

# Mathematics and Statistics Department

November 1996

## INSIDE

Things Current and To Be . . .	1
News From Alumni . . . . .	1
More Tidbits From The Rankin File . . . . .	2
A Leon Hall Experience . . . .	2
News From The Department . . . . .	3
New Faculty . . . . .	3
Competition . . . . .	4
In Memorium . . . . .	4
Comments From The Chair . . . . .	4
Contributors . . . . .	5

Mathematics  
 and Statistics  
 Department  
 University  
 of  
 Missouri-  
 Rolla

URL:  
[www.UMR.edu/~mathstat/](http://www.UMR.edu/~mathstat/)  
 e-mail:  
[mathstat@UMR.edu](mailto:mathstat@UMR.edu)

**Reminder:  
 Phonathon will be  
 held January 26-29,  
 1997.**

## Things Current and To Be

As you read this Newsletter, you will find our staff has been augmented by several rather outstanding young assistant professors. This enables us to present more programs, all up-to-date and better presented to our students.

The number of papers published and delivered at various meetings has increased rapidly, as well as attendance at mathematics teaching organizations and participation in mathematics contests by our students.

Probably the most noticeable change seen by those visiting the campus next year will be the new quarters for the department. The Rolla Building is being completely overhauled at over two million dollars expense. So we invite you to drop in and see how you like it.

## News From Alumni

**JOSEPH K. KINGSTON** (BS '67, PhD '78) is currently employed as Capacity Planner by Mercantile Bank. His address is 12732 Lonsdale Drive, Bridgeton, MO 63144-1365.

**HENRY P. DUVALL** (BS '62), address 11100 30th Place SW, Seattle, WA 98146-1720, is Manager Payloads Engineering Certification, Boeing Company. Henry writes that he keeps busy flying back and forth to Europe as a member of a European Joint Airworthiness Committee.

**WILLIS L. BROWN** (BS '70), 689 Country Manor Ln., Creve Coeur, MO 63141-6606 is Loss Central Consultant, Amerisure Companies, St. Louis.

**BRADFORD J. KLINE** (BS '88), 4820 Nightingale Drive #D301, Colorado Springs, CO 80918, is an Assistant Professor at the US Air Force Academy. Brad completed his dissertation, "A Global Boettcher's Theorem" and received his PhD from the University of Illinois, Champaign-Urbana last spring.

**WILLIAM M. (BILL) BLACK** (BS '72), is currently teaching chemistry at Kewanee High School, Kewanee, IL. He will receive the MS in Math (specialization in Mathematics Education) from Northern Illinois University in May. Bill plans to be in Rolla for his 25th reunion in 1997.

**RAYMOND F. FORD, JR.** (BS '70), 5515 Skyway Drive, Missoula, MT 59801-9256, has been promoted to Professor in Computer Science, University of Montana, Missoula, MT. He now serves as special advisor to the Provost on information technology.

**WILLIAM G. WILDING** (MS '88) was married August 5, 1995 to Cynthia Haydon, a graduate of MU-Columbia (AB '88) in Art-History. He is Assistant Professor Mathematics at the University of Southern Indiana, Evansville, IN. Their home address is 3126 Dearborn Street, Evansville, IN 47712-4671.

**ADAM L. WINEINGER** (BS '92, MS '94) is finishing his "second year at MU School of Medicine and looking forward to my 2 years of clinical training ..." Wife **SHELLY ANN (MILLER) WINEINGER** (BS '91, MS '94) is a computer programmer, Missouri Highway and Transportation Department, Jefferson City. Their home address is 1700 Forum #2302, Columbia, MO 65203.

**THOMAS D. AKERS** (BS '73, MS '75), 1707 E. Hedgecroft, Seabrook, TX

77586, astronaut and recently promoted to colonel, was part of the crew that picked up astronaut Shannon Lucid from the Russian Space Station Mir. He holds the American space walk record of 29 hours and 40 minutes walking in space. This was Tom's fourth space shuttle flight. He returned to UMR to speak on October 5.

**LINDA PENAS** (PhD '85) 600 Central Avenue #355, Riverside, CA 92507 writes "I am teaching full time in the Department of Statistics at the University of California, Riverside and part time at Riverside Community College.... This past year I was named Distinguished Teacher of the Year for the campus."

