

PRIME BITS

Department of Mathematics Newsletter
University of Colorado, Boulder, Colorado 80309-0395

Fall 2007

Volume 9, Number 1

New department chair: Eric Stade

On July 1, 2007, Professor Eric Stade began a three-year term as the department chair after serving for one semester as interim chair. Professor Stade joined the CU Boulder faculty in 1990 following a two-year postdoctoral appointment at Dartmouth. He completed his undergraduate studies and his Ph.D. in mathematics (1988) from Columbia University where his father recently retired as a Professor of English.

Stade states that his decision to pursue an academic career as a mathematician was greatly influenced by the fact that his parents are intelligent, well-educated (especially in the arts, humanities and social sciences), personable and social people. Another aspect of Eric's education took place on the upper West Side of Manhattan where he recalls that "It was tough, but not that tough. The schoolyard goons who demanded my lunch money could usually be thrown off with a basic question: 'Why?' These were some of my earliest experiences with the power of critical inquiry."

At the age of two, Stade suffered severe head trauma after being hit by a car; he spent several months in a hospital and initially was not expected to live. He jokingly comments: "Maybe that was my long slow descent into mathematical madness, and worse, chairmanship!"

Professor Stade's research is in Number Theory, Automorphic Forms and Fourier Analysis. His recent textbook, *Fourier Analysis*, was published in 2005 in the Wiley-Interscience Series in Pure and Applied Mathematics.

Following are some observations about Eric Stade's life at the University of Colorado: "The seventeen years since (1990) have been fantastically eventful, fruitful and joyous for me. I love what I do, and get along well with my colleagues (I hope they are not rolling their eyes or gaping in disbelief as they read this). Further, I am continually being inspired, rewarded, surprised, rejuvenated and enlightened by my students. Teaching at CU truly does seem like the job I was born for. But the apogee of my life here -- or anywhere -- was my marriage to Beth Cole on July 13, 1996. She is my spark, my flame, my heat and my light. She's also a fellow nerd -- she received her MA from our department in July 1995. Shortly after, she earned an MS in Civil



Eric Stade

Endowment for Teaching Excellence Awards

During the spring of 2007, a quasi endowment was established in the University of Colorado Foundation for the B. W. Jones and W. E. Briggs Teaching Excellence Award.

Each year the B. W. Jones Award is to be given to a veteran graduate teaching assistant (TA) in the Mathematics Department to recognize his/her outstanding teaching accomplishments. The W. E. Briggs award is given each year to a first-year graduate teaching assistant (TA) to recognize his/her teaching accomplishments. Please see STUDENT NEWS in this issue of Prime Bits for the names of this year's recipients of these awards.

The Burton W. Jones Teaching Excellence Award was originally established in 1984 by gifts from the Mathematics Department faculty to honor their colleague for his long and distinguished service as a member of the faculty from 1949 to 1971 and department chair from 1949 to 1963.

When the late Professor Briggs retired in 1988, gifts were made by faculty members in the Mathematics Department and

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Students, faculty, staff and family at planting of tree in memory of Alicia Golembeski. Alicia's picture is in the lower left quadrant.

Princess Kay Plum tree planted in memory of Alicia Golembeski

On April 27, 2007, students, faculty, staff and family gathered in the southeast courtyard of the Mathematics Building for the planting of a Princess Kay Plum tree (see photos) to honor and remember Alicia Golembeski as a vivacious, caring and wonderful person.

A Doctoral Candidate and Teaching Assistant in the Mathematics Department, Alicia died in a hiking accident near the Great Sand Dunes National Park on July 22, 2006. A

committee consisting of Dana Ernst (chair), Marysia Mycielski, Sooran Kang, Eitan Angel, Tim Schumacher, John Fuhrmann, Jason Boisvert and Jonas D'Andrea organized the selection and planting of the tree. They raised \$1000 from gifts by students, faculty and staff to pay for the tree and accompanying plaque. Many of Alicia's friends spoke about their memory of her and placed shovels of soil at the base of the tree.

Eric Stade named new department chair, (continued from p. 1)

Engineering, as if I needed any more evidence that she had more (practical) sense than I. In a virtual tie with my marriage, apogee-wise, were the births of our son Jack on January 17, 2001 and Nick on April 2, 2004. Jack and Nick are the apples of our lives; they are our very own personalized stress reducers and tension relievers. The two of them have been standup comics since before they could stand up. Jack, bless his heart, is also beginning to show a deep interest in mathematics. But we can still hold out hope for Nick.

