UNIVERSITY OF MISSOURI-ROLLA
MATHEMATICS AND STATISTICS DEPARTMENT
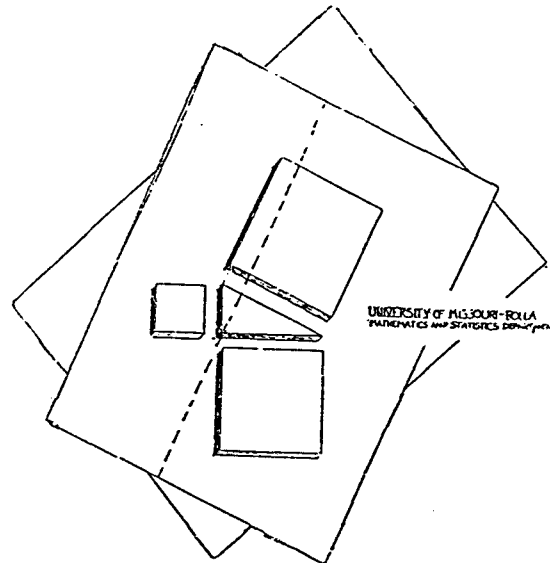
UMR MATHEMATICS AND STATISTICS DEPARTMENT NEWSLETTER
1988-89

This, our second Newsletter in as many years, is designed to bring you up-to-date on the activities and accolades of your fellow holders of UMR Mathematics and Statistics degrees, and of the students who have followed you, as well as of your faculty. As always, your faculty takes great pride in your accomplishments. It is hoped you will continue to inform us of your many and varied experiences as you move forward into more and more interesting and useful endeavors.

The faculty has undergone several recent changes. After six years of excellent leadership, Chairman **LOUIS GRIMM** took a one year leave as visiting professor at the University of Southern California. Professor **GLEN HADDOCK**, who had served previously as chairman, consented to take over as head for two years, after which Professor **THOMAS (TOM) INGRAM** will join us in September, 1989. Professor Grimm, happily, has returned to UMR and will continue with teaching and research.

New Chairman, Professor Ingram, holds the doctorate from Auburn University (1964), and has since served quite actively on the University of Houston faculty. He has directed a large number of masters and doctorate theses. His specialty is in the area of topology, more specifically continuum theory. I am sure you join us in welcoming Professor Ingram to our UMR family.

Promoted to full professor was **AUGUST GARVER**, who has directed the freshman program for a number of years during which commendations have been made at local, state and national levels.

Professor **CASLAV STANOJEVIC** has returned to UMR after being honored as a Fulbright Distinguished Visiting Scholar to the University of Titograd in Yugoslavia.

Professor **TROY L. HICKS** was recently cited by the Mathematical Association of America for his many years of dedication to the Missouri Section. Recognition "as an outstanding teacher" who has been "tireless in his efforts to improve the quality of mathematics education" was made. Professor Hicks has taken part in just about every facet of our UMR Mathematics program, including National Science Foundation Institutes, high school visitations and direction of doctoral dissertations.

Professor **LYLE PURSELL** has retired after 22 years of service. He continues to teach at UMR, and we wish him the best in his years of retirement.

On leave for the 1988-89 school year are Professor **MIN MING TANG**, to Platteville, Wisconsin to contiue research in applied mathematics and Professor **JEAN McKEMIE** to St. Edwards University, Austin, Texas.

New faculty this year are Visiting Professor **John Hatcher**, retired from SMSU, and **ROGER HERING**, Assistant Professor, Ph.D. Southern Illinois.

While faculty members have been actively engaged in many mathematical pursuits, your fellow graduates, as well as some present students, have distinguished themselves and our department. We proudly list some with brief descriptions of their present interests. We would like for all of you to keep us informed as to any inclusions you would like to see in the next Newsletter.

JOHN C. (CURT) KILLINGER, BS '73, is now with Texaco in Metairie, Louisiana. He is also working toward an MS in petroleum engineering and is area UMR Alumni Director. He has kindly tendered us checks, with matching ones from Texaco, for which we are most grateful.