**WARREN E. KRUEGER** (BS '66) is Marketing Research Manager for Hallmark Cards, Inc., Kansas City, MO. His home address is 11900 Cherokee Ln., Leawood, KS 66209.

**CATHY JANEEN CORLEY** (MS '87) Operations Research Analyst with the US Army in Leavenworth, KS writes that she has made several trips to the Pentagon. "With so many people working there and with such an unusual floor plan, there must be a thesis or two waiting for someone (statistics, optimization, queuing)!" She is statistician for her organization's basketball team having finally "put my stat classes to good use." She lives at 660 Evergreen Street, Leavenworth, KS 66048-4402.

**CHERYL DIANNE TEFFT** (BS '89) 3105 Windswept Drive, St. Charles, MO 63303-6449 runs her own business: Calligraphics, P.O. Box 14, St. Peters, MO 63376. It is a one-person company offering a variety of calligraphy (especially wedding), and is growing rapidly.

**ROBERT L. HOLLIDAY** (BS '72) 212 West Scranton Avenue, Lake Bluff, IL 60044-2032 is

Professor of Mathematics and Computer Science, Lake Forest College, Lake Forest, IL.

**JOHN R. RIGGS** (MST '67) 8400 Red Rock Road, Eden Prairie, MN 55347-1427 is Mathematics Instructor at Cambridge Community College, Cambridge, MN, having been so for eleven years. He graduated from William Mitchell College of Law in May 1995, passed the Minnesota Bar exam in the summer of '95 and was admitted to the Minnesota Bar that year.

**MICHAEL L. HUFF** (BS '82) 7715 Lone Meadow Court, Houston, TX 77095-4469 is a consultant for Conoco, Inc., having been with the company for 14 years. Michael and Delia are blessed with 3 children ages 6, 4 and 1.

**ANDREA VORWARK** (MS '94) writes that she is considering returning to graduate school. She and her husband, **TERRY HOBBS** (MS '91), are working at a technical college in South Carolina. They like it there, but "don't think we'll live here forever."

**CURT KILLINGER** (BS '73) with Texaco Technology, Houston, Texas sent Christmas best wishes to the department. Address: 14823 Preston Park Drive, Houston, TX 77095.

The marriage of **KHANH T. NGO** (MS '94) and Kim Ngoc Tran took place at the Bethel Assembly of God, Quincy, IL on December 16, 1995.

**GRANT** (BS '92) and **DEVON** (BS '92) **CHRISTENSEN** 13412 Strobel Drive, Russellville, MO 65074, announce the arrival of daughter Samantha Jae on January 28, 1996.

## More Tidbits From The Rankin File

"Students today depend upon paper too much. They don't know how to write on a slate without getting chalk dust all over themselves. They can't clean a slate properly. What will they do when they run out of paper?"

Principal's Association, 1815

"Students today depend too much upon ink. They don't know how to use a penknife to sharpen a pencil. Pen and ink will never replace the pencil!"

National Association of Teachers, 1907

"Students today depend upon store-bought ink. They don't know how to make their own. ... This is a sad commentary on modern education."

The Rural American Teacher, 1929

"Students today depend upon these expensive fountain pens. They can no longer write with a straight pen and nib (not to mention sharpening their own quills). ..."

PTA Gazette, 1941

"Ball point pens will be the ruin of education in our country. Students use these devices and then throw them away. The American virtues of thrift and frugality are being discarded. Business and banks will never allow such expensive luxuries."

Federal Teacher, 1950

"Students today depend too much on hand-held calculators."

????????????????, 1985

**PROBLEM:** A number, when divided by two, the remainder is one; when divided by four the remainder is three; when divided by five the remainder is four; and when divided by six the remainder is five. What is the number? Generalize and obtain the first **three** numbers.