"By January of this year I felt I had learned a few things about the ways of children, so I decided I was ready to chair the department. (Colleagues: lighten up, it's a *joke*. I'm just *kidding*.) I've been pleasantly surprised by the experience. It's similar to doing mathematics in that both involve intensive problem-solving. The big difference is that departmental problems, as opposed to mathematical problems, concern *people*. But people are no more intractable or intransigent than, say, the Riemann Hypothesis. And there's an awful lot of grunt work -- much more of this than I would have expected -- but it's grunt work that, often enough, can have a positive impact on things, and this can be rewarding.

"Regarding my vision for the department, I'll say that I hope and expect we will become stronger, heartier and happier, and will strive to do better at capitalizing on the things that we do well. I can't articulate this any more precisely because I am not, as far as I know, a visionary. I don't think I am especially good at producing *big ideas*. But I *do* think that I am pretty good at recognizing and acknowledging the *big ideas* of others. My plan then is to draw upon the insights and inspirations of my colleagues and to use whatever organizational and public relations skills I have to channel their *big ideas* in propitious directions. And then to make sure credit is given where it is due, minus my commission."

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Faculty News**Meet our new faculty****Markus Pflaum (topology)**

Markus Pflaum joined the Mathematics Department faculty in the fall of 2007. He grew up in Nürnberg, Germany, and after graduating from high school moved to Munich where he enrolled at Ludwig-Maximilians-University for a diploma program in physics. Realizing quite soon that his main interest was more in the theoretical and mathematical side of Physics, he decided to work on a dissertation project in mathematics about Deformation Quantization, after finishing a Physics diploma in 1992. In the academic year 1990/91 Pflaum went for a year to the University of Texas at Austin for graduate studies. He writes: "That year was very influential for me both from a professional and a personal aspect."

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Nat Thiem (algebra)

Nathaniel Thiem joined the Mathematics Department faculty after holding a post-doctoral position at Stanford University. He received a B.A. degree from Macalester College and a Ph.D. from the University of Wisconsin in Madison. His primary mathematical interests lie in Algebra and Combinatorics, especially the representation theory of groups of Lie type.

Nat Thiem (as he is known to his friends) likes most mountain sports but especially rock climbing and hiking. He states "I enjoy: the great outdoors, a good kitchen and many things in between."

Gordon Brown honored at retirement reception

A retirement reception was held in honor of Professor Gordon Brown on April 12, 2007, at the Koenig Alumni Center. Gordon was a member of the Mathematics Department faculty from 1996 to 2007. Faculty, students and staff members attending the reception are shown in the photograph, above, with a picture of Gordon in the lower left quadrant. Among other valuable services to the department and its students, Professor Brown was the coordinator for the annual William Lowell Putnam Competition for many years. His services to the university will be greatly missed.

Faculty Spotlights

(General information on all Mathematics Department faculty can be found online at: math.colorado.edu)

Jeanne Clelland presented a public lecture on the CU Boulder campus (Math 100) to a large audience of students, faculty and visitors in recognition of Math Awareness Month. The title of her lecture was "POINCARÉ WAS RIGHT: If it looks like a sphere and quacks like a sphere, then it is a sphere." The lecture was sponsored by the Mathematics Department Undergraduate Committee. In 2006 a Russian mathematician, Grigori Perelman, declined to accept a Fields medal for proving the famous Poincaré Conjecture, which had remained unsolved for more than a century. Clelland discussed the conjecture and its proof in her lecture. Professor Clelland received tenure and promotion to Associate Professor in 2006-07.

R. Kent Goodrich gave a presentation at the Boulder Café Scientifique (Red Fish restaurant) in April 2007 on his research on Wind Shear at the National Center for Atmospheric Research (NCAR). Wind Shear is a term for strong sudden down drafts of wind that have caused a number of crashes when airplanes are landing or taking off. The NCAR research has virtually eliminated crashes due to wind shear at airports where it has been implemented. Professor Marty Walter's comment was that "The talk would be of interest to those who fly out of DIA."

