

# UNIVERSITY OF UTAH

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## **AFTERMATH**

### **MATHEMATICS DEPARTMENT NEWSLETTER**

(1997-1998)

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#### **A WORD FROM THE CHAIRMAN**

One can try to capture the essence of a department by quoting statistics: 11,000 students enrolled in 350 mathematics classes, a budget in balance, \$1 million per year in grant support, 80 research articles published by our regular faculty of 48. Or one can point to notable honors: our outstanding undergraduates like Jessica Shepherd, recipient of the Alice T. Schafer Award, who turned down offers for graduate study from Caltech and Princeton to go to the University of Michigan; outstanding faculty like Assistant Professor Wieslawa Niziol, awarded a Sloan Fellowship this year, and Associate Professor Davar Khoshnevisan, recipient of the Rollo Davidson Award in Probability Theory. However, what really characterizes our department is its long-standing commitment to excellence in teaching and research coupled with excellent working relationships among faculty, staff, and students. That is what makes our department a rewarding place in which to work and study, and that is the tradition we all strive to uphold.

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I would like to announce the creation of two new tuition scholarships this year. One funded by Alumnus Stephen E. Newman, Jr. of North Kentucky University, class of 1962, and the other funded by contributions from our own faculty. Scholarships like these are especially important now that University funded scholarships have been cut back due

to the budget problems of the past years. These are not endowed scholarships, but we hope to have sufficient funds each year to award one alumnus and one faculty scholarship.

Jim Carlson

#### **UNDERGRADUATE NEWS**

An Undergraduate Common Room was set up in Building 122 using space vacated by the move to the INSCC building. The Commons is a place for undergraduate majors to study and discuss mathematics. It has a small library to which gifts of books are gratefully accepted. The undergraduate SAC, chaired by Cindy Soderstrom, took a leading role in setting up and running the Commons.

Tutoring services have been extended from precalculus and calculus to Engineering Mathematics and Statistics. Judging from the crowded tutoring rooms, the move was the right one.

#### **GRADUATE STUDENTS**

Despite a very competitive environment, the Department did very well in recruiting graduate students. Thirteen new Teaching Assistants and Teaching Fellows will arrive late this summer for the TA orientation session. Sean Sather-Wagstaff and Jon Jacobsen will work during the year to help incoming students with their new teaching duties. Eric Cytrynbaum will be the new GSAC chair.

## **COMPUTING**

The computing staff has installed a switched-hub network that vastly improves communications among our computers. You may have noticed nothing, but it is there, and it will support increased network traffic for many years to come. Many thanks to the computing staff for a job well conceived and well executed.

## **STAFF**

Annetta Cochran has taken over staff supervision and Liesel Thomas and Mary Broadbent have joined the staff as executive secretaries.

## **TEACHING STATISTICS**

During the academic year 1997-98 (excluding the summer), our department taught 354 courses. There were 11,239 students enrolled for 46,312 Student Credit Hours (SCH). Of those SCH, 41% were taught by tenured and tenure track faculty, 20% by instructors and contract faculty, 29% by graduate students, and 10% by adjunct instructors.

## **DEGREES AWARDED IN 1998**

Including teaching majors, there are slightly under 200 undergraduates majoring in Mathematics. In June, 38 students will receive a baccalaureate degree in Mathematics. A total of 9 M.S. degrees will be awarded. Students receiving the Ph.D. in Mathematics in 1997-1998 are: Hsungrow Chan, Chi-Kan Chen, Jeffrey Fletcher, Michael Hohn, Andrew Kuharsky, Takayasu Kuwata, Timothy Lewis, Natasa Macura, Eric Marland, Igor Mineyev, and Min Xie.

## **ALICE T. SCHAFFER PRIZE**

The Alice T. Schafer Prize is awarded by the Association for Women in Mathematics to recognize excellence in Mathematics by a female undergraduate student. This year, Jessica Shepherd of the University of Utah was co-winner (with a student at the University of Texas) of this award.

## **PUTNAM MATH CONTEST**

Every December, the William Lowell Putnam Mathematics Test is open to all undergraduates in the United States and Canada. The test is famous for its difficulty and only the best undergraduate mathematicians compete. There is both team and individual competition. This year, a total of 313 teams and 2,510 individuals participated in the competition. Utah's team consisting of Matt Bjorge, Nathan Simpson, and Jun Zhang finished 25<sup>th</sup>.

## **CHANGES TO THE FACULTY**

Associate Professor Bruce Kleiner, whose research area is differential geometry, was hired from the University of Pennsylvania.

New Instructors for 1998 (and the year, University and specialty of their Ph.D.'s) are Karl Glasner (1998, University of Chicago, Applied Mathematics), Vincent Guirardel (1998, Universite Paul Sabatier, Geometric Group Theory), Christopher Hacon (1998, UCLA, Algebraic Geometry), Joseph Raquepas (1997, Montana State University, Mathematical Biology), and Kevin Whyte (1998, University of Chicago, Geometric Group Theory).