## A Leon Hall Experience

When I was a freshman at UMR in 1964, ..., I had Professor **ERKILETIAN** for Calculus I at 7:30 AM. There were sixty students in an old, creaky-floor, cafeteria quonset hut re-vamped into a classroom. The door opened to the outside and was in front of the room, so no one could slip in unnoticed. One morning I overslept, but hurried to class anyway, thinking that being late was better than missing entirely, and arrived ten or fifteen minutes late. Before that day I hadn't paid too much attention to how often people were late to class, but apparently Professor Erkiletian had, because I was the proverbial last straw. When I came

in, he stopped his lecture, made some choice remarks about not putting up with these interruptions any longer and walked over and locked the door. After that, he locked the door every day at 7:30 on the dot before he started to lecture. For the first few days there was some scuffling, muttering, and even a knock or two outside after class had begun, but these were ignored. Professor Erkiletian was not interrupted any more that semester.

Signed: **LEON HALL**

Editors note: the statue of limitations has exonerated you, Professor Hall, and in view of your subsequent huge success in the field of mathematics, you are hereby **personally** excused. But next time, please try to be on time!

## News From The Department

Professor **ALBERT GOODMAN** gave a talk at the First Jamaican Conference on Group Theory and its Applications at the University of West Indies in January 1996. In July 1996 he gave a talk at a NATO Advanced Study Institute on Graph Symmetry at the University of Montreal. And in August he was awarded a three-year research grant from NSF for research on asymptotic properties of finite groups.

Professor **TIM RANDOLPH** presented a paper on "Evaluation Semigroups and Robust Stability of Evolution Operators in Banach Spaces" at an AMS conference in Baton Rouge. He served as visiting instructor at the University of Washington in Seattle during the summer of 1996. He is an organizer for "Show-Me" lecture series in analysis—a jointly sponsored lecture occurring each semester among the campuses of UM-Columbia, UMSL, Washington University

and UMR. Professor Randolph will be at UMC this spring on a faculty exchange program. Professor Randolph has also published many papers and given many talks nationwide.

Professor **ČASLAV STANOJEVIĆ** will be on a development leave this spring.

A paper entitled "Point-valued mappings of sets" by Professor **MATT INSALL** appeared in the *International Journal of Mathematics and Mathematical Sciences* in 1995.

Dean **JOHN FULTON** left us last summer to become Associate Provost for Academic Affairs at Virginia Tech. We all wish him well in his near endeavor. Professor **GLEN HADDOCK** is serving as Interim Dean of the College.

Professor **SELDEN TRIMBLE** has taken early retirement. He came to UMR in 1971 and was promoted to Associate Professor in 1978. He was a visiting professor at Cincinnati (1976 and 1984), at Texas Tech in 1985-86, and at Kentucky in 1986. Professor Trimble still maintains an office in the mathematics department and can be reached here by any of his former students.

Chairman **TOM INGRAM** was invited to give an hour talk at a topology conference at California State University-Chico last May. Professor **ROB ROE** and graduate student **TOM KACVINSKY** also attended.

In October, the UMR Parents' Association honored **DAVID VLIENER** with their Outstanding Graduate Teaching Assistant Award for 1995-96. Our congratulations go to David for this fine accomplishment.

It should be noted that this is the eighth time in the past decade that a teaching assistant in the Mathematics and Statistics Department has won this award.

Professor **ROGER HERING** presented a paper "Attracting Sets in Dissipative Systems" at the Second World Congress of Nonlinear Analysts in July 1996 in Athens, Greece.

Professor **MIKE HILGERS** received an NSF grant for his work in the

mechanics of highly deformable membranes. Over the summer, he submitted two papers related to this grant, which have been accepted for publication. He was also inducted as an honorary member of the freshman honor society. This past spring he gave an invited talk at Texas Tech University. Professor Michael Hilgers' big news for the year is that he was married to Lois Katherine Gornet of St. Louis on November 30th. The wedding was held at Hope Lutheran Church in South St. Louis and the Mathematics Department was invited. Lois is a registered dietitian and a licensed nursing home administrator. She is hoping to find a position in the Rolla area. Congratulations Mike!

## New Faculty

We are happy to announce the addition of three full-time assistant professors. All have very impressive records.