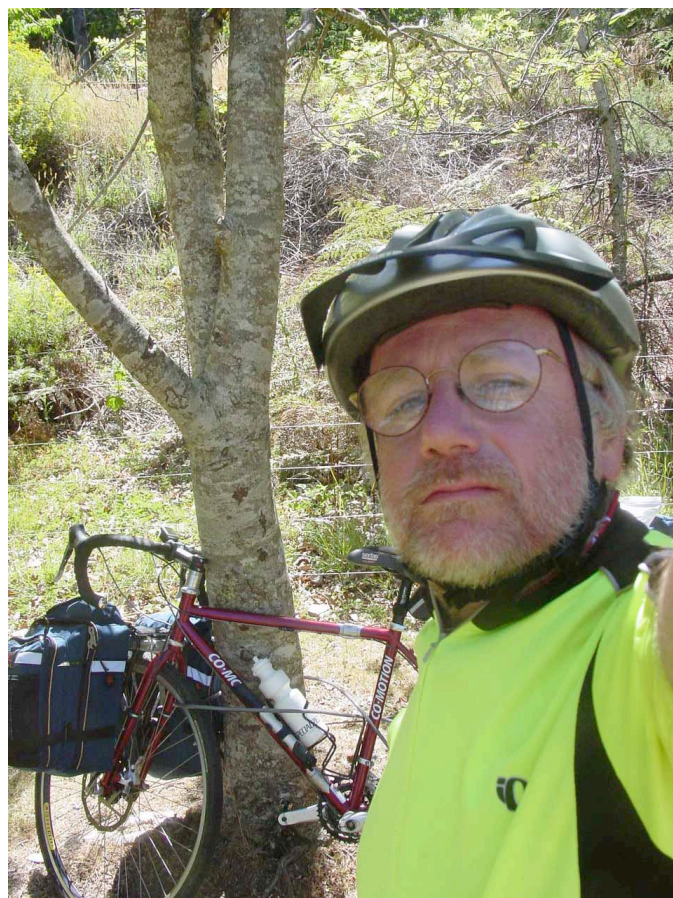
David Grant is the organizer of a regional seminar on Number Theory for CU Boulder, Colorado State University and the University of Wyoming.

Richard Green has served as the coordinator for the Kempner Colloquia (10 per semester) and the annual DeLong Lectures. In December 2006 Professor Green was a main speaker at a conference in London on The Interface of Representation Theory and Physics. He was awarded tenure at CU in August 2007.

Karl Gustafson was an invited (plenary) speaker at three international scientific meetings in 2007: (1) AAI Spring Symposium on Quantum Interaction, Stanford University (March 26-28), "Interconnections of Quantum, Machine and Human Learning." (2) 16th International Workshop on Matrices and Statistics, Windsor, Canada (June 1-3), "Operator Trigonometry of Hotelling Correlation, Frobenius Condition, Penrose Twistor." (3) Conference on Quantum Theory: Reconsiderations and Foundations 4, Vaxjo, Sweden (June 11-16), "The Born Rule."

Keith Kearnes is the organizer of the regular Logic Seminar. In June 2007 he delivered the 22nd annual Shanks Lectures at Vanderbilt University (Vanderbilt's Distinguished Lectures Series in Mathematics). Kearnes was promoted to Full

Professor in 2006-07. During the 2006 Christmas break he completed an 1800 km (1100 mile) solo bicycle tour of Tasmania.



Keith Kearnes on a solo bicycle tour of Tasmania (self-portrait)

Sergei Kuznetsov was a principal speaker at a regional conference, "Frontier Probability Days," at Colorado Springs in May 2007.

Carrie Muir, the primary undergraduate advisor for the department, has produced a flier, INFORMATION FOR MATH MAJORS, which can be obtained online at: spot.Colorado.edu/~carriem/math_advising

The flier details information needed by mathematics majors and minors and other students taking mathematics courses. In January 2007 Carrie gave two invited talks at the Joint Mathematics Meetings in New Orleans.

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Four mathematical generations: A Colorado connection

The photograph, at right, shows four generations of mathematicians who have been associated with the CU-Boulder Mathematics Department. On the left is Donald Monk who has been a professor here since 1962. Next is Ralph MacKenzie, who obtained his Ph.D. at CU in 1966. He is a retired professor at the University of California at Berkeley, and is now a Distinguished Professor at Vanderbilt University. Next is Keith Kearnes, who received his Ph.D. from Berkeley under MacKenzie and has been on the CU-Boulder faculty since 2000. On the right is Matthew Nickodemus who obtained his Ph.D. here under Kearnes. The photo was taken at Matt's thesis defense on May 17, 2007. Professors Monk and MacKenzie served as examiners along with Kearnes as thesis advisor.



Donald Monk, Ralph MacKenzie, Keith Kearnes and Matthew Nickodemus

Sir Roger Penrose gives 2007 DeLong Lectures



Mathematics Department Colloquium Chair, Professor Richard Green, at left, is pictured with Sir Roger Penrose.

Sir Roger Penrose gave the Forty-third Annual DeLong Lectures during the week January 29 -- February 1, 2007.