Benedict Gross of Harvard University will be a Visiting Professor in 1998. Professor Gross's specialty is Number Theory.

Visiting Scholars in 1998-1998 will be Koji Fujiwara, Luqin Liu, Jill Mesirov, and William Smith.

Yury Grabovsky has completed his term as an instructor but will be staying another year as a Research Associate.

Jaume Amoros, Claire Chan, Holger Kley, and Daniel Sage have finished their terms as an Instructor and will be leaving. We wish them well.

#### **PROMOTIONS**

Associate Professor Gordan Savin was promoted to Professor.

Assistant Professors Fred Adler and Jingyi Zhu were promoted to Associate Professor with tenure.

#### **FACULTY AWARDS AND ACTIVITIES**

Assistant Professor Wieslawa Niziol has been awarded a fellowship by the Alfred P. Sloan Foundation. This prestigious and highly competitive award is intended to recognize the very best young scientists in the country. Professor Niziol received her Ph.D. from Princeton in 1991 before coming to Utah in 1996; her specialty is Algebraic Geometry.

Associate Professor Davar Khoshnevisan has been awarded the Rollo Davidson Award. This award, named in honor of a Cambridge University probabilist who died in an accident in the Alps, is given annually to outstanding young research workers in probability and statistics.

Professor Hugo Rossi continues to be on leave as he serves one more year as deputy director of MSRI (Mathematics Sciences Research Institute).

The mathematical biology group has moved to the INSCC building, just east of JWB. Their tea is Mondays at 3:30 just before the seminar and all are invited.

Professor Aaron Fogelson received a Faculty Fellowship that he will use to further his research.

Ken Golden, Michael Kapovich, James Keener, Mark Lewis, Richard McLaughlin, Dragan Miličić, and Jingyi Zhu will be on leave during part or all of the coming academic year.

Adjunct Instructor Gerald Davey was awarded an ASUU Teaching Award.

The Outstanding Instructor Award, given for distinction in both teaching and research in the Mathematics Department, goes to Daniel Allcock and Knut Solna.

#### **GRADUATE STUDENT AWARDS**

The University Research Committee has awarded a Graduate Research Dissertation Fellowship for 1998-1999 to Jon Jacobsen.

The recipients of the awards for outstanding teaching by a graduate student are Liz Jones and Blake Thornton.

#### **UNDERGRADUATE AWARDS**

Presidential Scholarships

Andy L. Wakefield

Loralee Wirth

Continuing Departmental Scholarships

Neil D. Christensen

Jamie Richings  
Kree Cole-McLaughlin

Susan Catherine Christiansen Memorial  
Award  
Calvin S. Whetstone

Hurd Award  
Jessica Ann Shepherd

Biesele Award  
Elizabeth J. Beddoes

Gibson Award  
Gregory G. Peipmeyer

D. Keith Reed Memorial Award  
Courtlan Erickson

George C. Barton Award  
Cynthia R. Soderstrom

Copley Scholarship  
Ariel C. Hammon

Mathematics Faculty Scholarship  
Christian Garaycochea

Stephen E. Newman, Jr., Mathematics Alumni  
Scholarship  
Toby M. Enniss

College of Science Dean's Scholarship  
Jason E. Larson

Steffensen Cannon Scholarship  
Hilary Hutcheson

Alice T. Schafer Prize  
Jessica Ann Shepherd

Kennecott Scholarship  
Lisa Bjorndal

Women's Club Scholarship  
Lisa Bjorndal

Putnam Contest Award  
Matthew A. Bjorge

Phi Beta Kappa Membership  
Toby M. Enniss  
Jessica Ann Shepherd (last year)

Phi Kappa Phi Membership  
Tarn D. Bereskin  
Sean Sather-Wagstaff  
Brenlyn Thiriot  
Jacquelyn Williamson.

Summa Cum Laude  
Jessica Ann Shepherd

Magna Cum Laude  
Gregory G. Peipmeyer

Cum Laude  
Paul Elijah Newren

Honors Bachelor's Degree  
Chris Bessey ("Financial Derivative  
Pricing in Continuous Time")  
Ronald E. Lundeen, Jr. ("Unsettled  
Satellite: The Chaos of Hyperion")  
Jun Zhang ("Some Worthless Results in  
Mathematics Having Nothing to do  
with Real Life").

#### **WEB SITE**

Information concerning the department and its activities can be found at the web site [www.math.utah.edu](http://www.math.utah.edu)

#### **INFORMATION FROM ALUMNI**

The Department welcomes news and information from alumni. If you have any special news, please send it to us and we will try to include it in a similar newsletter next year. Address correspondence to Newsletter, Department of Mathematics, University of Utah, Salt Lake City, UT 84112.