One of our MST graduates, **RETA STEWARD SMITH**, '69 is Curriculum Supervisor for Mathematics in the Springfield Public School System. She holds the specialist degree in mathematics education from UMC ('86). Reta is very active in the Missouri Council of Teachers of Mathematics, and has some publishing to her credit. She was well received on our campus in March 1987 after kindly consenting to meet with and speak to our students and staff.

ROBERT J. LOPEZ, MS '66, Ph.D. (Purdue) is now Associate Professor of Mathematics at Rose-Hulman Institute of Technology, after having taught at the Memorial University of Newfoundland. Bob's main interest is in applied and engineering mathematics. He has served on the Board of Directors of the Mathematics Division of the American Society for Engineering Education.

THOMAS D. AKERS, BS '73, MS '75, is among the first selection of fifteen new astronaut trainees since the Challenger disaster. Tom was principal of the Eminence, Missouri High School, after which he enlisted in the Air Force. Although he is an experienced pilot, he has opted for a "mission specialist" slot where he feels his applied mathematics training can be put to use effectively. We are proud to have participated in some small measure to Captain Akers' success and wish him the very best of everything in his new post.

DENISE ROST MAUSSHARDT, BS '83, teaches mathematics at Raytown, Missouri High School. She writes that she enjoys her work very much. In addition to the usual courses, she hopes to introduce a class in enriched geometry. We appreciate your very nice contribution to the scholarship fund Denise.

A very nice letter from JAMES L. HESS, BS '73, informs us he received the Ph.D. in statistics from Southern Methodist University in '77, taught at Kansas State '77-'80, and is now a statistical consultant for E.I. DuPont de Nemours. He resides in Beaumont, Texas with his wife and four children, including twins.

JAMES R. HAMILTON, BS '73, worked with Illinois Power Company before continuing his studies at the University of Iowa, MS '79 in statistics (actuary science). He then went with the Department of the Army for training as operations research cost analyst before transfer to an overseas location. We all wish James well in this endeavor.

DARRYL I. ROBERTS, BS '68, went with General Motors upon graduation, was called to active duty with the Army in '69 for three years, returned to General Motors and is now with their Electronic Data Systems group. His immediate boss is RUSSELL LESLIE, UMR '72, and a supervisor reporting to him is WILLIAM BOWEN, UMR '71. Darryl, his wife and "five lovely daughters" reside in Livonia, Michigan.

A very nice card was received from TSANG C. HUANG, MS '65, now a United States Citizen and a member of the New York Academy of Science. He lives in New York City and is a consultant with Spiridellis and Associates, Inc.

THOMAS G. WEBSTER, BS '75, entered the financial field in 1980. He now heads his own planning firm known as Keystone Financial Group, in St. Louis.

Professor HARMON C. BROWN, Ph.D. '72, Mathematics Department, Harding University, Searcy, Arkansas writes of his many activities in the teaching area. Professor Brown will be well remembered by his students and fellow teaching assistants here. We are sure he is carrying on his good work at Harding, and appreciate the fact that he has encouraged several of his mathematics and engineering students to come to UMR.

Another pedagogue is TERRI NOELKER WHITE, BS '78, who, after completing certification requirements, took a part-time position at Hardin Central, Hardin, Missouri. She states she spends the rest of her time chasing her one year old daughter, Katie.

A very informative letter was received from COLLEEN A. COLLINS
FITZGERALD, BS '74, Englewood, Colorado. Colleen relates many and varied
experiences with Westinghouse and Exxon involving much travel in her
successful sales career. We wish her well in her new "employment" as a
Mother and youngsters chaser and hope that it won't be too long until she
returns to industry.

JOHN W. CARLSON, Ph.D. '70, is the new Dean of Arts and Sciences at the
University of South Dakota. He moved from Emporia University with eighteen
years of service as Chairman of the Division of Natural Sciences and
Mathematics.

The University of Dayton has presented PAUL ELOE, MS '77, Ph.D. '80,
with their annual Alum Award for Scholarship. He has published 17 papers in
prestigious journals. His citation reads in small part, "His reputation for
creative scholarship has reached international proportions ... in
differential equations and finite difference equations".