Titles of his lectures were:

"Conformal Space-Time Geometry, Twistor Theory and a New Cyclic Cosmology.

1. Before the Big Bang: a Novel Resolution of a Profound Cosmological Puzzle.

2. Twistor Theory: Old and New."

Sir Roger is currently the Emeritus Rouse Ball Professor of Mathematics at Oxford University.

The 2007/08 DeLong Lectures will be given by Maxim Kontsevich on February 25, 27 and 29, 2008. Kontsevich was awarded the Fields Medal in 1998 and is currently based at the Institut des Hautes Etudes Scientifique (IHES) in France.

Michael Potter presents annual Reinhardt Lecture

The 2007 Annual Reinhardt Lecture on the Philosophy of Mathematics was given by Professor Michael Potter from the University of Cambridge on March 16.

The title of his lecture was "Does Mathematics Need Replacement (and is it Even True)?"

PRIME BITS

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Student Awards and Honors

Putnam Competition Top Three

2006-2007: Andy Scacco, Jared Ahrendsen, Shawn Baland.

University of Colorado Student Employee of the Year

Lauran Gunderson, a senior mathematics major, was honored for her work at the Colorado Space Grant Consortium, sponsored by NASA to design, build, test and fly space experiments.

Burton W. Jones Teaching Excellence Award



2007: Dana Ernst

William E. Briggs Teaching Excellence Award



2007: Natalie Selinski

W. J. Thron Fellowship

2007: Dana Ernst

2007 Frances C. Stribic Scholarships



Topaz Dent
(Full award)



Sooron Kang
(Partial award)

2007 Summer Fellowships

Ilia Mishev
Brent Pohlmann
Jonas D'Andrea
Vinod Radhakrishnan
Eitan Angel

Graduate Degrees

The following students received graduate degrees between December 2006 and August 2007. Graduates are listed by NAME, degree, and (faculty advisor), with thesis titles for Ph.D.s.

December 2006

Jason Paul Boisvert, M.S.
Jonathan Lee Meadows, M.A. (R. Kent Goodrich).
Joseph Fellows Newhall, M.A. (R. Kent Goodrich).
Cayman Seacrest, M.A.
Tiffany Nicole Tassett, M.A., (Kent Goodrich)

Spring 2007

Sheila Miller, Ph.D. (Richard Laver); *Free Left-distributive Algebras*.
Noel M. Sagullo, Ph.D. (Robert Tubbs); *A Drinfeld Analogue of the Brownawell-Waldschmidt Theorem*.
Erika Frugoni, M.A. (David Grant)
Mary Hedges, M.A. (John Black)
Emily Mankin, M.A. (Kent Goodrich)
Carlos Martino, M.A.
Julia Pearson, M.S.
Michael Shefferstein, M.A. (Peter Elliott)
Victor Wong, M.A. (Jem Corcoran)

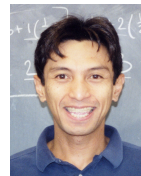
August 2007

Michael Jameel Daniel, Ph.D. (Lynne Wallings); *Modular Forms on a Function Field Over a Finite Field*.
Allen Lawrence Mann, Ph.D. (J. Donald Monk); *Independence-friendly cylindric set algebras*.
Matthew Harvey Nickodemus, Ph.D. (Keith Kearnes); *Natural dualities for finite groups with abelian Sylow subgroups*.
Sam Kelley, M.A.

Ph.D. graduates



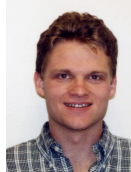
Sheila Miller



Noel Saguillo



Michael Daniel



Allen Mann



Matthew Nickodemus

Math Outreach

During 2006-07 Professor Eric Stade organized an outreach project at Escuela Bilingue Pioneer, a bilingual elementary school in Lafayette, Colo. The program brought 15 undergraduate volunteers plus one graduate (doctoral candidate) and two undergraduate (math major) facilitators into kindergarten, fourth- and fifth-grade classrooms as a resource for students working on group math projects.

The volunteers were CU students enrolled in Math 110/120 (Spirit and Uses of Mathematics), preparing to become elementary school teachers. Serving as mentors, they gained firsthand classroom experience in elementary education and also with bilingual education. In addition to the direct help during class time, the program offered weekly workshops after school for fourth and fifth graders, enabling students to explore advanced topics.

The undergraduate facilitators were Alisha Fernandez (fall) and Julie Vallero (spring). The graduate student



Outreach program facilitator, Sheila Miller, a doctoral student in mathematics, works with a student at Escuela Bilingue Pioneer elementary school, Lafayette, Colo.

facilitator, Sheila Miller, completed her Ph.D. degree in May 2007 and has now accepted a teaching position at the United States Military Academy at West Point.