**TOM KIRCHOFF** comes to us from Iowa State University, where he will receive the PhD in statistics in December 1996 under Professor Kenneth J. Koehler. His masters degree in statistics was awarded there in 1992. He also holds a MS in mathematics and a BBA in accounting from the University of Oklahoma. In August 1996, he presented a paper jointly with Dr. Koehler at Joint Statistical Meetings in Chicago, titled Nonparametric Estimation of Labor Hour Curves. His teaching experience includes both statistics and mathematics courses.

**VY LE** received degrees from the University of Utah, the PhD under Professor Klaus Schmitt in 1995 after three years as Teaching and Research Assistant at Utah. During 1995-96 he was a post-doctoral fellow at the University of Colorado.

**MITCHELL WATNIK** holds the PhD degree in statistics from the University of California-Davis after a BA in Quantitative Economics from California-San Diego and an MA in statistics from California-Davis. Professor Watnik's dissertation "Non-Nested Model Selection: the Modified Cox Test", was done under Professor Wesley Johnson. During five quarters of teaching at UCD he was awarded their Teaching Award for Outstanding

Graduate Students. He is co-author of a paper entitled "Using Technology in Education: When and Why, Not How" to appear in the *Journal of College Teaching*, November-December 1996 issue. Two other papers are ready for inclusion in statistics periodicals.

We heartily welcome these new professors and wish them every enjoyment in their stay in Rolla and UMR.

## Competition

The first Annual Missouri MAA Collegiate Mathematics Competition was held April 11-12, 1996 during the Missouri Section, MAA, meeting in Cape Girardeau. Sixteen teams from eleven Missouri colleges and universities participated.

The competition was divided into two, two-and-one-half hour sessions, and, in each, team members attempted to solve five ten-point questions.

UMR's Team 1, consisting of **HAL BURCH** and **MARK ALLEN** and sponsored by UMR Professor **DAVID GROW** placed fourth. Students **SCOTT POPE** and **JOHN SEIFFERT**, both freshmen, Team 2 made a respectable showing.

The next competition will be held at Missouri Western State College in St. Joseph, April 10-11, 1997.

Anyone interested in finding the problems and solutions to the 1996 contest may do so on the World Wide Web at <http://153.91.1.112/~curtisc/maa/contest.html>.

## In Memorium

Dr. Ed W. Huffman, 53, Springfield, MO, a mathematics professor at SMSU, passed away Sunday, November 3, 1996, in St. John's Regional Health Center.

Dr. Huffman was born December 29, 1942, in Hayti, MO, the son of Edwin J. And Leo Huffman. He was united in marriage to Shirley Carpenter, January 9, 1965.

He graduated from Braggadocio High School, completed an Associate Degree at School of the Ozarks, a Bachelor of Science and Master of Arts at Southwest Missouri State, and completed a PhD in mathematics at the University of Missouri-Rolla. Dr. Huffman was a professor for over 20 years at SMSU. He loved nature, gardening, traveling and entertaining in his home.

Services were held at 10:00 am Tuesday, November 5, 1996, at Ayre-Goodwin-Lee, a Heritage Funeral Home at Rivermonte with the Reverend Jim Downing Sr. Officiating.

Attending the services from UMR were Dr. and Mrs. Troy Hicks, Dr. Leon Hall, Dr. Louis Grimm, and Dr. Tom Ingram.

Memorials may be made to the SMSU Foundation, 901 S. National, Springfield, MO 65807, designated for the Ed Huffman Mathematics Scholarship Fund.

## Comments From The Chair

Sometime next year the Department of Mathematics and Statistics will be moving to the Rolla Building. As I write this, a \$2 million renovation of the building is taking place. The building will be completely gutted and then renovated to the department's specifications. The basement of the building will be made useful and an elevator will be installed in order to meet ADA standards. When it is completed, the building will have enough space to house both the faculty and the graduate students of the department along with the emeritus faculty and those adjunct faculty we hire from time to time. The building will also contain one full size classroom and a seminar room suitable for small graduate courses. What will become of the space we presently occupy in the Mathematics and Computer Science Building is not

certain. Computer Science will likely get the lion's share of the space to allow them to have some room for expansion as well as to house their graduate students on the same floor with the faculty. In addition, the new interdisciplinary program in Management Systems will probably occupy some space in this building as well. Our move will also make room for an expanded computer center which presently occupies the basement of this building.