The UMR Mathematics Department is deeply grateful for large continuing
scholarships generously funded by GARY HAVENER, BS '62, and ROBERT A. ECK,
BS in Mining Engineering (Petroleum) '43. Gary has his own Havener
Enterprises, Incorporated at Mineral Wells, Texas. Bob, who taught
mathematics at UMR in the 40's, has since engaged in numerous nonacademic
enterprises, has retired, and for the past several years has taught freshman
courses at UMR on a part-time basis.

WILLIAM M. BLACK, BS '72, resides in Cincinnati, Ohio. His interest in
applied mathematics has extended to actuarial science. He is a member of
the American Society of Pension Actuaries. It was a great pleasure to have
him visit us to enlighten our students and staff in regard to recent
developments in his field. Do come again, Bill!

DANA S. NAU, BS '74 (AM '76 and Ph.D. '79, Duke), is Associate
Professor of Computer Science at University of Maryland. Professor Nau has
published many papers, mainly on subjects related to artificial
intelligence. He has received a Presidential Young Investigator Award from
NSF to fund his further research.

The Putnam team did reasonably well this past year, placing 150th
overall in this nationwide competition. ART WOERHIDE, DOUG BULLOCK and JEFF
SHUTTS (a freshman) were among the competitors. Professor ANTHONY BIAGIOLI,
in charge, has hopes of doing much better this year, since Art is still
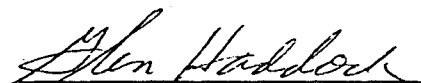here.

Professors GLEN HADDOCK and LEON HALL are faculty advisors for the
Mathematical Contest in Modeling (MCM), a competition organization designed
to stimulate and improve problem-solving and writing skills. UMR has
entered teams for the past two years, with very good showing. In 1987, the
team of PAT BAIN (CS), SEAN FOOTE (Engr.), and KIM THEIN (Math.) were rated
meritorious (top 20%), while the team of DOUG BULLOCK (Engr.), DAVID PORTER
(Math.) and TIM REDDY (CS) received honorable mention (top 50%). In 1988,
the team of DOUG BLAKE (Engr.), BRAD KLINE (Math.), and DAVE SOWDERS (Engr.)
was rated meritorious. The results were most impressive, and we salute the
competing UMR students and their advisors for a fine experience.

Professor **LEON HALL** and **JEFF JENNESS**, UMR graduate student, presented their paper "A Computer Algebra Procedure for Differential Equations" at the MAA, Missouri Section meeting at Washington University.

Dietrich W. Kuhlmann, graduate student in mathematics at UMR was honored by selection as one of the Outstanding Graduate Teaching Assistants of UMR in 1986-87. Subsequently, congratulations were made to Dietrich by the UMR Parents' Association for his "hard work and dedication to academic excellence".

Comments from the Chair: We appreciate very much the support of our alumni in the past and look forward to continued support. There is a number of ways in which our alumni can lend their support. Let me share some of these for your consideration. Helping us locate good students; UMR has exceptional mathematics and statistics programs (every direction we look on this campus people are wanting, needing, and using mathematics and statistics). Providing us with ideas on how we might strengthen our programs, and keeping us abreast of opportunities for mathematicians especially in industry. Financial contributions are always welcome. Funds contributed to the Mathematics and Statistics Department Development Fund are used for scholarships and awards for outstanding and needy students, travel for students to attend professional meetings, and to do those extra things which make the department a great place to be for both the professor and the students. Finally, keep us informed about your own life and career. We will try to share this information about you and others through these Newsletters. Perhaps more importantly our faculty want to know about you. Nothing lifts the spirits around here quite as much as learning that one of our students is doing well. So, let us hear from you, come by and see us, come by and visit with the current crop of mathematics majors; we would love to have you.

Let me close with a special word of thanks to Dickran "Dick" Erkiletian, Professor Emeritus, through whose voluntary efforts this Newsletter was put together. Dick has the distinction of being associated with this department since 1940 and retired some 10 years ago in 1978. He continues to be a vital part in the life of this department.

Glen Haddock
Acting Chairman