The creator of the Outreach Program, Professor Stade, discovered that his experience was transforming. Since he had not been inside an elementary school since he was in elementary school, he found that: "Experiencing the learning and teaching of these young children first hand has greatly enhanced my perspective, not to mention my confidence, when it comes to teaching future elementary school teachers."

One of the volunteers said that "I was definitely apprehensive about my math skills, but found I was

actually decent in math when I began to explain it to the kids." Future elementary school teachers are often nervous about teaching math and the outreach program was an effective way for them to see what they could do.

Financial support for the project was provided by a small grant from the CU Outreach Committee.



Outreach Program Director, Professor Eric Stade with student at Escuela Bilingue Pioneer elementary school, Lafayette, Colorado.



Emily Hanenburg, a student in Math 110/120 (Spirit and Uses of Mathematics) creating a Koch snowflake out of dominoes on the patio next to the Mathematics Building.

Staff News

Donna Marie Maes, Mathematics Department Office Manager, has accepted a volunteer job as C0-Chair of the Boulder Campus Staff Council for AY 2007-08. Donna is seen in the picture below with the outgoing department chair, Lynne Walling, at the spring 2007 Supervisor Appreciation Luncheon. Donna joined the department staff in October 2004.



Photo of Professor Lynne Walling (left) and Donna Maes (right).



Berit Westby joined the office staff in the Mathematics Department in February 2007, replacing Carol Deckert as the Staff Assistant for the Graduate Program. Working with Professor Judy Packer, chair of the Mathematics Department Graduate Program, Berit assists our graduate students in fulfilling the requirements for their degrees. Before joining the Mathematics Department, she worked in the University of Colorado Central Administration Risk Management Program for ten years. Berit Westby was born in California, the daughter of Norwegian immigrants. After a few years in America the Westbys returned to Norway and Berit attended school (gymnasium) in Drammen, a city located in the south

of Norway near the Swedish border. Later on the family moved back to the US and Berit attended college at Cal. Poly. and Questa Community College in San Luis Obispo, CA. In 1984 she moved to Boulder, Colorado where she extended her education at the Boulder Vo-Tech Center in preparation for professional employment.

Barbara Wojcik (pronounced "Wochek") became a member of the department's staff team on June 1, 2007 as the Undergraduate Program Assistant, a very important position since the Mathematics Department has more than 300 mathematics majors and teaches thousands of undergraduate students each semester. Barbara is the first person a student meets when entering the department office and she is called upon to give information and assistance of all kinds (with a smile and good humor if possible). Previous work experience included fifteen years in banking (customer service and teller) and five years at the Front Range Community College in Westminster, Colorado (accounts payable, copier auxiliary, mailroom and receiving). Before coming to Colorado 21 years ago she lived in many parts of the world. Barbara and her husband, Mark, have four sons and one granddaughter. She enjoys camping, fishing and gardening (flowers and vegetables).



Sharon Dominguez retired in spring 2007 after many years of service as office assistant in the Math Module Program directed by Dr. Dee Dee Shaulis. Sharon's contributions to the Mathematics Department were recognized at the reception on April 12, 2007 for Professor Gordon Brown's and her retirement.



Faculty Spotlights, (continued from p. 4)

Stephen Preston is the organizer of a weekly seminar on Differential Equations, Geometry and Topology.

Agnes Szendrei organized a weekly seminar called "Graduate Algebra" in 2006-07, expected to continue for another year.

Bin Wang has accepted a position in the Department of Mathematics and Computer Science at Rhode Island College, 600 Mount Pleasant Avenue, Providence RI 02908, after seven years in the CU Boulder Mathematics Department. We

wish the best for Bin, his wife Jessie Liu and their son Lawrence as they make their new home in New England.

Retired Faculty

Arlan Ramsay was a co-author (with Robert S. Doran) of an article on the life and work of his 1962 Harvard Ph.D. thesis advisor: *George Mackey 1916 - 2006*, Notices of the Amer. Math. Soc. Vol. 54, No. 7 (August 2007), 824-850. A portion of the article was written by another of Mackey's students, CU Boulder **Professor Judith A. Packer**.