On January 1, 1972, the Mathematics Department, the Computer Center and the Computer Science Department moved from Harris Hall into the newly constructed Mathematics and Computer Science Building. Unfortunately, a shortage of funds caused the campus to build the building containing less space than was originally planned. You may recall the painted concrete block wall on the west side of the building. This is where the rest of the building was to have been built. As a consequence of reducing the size of the building, the entire space requirements of both the Mathematics Department and the Computer Science Department had to be met by putting the graduate students into office space elsewhere on the campus. Now, after twenty-five years of inadequate housing of the department, we will finally have all of our instructional staff in mathematics and statistics under the same roof. If you have not been to campus in some time, next year at homecoming would likely be a good time to come back to the campus and see the new facilities the department will be occupying. As the time to move draws near, we will try to keep up-to-date information on the scheduled completion of the building posted on the department's home page--[www.umar.edu/~mathstat/](http://www.umar.edu/~mathstat/).

The dates for this year's **phonathon** are January 26-29, 1997. The faculty and students of the department are gratified by your continued strong support of the department through the phonathon. I anticipate that, once again this year, our callers will be members of the student chapter of the Mathematical Association of America so you will be able to talk to students some of whom benefit directly from your donations. This year there is a special challenge fund of \$100,000 to

be used to match gifts ranging from \$50 to \$250 from those who did not contribute last year. If this includes you, please give some consideration to pledging during this year's phonathon. By doing so, you can "double" your gift. Unlike some institutions, your donations come directly to the department so we truly benefit from your gifts. Your generosity has allowed the corpus of the Alumni Endowment to be expanded to nearly \$25,000 which now produces over \$1200 annually in scholarship money for undergraduates. In addition, your contributions have allowed us to send faculty and students to meetings we could not have managed otherwise. Drs. Hall and Hering attended conferences in Europe last summer. Dollars contributed by alumni allowed us to assist in this travel since state funds may not be used for travel outside North America. We also sent three students to a SIAM meeting in South Carolina paid out of the donations to the development fund. I hope you agree that we are investing your gifts wisely by putting some into endowments, some into direct scholarship support and spending some to assist faculty and students in attending meetings which they might otherwise miss.

Finally, as usual, my thanks go to our "Editor-in-Chief", Dickran Erkiletian, the Department's Administrative Assistant, Martha Grisham, and the Department Secretary, Tina Martin, for the preparation of this newsletter. Without those three, this newsletter would never have gotten to you. Please continue to keep us up-to-date on your activities. If you enjoyed finding out through this newsletter what others are doing, you can rest assured that others would be equally interested in your activities since you have left UMR.

Tom Ingram

## Contributors

### Matching Gift Companies

Conoco Inc.  
NCR Corp  
Hewlett-Packard Company  
AT&T Foundation  
Allied Signal Foundation Inc  
Union Electric Charitable Trust  
Texaco Philanthropic Foundation  
Price Waterhouse Fdn.  
Engelhard Corporation  
USAA (United Services Auto Assoc)  
Amerisure Companies  
Texas Instruments Foundation  
SBC Foundation

### Gifts less than \$100

Thomas D. Akers, '73  
Charles F. Alexander, '64  
David E. Anderson, '90  
Vicki M. Andraea, '70  
Jennifer A. Andrzejewski, '88  
John A. Armon, '87  
Thomas A. Berendzen, '68  
Lawrence A. Boberschmidt, '65  
Linda L. Brady, '70  
William O. Bray, '76  
William F. Breig, '62  
Van W. Brock, '63  
Harmon C. Brown, '72  
Willis L. Brown, '70  
David C. Bruder, '83  
James T. Bruening, '71  
John W. Carlson, '70  
Grant A. Christensen, '92  
Devon L. Christensen, '92  
Willard D. Coates, '74  
Callie J. Daniels, '91  
James A. Dietrich, '66  
Anita S. Dixon, '92  
Edward W. Dorrell, '68  
Anita Dunn, '87  
Henry P. Duvall, '62  
James Eastman, '73  
Barbara Edson, '64  
Jimmie R. Eidson, '65  
Larry E. Estes, '69  
Corta C. Etheredge, '73  
Jesse D. Evans, '65  
Colleen A. Fitzgerald, '74  
Glenn R. Fletcher, '95  
Peggy A. Folta, '83  
Raymond F. Ford, '70  
Donald H. Galli, '74

