose-Hulman in 1964.

While at the University of Denver he met his wife Linda. She is a graduate of Colorado State University and was a secretary at the Research Institute. In Peoria, Linda worked in the office of a local insurance agency for 20 years.

Jerry and Linda have two daughters. Lara lives with them. She has worked in food preparation at Chuck E. Cheese for a number of years. Kris graduated from Drake University with a major in business. After graduation she worked in human resources at the Peoria office of the architectural firm of Phillip Swager and Associates. She is married to Brian Jockisch who works in his family's beverage distributorship in Peoria. They have a 6-year-old daughter and a set of 4-year-old twins, a boy and girl.

As Dr. Hahn began to teach in 1969, the Department had 18 full-time faculty members. In the fall of 1970, the University announced a severe drop in student enrollment. Due to subsequent financial difficulties, the University required the Department to reduce the number of full-time faculty until it dropped to 10. Not only were those difficult years for the faculty who left Bradley, there were several years of stress for those who survived.



Dr. Hahn was a close colleague of Walt McCurdy. Professor McCurdy joined the Department in 1957. After a bout with cancer, he died in 1982 at age 52. Jerry remembers Walt as someone who was always concerned about students, a "first rate" member of the Department.

Over the years, Dr. Hahn has taught the numerical methods course many times. He introduced technology into the course as it became available, requiring a great deal of extra effort. Presently the course is using MATLAB. He believes students should be encouraged to use technology as appropriate.

Dr. Hahn became the chair of the Department in 1977. The twelve years while he was chair could be characterized as being very stable. Student enrollments were steady. He was noted for conscientiously taking care of the responsibilities as chair.

When Claire Etaugh became Dean of the College of Liberal Arts and Sciences in 1992, Dr. Hahn was appointed as Associate Dean to the College. In this position, he is responsible for all LAS student-related issues and chairs the University General Education Committee. In addition, he teaches half-time in the Department.

In 1994, he became involved with setting up the Degree Audit Reporting System, doing all of the original DARS coding for the University. Since 1998, this system has permitted students to receive current and accurate information on their progress to a degree at Bradley.

As Dr. Hahn follows the mathematics majors after graduation, he is pleased to see many of them successfully enter careers or complete graduate degrees. He said, "We have been able to attract some very good students to our programs."

Since its founding in 1897, nine heads or chairs have served the Mathematics Department: Dr. Clarence Comstock, 1897-1939; Dean Arthur Gault, 1939-1958; Dr. Marvin Moore, 1958-70; Dr. Nelson Brigham, 1970-71, Dr. A. Wayne McGaughey, 1971-77; Dr. Jerome Hahn, 1977-89; Dr. Gerald Jungck, 1989-95; Dr. Mike McAsey, 1995-2001; and Dr. Mat Timm as present chair.



Alumni profile—Dan Smith '77

The Marvin G. Moore Excellence in Mathematics Award was first awarded in 1971. The outstanding senior in mathematics in 1977 was Dan Smith. Dan and each of his five siblings graduated from Bradley. Cathy and Peggy majored in computer science, Jeanne in education, Jerry in physics, Rich in biology, and Dan in mathematics.

Dan enrolled at Bradley as a pre-med student. He graduated from Morton High School with a background that permitted him to begin his studies at Bradley by taking several sophomore-level courses, including Calculus III. Calculus went very well but a chemistry course did not. This convinced him to become a math major.

Dan has fond memories of his mathematics professors. Dr. McGaughey was his first math professor. He said Dr. Jungck had an interesting and energetic teaching style. He found Dr. Sastry to be very amusing. All of the math faculty were helpful, Dan said, but especially Professor Tippett. While at Bradley, Dan was an active member of Alpha Phi Omega, a service fraternity and was a math tutor for the department. During those years, he worked part-time at the Coast-to-Coast Hardware Store in Morton. With scholarships, he was able to graduate without any debt.

Upon graduation, Dan studied at the College of Law at the University of Illinois for one year. He then worked one year for the Appalachian Research and Defense Fund in

Barbourville, Kentucky. He then went to law school at Notre Dame University, graduating in 1981. While there, he worked for legal aid services in South Bend. Then he took a position with legal aid in Anderson, Indiana.

