



An Interview with a Graduate Student from Finland

Ph.D. student **Antti Solonen** is visiting the University of Montana this academic year with a prestigious Fulbright Scholarship. He was interviewed by Associate Professor **John Bardsley**.

What town are you from in Finland? I was born in 1982 in a small town called Savonlinna (25,000 people). It is about 400 kilometers northeast from Helsinki. My parents live by Saimaa Lake and we also have a small summer cottage in a village called Oravi, next to Linnansaari National Park. That is where I like to spend my summers.

Before coming to Missoula I lived and studied in Helsinki. I have to say that I prefer small towns—even Helsinki feels a bit too busy for me. Missoula is just about the right size.



Antti Solonen in traditional Finish garb

What are your degrees in from Lappeenranta University of Technology? I got a Master of Science in Technology degree in Computer Science in 2006. My special focus was mathematical methods. I was working throughout my studies in the laboratory of applied mathematics, first as a TA and from 2005 as a research assistant in the inverse problems

group. I always had some passion for math and science but I never thought of becoming a researcher until 2005

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And quite a bit more!

AISES Conference 2008: A Universe of Opportunities

by Nicole Jefferson

It was inspiring to see so many American Indians gathered together for the 2008 AISES (American Indian Science and Engineering Society) conference in Anaheim, California.. The feeling of being in the same room as 1625 other attendees was amazing! The majority of the attendees were at the conference for future careers in science, mathematics and engineering, or to explore possible graduate schools in the same areas.

Olympic Gold Medalist Billy Mills set the mood for the conference as the Opening Ceremony keynote speaker. He encouraged us to embrace our hardships on our road to success, because they make us stronger people. His speech complimented the theme of the conference which was "A Universe of Opportunities." Billy Mills was not the only famous American Indian at the conference! We were also able to meet with John Herrington at the career fair, the first American Indian in outer space! Of course John Herrington was not the only person

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Nicole Jefferson with John Herrington, the first American Indian astronaut!

Graduate Student Does Research in New Zealand

by Erin Landguth

Last summer, I was awarded a competitive fellowship in the *NSF East Asia and Pacific Summer Institute* in New Zealand. The institute's goals are to introduce U.S. graduate students to East Asia and Pacific science and engineering in a research setting, and to help students initiate scientific relationships that will enable future collaboration with foreign counterparts.

My research project was in the development of a mathematical model to describe a host-vector system with a relapsing class of host individuals. The research findings help to better understand, and make predictions about tick-borne relapsing fever, a disease that is prevalent between red squirrels and soft-bodied ticks on Wildhorse Island in Flathead Lake, Montana. This research is part of a larger ongoing collaboration with my fellow trainee, Tammi Johnson, sponsored by the NSF IGERT Montana Ecology of Infectious Diseases program and the Rocky Mountain Lab in

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Notes from the Chair

This is my last column for the newsletter as I finish my 4-year term as Chair on July 1. Leonid Kalachev has agreed to take on the job and I think he will be an excellent leader for the department. I am not envious of Leonid becoming Chair in a challenging era budgetwise, but I am confident in his ability to lead us through this period.

I am thankful to many people for making the job of Chair easier over the last 4 years: Nikolaus Vonessen, Associate Chair for the Undergraduate Program, for being so organized and prompt (in contrast to me); Jenny McNulty, former Associate Chair for the Graduate Program, who initiated several changes that have made our graduate program bigger and stronger; Jim Hirstein, former Chair and current Associate Chair of the Graduate Program whose historical knowledge of many issues was invaluable; and Michelle Johnsen, office manager and administrative assistant extraordinaire, without whom no Chair could get anything done. I am also grateful

to an outstanding faculty, excellent students, a great staff, and supportive alumni and other friends of the department. I want to particularly thank our many generous donors. Your gifts made it possible for us to support student travel, like Nicole Jefferson's trip to the AISES conference (page 1), as well as to supplement our scholarship funds in a time when endowment income is down. Thank you!

On to some news. We had excellent weather and an excellent turnout for our spring barbeque in Bonner Park on May 1. Instead of our traditional student-faculty softball game, we played "Finnish softball" under the guidance of Antti Solonen, our Fulbright visitor from Finland. Finnish baseball ("pesapallo") is a very popular game in Finland with only mild similarities to American baseball

(Google "pesapallo"). We had a great time and I want to thank Antti for his willingness to instruct us with patience and good humor, as it was not his idea for this game.

We had a large class of graduates this spring (26 BA/BS, 10 MA, and 2 PhD) and a wonderful departmental graduation ceremony, complete with a showing of BA recipient Laura Williams' short film "The Math Geek". The two PhD's were Rebekah Yates and Joran Elias. Rebekah completed her thesis in functional analysis under Thomas Tonev. She got her BA from Wheaton College in Illinois, but was encouraged to come here by Dave Perkins, PhD '05, who was teaching at Houghton College in upstate New York when Rebekah spent a semester there as a junior. Coincidentally, Rebekah will be

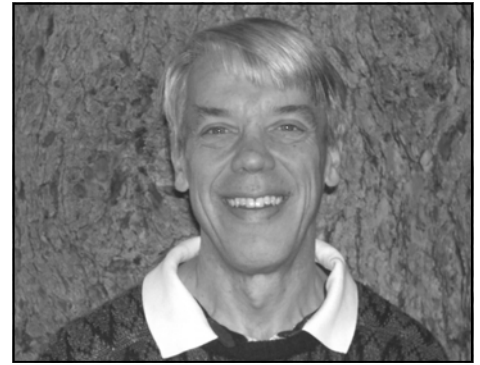


PhD Graduates:
Joran Elias and Rebekah Yates

entering a tenure-track position at Houghton in the fall. Thank you, Dave, for encouraging such a fine student to come our way! Joran Elias completed his thesis in statistical learning under

Brian Steele. Joran did his undergraduate work at Dartmouth College. He completed his Master's degree here in algebra, but then decided to switch to statistics. He was admitted in fall 2006 to the first class of trainees in the Montana Ecology of Infectious Diseases NSF-funded interdisciplinary program (Fall 2006 newsletter). His thesis on tree ensemble prediction methods included a chapter applying such methods to the spatial distribution of malaria vectors in Africa. Joran will be following his wife Audrey to Port Angeles, Washington where she has landed a job as a physical therapist. Good luck to Rebekah and Joran and all of our graduates. Have a good summer and keep in touch!