August J. Garver, '64  
Harold A. Glenn, '66  
Nora A. Glover, '69  
John V. Grice, '78  
James M. Guffey, '85  
Elizabeth M. Hadler, '88  
Harold W. Hager, '70  
Linda M. Hand, '82  
Larry G. Haney, '68  
J. C. Hankins, '76  
Michael G. Hilgers, '85  
Robert L. Holliday, '72  
William T. Howard, '74  
Michael L. Huff, '82  
Ed W. Huffman, '77  
Shirley C. Huffman, '78  
Jeffrey W. Jenness, '88  
Kenneth G. Johnson, '69  
Keith N. Jones, '84  
Leon R. Jones, '69  
Rana E. Jones, '87  
Robert T. Keeton, '74  
John C. Kieffer, '67  
Joseph V. Kingston, '67  
Bradford J. Kline, '88  
Brenda S. Klinkerman, '71  
John D. Kubicek, '75  
Amy M. Lampazzi, '86  
William L. Lane, '73  
Pamela A. Leitterman, '75  
James A. Madison, '68  
Marcel A. Maupin, '78  
Denise A. Mausshardt, '83  
Rhonda L. McKee, '89  
Paul B. Middleton, '67  
James W. Neill, '73  
Janet R. Oakes, '75  
Teri L. Oster, '84  
Neil C. Pamperien, '64  
Kenneth C. Parsons, '74  
Theodore D. Pasek, '65  
Linda M. Penas, '85  
Margaret M. Poepsel, '74  
John B. Prater, '70  
Ralph T. Record, '64  
Paul W. Reiman, '83  
Nancy L. Reiter, '82  
Donald K. Rice, '69  
James L. Richards, '72  
Donna B. Riggs, '94  
John R. Riggs, '67  
Joseph L. Rooks, '73  
Linda M. Saliga, '93  
Julie L. Sanders, '89  
Ivan J. Schirer, '70  
Sherman W. Sherrick, '68  
Marc M. Solomon, '68

Joseph W. Stahl, '69  
John J. Stansfield, '85  
Brenda K. Stokes, '87  
William H. Tanzey, '74  
Harold W. Tarr, '70  
Nancy L. Taylor, '77  
Cheryl D. Tefft, '89  
Mark G. Thalhammer, '74  
Mary L. Trnka, '75  
James C. Wagner, '94  
Michael D. Wagner, '67  
Kendall H. Walden, '67  
Lois J. Walker, '76  
Curtis L. Wells, '70  
Vera E. Wetteroff, '76  
William G. Wilding, '88  
Douglas E. Wilson, '89  
Shelly A. Wineinger, '94  
Adam L. Wineinger, '94  
Alan M. Wolff, '71  
John J. Zenor, '63

**Gifts \$100 or more**

Dennis R. Anderson, '74  
Timothy L. Bannes, '86  
Susan L. Callahan, '78  
Cathy J. Corley, '87  
Kevin T. Davis, '86  
Paul W. Eloë, '77  
William J. Fitzpatrick, '73  
David R. Fogle, '71  
A. Glen Haddock  
Leon M. Hall, '74  
Mrs. Charles (Muriel) Hatfield  
Gary W. Havener, '62  
Victor J. Hegemann, '74  
Patricia T. Heim, '80  
W. Tom Ingram  
John C. Killinger, '73  
Chin-Ming Lee, '70  
David B. Porter, '88  
John K. Reed, '80  
Ray D. Sparks, '68  
Marian R. Wagener, '71

**Department of Mathematics and Statistics  
326 Mathematics/Computer Science Bldg.  
College of Arts and Sciences  
1870 Miner Circle  
University of Missouri-Rolla  
Rolla, MO 65409-0020**

**Non-Profit Org.  
U.S. Postage**

**Paid**

**Permit No. 170  
Rolla, MO**