Alumnae/Alumni News

David P. Ambrose (M.A. Math 1964), is currently retiring after 40 years with the mathematics faculty of the National University of Lesotho in southern Africa. In addition to his work in mathematics, he has published a number of Lesotho-relevant books on such topics as paleontology, ornithology, history, water resources, environmental law and biodiversity. David and his wife, Sumitra, have produced a four-hour DVD describing their 40-year experience in Lesotho. In 2006 they were asked to report to the Royal Palace in Maseru, where there is an annual Awards Ceremony on the King's Birthday, and David was made a **Knight Commander of the Most Meritorious Order of Mohlomi**, the top honor of the kingdom. Sir David and Lady Sumitra are now in the process of moving from Romo to a house in Ladybrand. David wrote: "We look from a distance with concern at world events, and are fortunate that while Lesotho and southern Africa are afflicted with crime, poverty and the scourge of HIV/AIDS, the region has remained relatively peaceful, and we hope this will continue indefinitely." National University of Lesotho, P.O. Roma 180, LESOTHO.

William L. Briggs (B.A. Math 1971) was listed in the SIAM News (January/February 2007) as SIAM vice-president for education. A Professor of Applied Mathematics at the University of Colorado at Denver, Bill is a son of the late Professor William E. Briggs, a former member of the CU Boulder mathematics faculty and Dean of the College of Arts and Sciences. 825 7th Street, Boulder, CO 80302.
William.Briggs@cudenver.edu

Jen-Hung Chuan, Ph.D. (M.S. Applied Math 1967) is currently employed by IBM in Houston, Texas. Dr. Chuan writes: "Dear Prof. Jones, I still remember to have roast beef cookout in your back yard after your class in 1968, and (I am) always in your debt as your RA (Research Assistant in the Continued Fractions Seminar) in 1971." 16327 Locke Haven, Houston, TX 77059. jhchuan@yahoo.com

Martin Victor Day (M.A. Math 1975, Ph.D. 1979) is a Professor of Mathematics at Virginia Tech in Blacksburg, VA. He sent the following letter to **Professor Kent Goodrich** on May 18, 2007 concerning the recent tragic event that took place on the campus of Virginia Polytechnic Institute. Because of its interest to many of our alums, we print the letter here.

"Dear Professor Goodrich, We received the card signed by yourself and several others from CU expressing your support in the wake of the shootings here. Please tell everyone that we are grateful for their support. The outpouring of support from everywhere has been incredible. The student center is completely choked with all the things people have sent (quilts, flowers, huge placards, banners, ...). The university wants to archive it all, but is struggling to figure out how. The campus is recovering pretty well. The university has done everything possible to help people cope with what happened. The math department didn't lose anyone, but one of our graduating seniors survived five gunshot wounds and is still recovering in the hospital. My office

overlooks Norris Hall where the worst of the tragedy happened, so I could see the police swarming around the building, and then ambulances coming and going. It's still hard to believe it's not all a bad dream.

"Another interesting aspect is how many of us re-established contact with past friends who wrote or called to check on our safety. In particular, you may remember **Wes Mitchell** (Ph.D. Math 1979), a student of (Professor) **Larry Baggett** who was a grad student at CU the same time as me. He is doing some kind of software development out in California. I hope to see him when I am out there for a SIAM conference this summer. I also appreciate that you remember me. I will never forget your functional analysis class, especially the standard assignment to turn in the hardest 3 problems from each section of Rudin. I often tell our graduate students about that when I want to impress/intimidate them. Thanks again and best wishes, Marty Day."
day@math.vt.edu

George F. Eastabrook (M.A. Math 1968) is a Professor in the Department of Ecology and Evolution at the University of Michigan, Ann Arbor. He writes: "My masters thesis (Lattice Theory written with advisor **Professor Stan Ulam**) was published in the Journal of Theoretical Biology in 1969. On the basis of this, the University of Michigan hired me, so I dropped out of graduate school at CU to become a professor in 1970. I was interested to see Don Monk still on the faculty and Richard Roth retired. Both (were) my teachers while I was a grad student at CU. 1009 Granger Avenue, Ann Arbor, MI 48104. gfe@umich.edu

Thomas A. Fairhall (B.A. Math/Physics 1988) received a J.D. degree from John Marshall Law School in 1991 and is now a partner with the Chicago, IL law firm McDonnell Boehnen Hulbert & Berghoff LLP. He writes: "My mathematics training and degree at C.U. has been very useful in my practice of patent law. I have written many patents where mathematics was essential to the operation of the invention. Math students with an interest in applied sciences should consider patent law as a career choice. The demand for patent attorneys remains very strong. Thank you for the newsletter." 953 U. St., Port Townsend, WA 98368.
fairhall@MBHB.com