In 1986 Dan became a staff attorney at Prairie State Legal Services Inc. in Peoria. Their area covers five counties. He tends to do legal work on housing cases. In one case, the Pekin Housing Authority had not adjusted the cost of utilities for a number of years. This resulted in about 500 tenants paying more rent than was lawful during that period. Much math was needed to estimate extra rent of each tenant. In a class action suit, the Housing Authority agreed to pay about \$200,000 to the 500 tenants.

Dan and his wife Jeanne, a physician, were married in 1997. They have two three-year-olds, Luke and J.J. She has reduced her medical practice to one day per week, working at Mother Francis Krasse Family Health Center on the southside of Peoria and the St. Francis Community Clinic. She is also the director of Gabriel Project in which several Peoria area churches provide crisis pregnancy services.

Dan's brother Jerry taught in Bradley Computer Science Department until his death in 1992. He was very active in Right to Life activities. Both Dan and Dr. Smith are now on the boards of Central Illinois Right to Life Incorporated and Family Resources Center.

Between Dan and his five siblings, they earned ten degrees from Bradley University. This is an achievement that may not be equaled by any other family at Bradley.

News from recent graduates

Carl Westine '03 is enrolled in the Ph.D. program in mathematical finance at Carnegie-Mellon University.

Matthew Occhipinti '03, who also majored in mechanical engineering, has an engineering position at the Cutler-Hammer Division of Eton Corporation in Lincoln, Illinois, where he designs electrical products.

Cynthia McGowan '03 has a position in pricing in the procurement department at Ratheon Technical Services in Indianapolis.

Stephen Kohn '03, who also majored in computer science, works for Discover Card Services in information technology. He lives in Buffalo Grove, Illinois.

Ricky Kimalat '03 passed the Society of Actuaries Exam 2 this past summer. He is now in the midst of his job search.

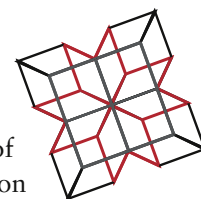
Jacob Corzine '03 is a student at Concordia Lutheran Theological Seminary in Ft. Wayne, Indiana.

Kenny Albright '03 is studying for the GRE in Mathematics. He plans to begin graduate work in fall 2005. Until then, he will find work near his home.

Phillip Alexander '02 is a graduate student in computer science at the University of Illinois in Urbana-Champaign.

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Problems of the Week



Since 1997, Dr. Alberto Delgado has coordinated the Mathematics Department Problem of the Week. Each week while classes are in session a new problem appears on the departmental Web site, www.bradley.edu/las/math. All 169 problems and solutions to date are still available at the site.

During the spring semester of 2002, the 14 problems received 170,000 hits from all over the world. Geometry problems tend to draw the most hits. Problem 127, the most

popular ever, received over 15,000 hits.

About a third of the problems come from

PROBLEM 127

$\frac{1}{6} = .1666\dots$ Are there any other fractions with the property that $\frac{a}{b} = .abbb\dots$?

suggestions submitted by problem solvers. Another third are adaptations of problems proposed in math journals of the early 1900's. Professor Delgado composes the rest.

Each semester he attempts to include at least one problem from each of the following areas: geometry, algebra, calculus, logic puzzles, probability, and discrete mathematics.

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Department of Mathematics
College of Liberal Arts and Sciences
1501 West Bradley Avenue
Peoria, IL 61625

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Stephanie Aneloski McCollom '02 teaches mathematics at Woodruff High School in Peoria. She has been an assistant track coach at Bradley.

Kyle Bloyd '02 teaches mathematics at Limestone High School.

Jeffrey Herrmann '02 is in marketing with TCF Bank in Willowbrook.

Kasi Long '02 is an actuary trainee in the fire actuary division at State Farm Insurance in Bloomington.

Jillian Martens '02 is a graduate student in mathematics at Rice University in Houston.

Nathan Pauli '02, who was also a physics major, is a graduate student in physics at the University of Illinois, Urbana-Champaign. In June, he married Angela Null '02, an elementary education graduate in middle school mathematics.

Courtney Pelowski '02 is an assistant actuary at Jefferson Pilo Financial in Omaha.

Christopher Stapel '02 is teaching mathematics at Boston Community Leadership Academy in Massachusetts.