Kelly Jobman (B.A. Math 2005), formerly **Kelly Kristin Craiger**, was married to Craig Jobman on June 24, 2006 at the Sanctuary Golf Course in Sedalia, Colorado. Kelly works as an Engineering Technician for Samson Resources, Denver, Colorado. She writes: "Love the newsletter. Keep them coming! 13423 Quivas Street, Westminster, CO 80234. kjobman@samson.com

Ronald O. Williams (degree unknown) wrote "I would like to be back on the mailing list for Prime bits. Address: 7504 W. Quarto Ave., Littleton, CO 80128-4372." (*Editor's remark: Dear Ronald, Thanks for your note. In order to correct the mailing list, your letter was sent to the University of Colorado Foundation. Let us hope that they have added your name in time for the 2007 issue of Prime bits.*)

Mathematics Department Donors 2005-2007

The Mathematics Department faculty and students would like to thank all of the generous donors for their gifts to the department.

Your support enables us to bring colloquium speakers (DeLong, Kempner and Reinhardt) to the campus, to offer scholarships to our students (Leonhardy, Stribic and Thron) and to grant awards to outstanding teaching assistants

(B.W.Jones & W.E.Briggs). You also make possible the publication of the newsletter, *Prime Bits*.

You can continue your support by completing the forms, STAYING IN TOUCH and the MATHEMATICS DEPARTMENT 2007 ANNUAL FUND and returning them to the given addresses. Contributions to the Mathematics Department through the CU Foundation are tax deductible.

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Beverly K. Aarnenson
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Deborah A. Frantz
Joyce Ann Takamine
William Thoradson
Thomas Unger
Charlotte Unger

Endowments

Income from endowments gives needed support to the CU Mathematics Department in the teaching of mathematics and in the pursuit of creative research and scholarly work. If you are interested in creating an endowment or contributing to an existing one, please contact the Mathematics Department Chair, Professor Eric Stade, Mathematics Department, University of Colorado, Boulder, CO 80309-0395 or stade@euclid.colorado.edu or also University of Colorado Foundation, Arts and Sciences Development, (Attn: Kevin Vasquez), 1305 University Avenue, Boulder, CO 80302.

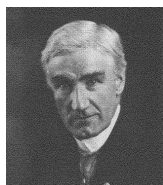
endowment income to fund the DeLong Lectures and undergraduate prizes for the Putnam competition.

Kempner Mathematics Colloquium



Aubrey Kempner and Burton W. Jones in Kempner's home, 1952.

Ira DeLong Lectures & Putnam Prizes



Professor Ira M. DeLong began teaching mathematics at the university in 1888. When he retired in 1925 the department consisted of the newly hired Aubrey Kempner and three other members. After DeLong's death in 1942, his bequest of \$25,000 to the department accumulated

interest until 1963, when the faculty decided to use the

The Kempner Colloquium was initiated by the faculty in 1963 in honor of Professor Aubrey J. Kempner who served as head of the Mathematics Department from 1925 until his retirement in 1949. Professor Kempner gave the inaugural

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Endowments, (Continued from p. 10)

lecture, speaking on "Reminiscences of the University of Goettingen" where he received a Ph.D. degree under Edmund Landau in 1911. Kempner continued to take an active interest in the department until his death in 1973. The Kempner Colloquium Endowment (currently \$50,000) was established in 1995 by gifts from faculty and alumni, including a major gift of \$25,000 from Dr. William J. LeVeque (B.A. 1944). LeVeque wanted to perpetuate the memory of the CU professor who had greatly influenced his life and career. The weekly Kempner Colloquium on topics of broad mathematical interest is essential to maintain a vibrant learning environment for faculty, students and visitors.

B.W. Jones and W.E. Briggs Teaching Excellence Awards, (...Continued from page 1)

other faculty in the College of Arts and Sciences for a memorial in recognition of Brigg's distinguished service as a mathematics faculty member (1955-1988) and Dean of the College of Arts and Sciences (1963-1980). Since Briggs and Jones had been close friends (Jones being the Ph.D. thesis advisor of Briggs) and since both men greatly valued excellence in teaching, it was felt appropriate to combine the funds left for these memorials and make two awards. Selections for the awards is made by the Mathematics Department faculty.

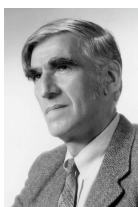


William E. Briggs



Burton W. Jones

W.J. Thron Mathematics Fellowship



In 1999 Professor Emeritus Wolfgang Joseph Thron made a gift of \$216,000 to the University of Colorado to establish an endowment of the W. J. Thron Mathematics Fellowship awarded each year to an outstanding graduate student in the Mathematics Department. With this gift Thron expressed his faith in and devotion to the University of Colorado - its faculty and its students. Professor Thron was a member of the mathematics faculty from 1954 until he retired in 1985. He served as the department chair from 1972 to 1974 and was the thesis advisor for 21 Ph.D. students. In 1980 Thron was elected to the Royal Norwegian Society for Sciences and Letters (Det Kongelige Norske Videnskapers Selskap) for his outstanding creative research in mathematics and for his great inspiration for others to do creative work. He was awarded the University of Colorado Medal for outstanding

contributions to the university and for his distinguished career as a scholar, teacher and research mathematician.

William Reinhardt Memorial Lectures

An endowment for the annual William N. Reinhardt Memorial Lecture was established at the University of Colorado Foundation in 2001 by family, colleagues and friends. Professor Reinhardt was a member of the Mathematics Department from 1967 until his untimely death on June 22, 1998 at the age of 59. Reinhardt was interested in the foundations and philosophy of mathematics and he sometimes taught courses in the Philosophy Department.

Frances C. Stribic Scholarships



Frances Stribic was a member of the mathematics faculty from 1926 until she retired in 1965. Finding a need for someone in the department to teach statistics, she prepared herself in that subject and not only taught it for a number of years but also did research

applications jointly with psychology Professor Dorothy (Happy) Martin. Professor Stribic was an outstanding teacher, well respected by her students and colleagues. The Stribic Scholarship, established in 1990 by her friend and colleague, Dorothy Martin, is awarded each year to female graduate students chosen by the faculty for excellence in mathematical scholarship.

Adele Leonhardy Memorial Scholarship

The Adele V. Leonhardy Memorial Scholarship endowment was established by a gift from the estate of Adele Leonhardy (B.A. 1924). Scholarships are awarded to outstanding graduate students or upper-division A&S undergraduate students majoring in mathematics. Recipients must demonstrate excellence in their studies and must be preparing to teach mathematics. Adele Leonhardy was born in Carbondale, Colorado in 1900 and grew up at Fruita near Grand Junction. While attending the University of Colorado from 1917 until 1924, she taught elementary school in Boulder in order to pay for her college education. After graduate work at the Universities of Chicago and Missouri, she taught mathematics at Stephens College until her retirement in 1967. Professor Leonhardy knew the difficulty of working one's way through college. She dedicated her life to the teaching profession. Her gift to the University of Colorado will enable students from future generations to become teachers of mathematics.



University of Colorado at Boulder

Department of Mathematics

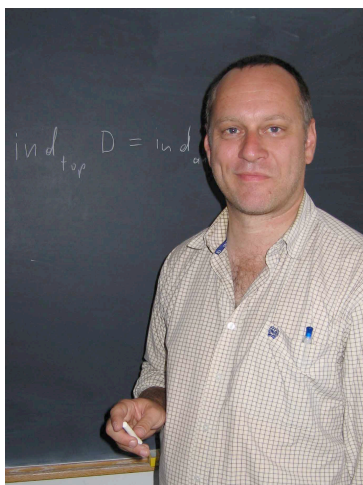
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New Faculty, (continued from p. 3)

one hand I had the chance to attend two fascinating courses: one about Quantum Field Theory by nobel laureate S. Weinberg, and the other one about Algebraic Topology by G. Hamrick. Their style of teaching was quite different to what I was used to before, and very research oriented. On the other hand I was so impressed by the American way of life, that probably in that year the wish to immigrate to the United States at some point in my life was born.

"My next academic station was Humboldt University, Berlin, where I worked as a postdoc on the Topology, Geometry and Analysis of stratified spaces. After a research position in Marseille, France for half a year I moved to Frankfurt, Germany, where I had accepted a position comparable to an Assistant Professor, and then received tenure in April 2004. My research work and interests are concentrated essentially around two main fields: the Topology



and Geometry of singular spaces (including from a point of view of Noncommutative Geometry) and, on the other hand, the interplay between deformation quantization and index theory. I also have an interest in applications of mathematics to physics, in particular quantization theory.

"Since 1996 I am married to my wife Stephanie. We have two children, Konstantin Jeremias (7) and Franziska Miriam (4). Both are very excited to live in Colorado. Konstantin looks forward to school at Bear Creek Elementary. Concerning sports, I am a passionate bicycle rider. I also like to hike in the mountains, but did not really have chances for that in the past years. So I very much look

forward to start that hobby again in Boulder, and go for hikes with family and friends. About two years ago I started with indoor climbing, and plan to continue that here."