Dave Patterson



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My Summer Adventure

by *Marylesa Wilde*

This time last year I was still waiting to hear back from several places about summer employment. With the end of the school year fast approaching and no official job offer I began to wonder how I would survive. Just when I thought all hope was lost, the most amazing, once in a lifetime offer came out of nowhere. There was an EPSCoR grant written by Dr. John Bardsley of UM Mathematics and Dr. Mark Lorang of UM Physical Ecology for an entering PhD student to be funded for research.

Thankfully, somehow my name came up and I was offered to start interdisciplinary research between math and ecology, with the opportunity to be funded by Dr. Lorang through the summer involving hands-on learning. As mathematicians, generally our hands-on learning involves a pencil, paper and calculator so I was intrigued by the prospect to combine my love for outdoors and mathematics.

Our research explores various computer algorithms based on statistics to classify pixels in aerial images, which is great since my focus is statistics and I thoroughly enjoy working with computer code.

My summer began with a two week course on stream ecology through the UM Flathead Lake Biology Station to familiarize myself with terms and theory that would benefit my research. I then gained some hands-on experience



Surrounded by cattails, Marylesa Wilde is using GPS to collect "ground truth data" at the North Shore of Flathead Lake.

directly related to our research that put me in the field collecting ground truth data. Literally, in the field (see image). I was sent to the North Shore of Flathead Lake with a heavy GPS backpack to walk through fields and under willow trees, trudge through waist-deep mud and march through dead cattail marshes completely infested with mosquitoes. Although I enjoyed the days in the fresh air and hot sun, between allergy attacks and mosquito bites I quickly developed an appreciation for those who regularly work in the field.

Before I could call my summer complete, I still had one part of the data left to collect – the imagery! Dr. Rick Hauer from the FLBS flew me above the North Shore as I directed the computers for the hyperspec and high resolution digital cameras.

I think my decision to be a mathematician was a perfect choice. Not only do I love math, but I now have a way to incorporate it with the outdoors I love. I could not have asked for a greater summer experience and now I can say I was a part of the research process from

the ground up to the sky!

Marylesa Wilde is a Ph.D. student in Statistics. She won an Outstanding Presentation Award at the University of Montana Graduate Student and Faculty Research Conference in April 2009. Her research was partially funded by MT NSF EPSCoR grant EPS-0701906.

Undergraduate Research: An Eye Opening Experience

by *Jade Roskam*

I was nearing the completion of my mathematics and education requirements in the spring of 2008 when a wonderful opportunity presented itself. Sergio Morales, a post-doctoral researcher in Biological Sciences, was looking for an upper division math undergraduate to assist him as a statistician in a research project. I had never considered research before but knew I enjoyed statistics and, at worst, this would be a great addition to my CV. The project seemed well suited for the Montana Integrative Learning Experience for Students (MILES) program which funds undergraduate research that integrates multiple disciplines (for example, biology and mathematics). That the MILES program accepted my application literally changed my life.

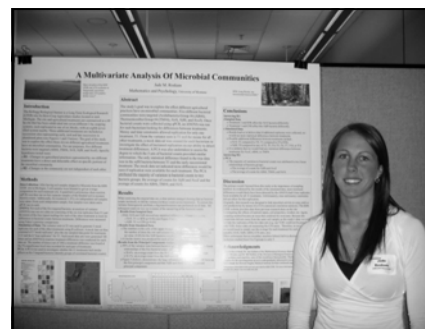
From early summer through mid fall 2008, I worked with Sergio and was mentored by Dr. Jon Graham on a project designed to study the effects of 11 different agricultural practices on bacterial populations in the soil. Dr. Morales collected soil samples, ran a quantitative polymerase chain reaction on the samples to measure the population counts of the 5 bacteria we studied, and then sent the data to me for interpretation. With Jon's help, I learned how to run and interpret a standard analysis of variance (ANOVA) and a principal components analysis (PCA). An ANOVA was used on the data set for each bacterium to detect differences between the eleven agricultural treatments.

The PCA was undertaken to better understand which bacteria responded similarly across treatments.

In addition to learning these two methods of data analysis, I was given the opportunity to gain familiarity with both the R and SPSS programming languages. Due to time and money constraints, replicate data

were available only for one treatment per bacteria. Using the variance seen in the replicate data, a mock data set was created using R to simulate having replicates for all eleven treatments. This helped us hypothesize where we might see differences in bacteria counts had replicate data been available for all treatments.

Unfortunately, few differences were seen in the data collected by Dr. Morales. However, this had little impact on my impression of the experience.



Jade Roskam with the poster she used to present her research at the University of Montana Conference for Undergraduate Research in April 2009

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Article: "An Interview" Continued from page 1

when I worked in a particle physics laboratory in Switzerland. After that encouraging experience, I contacted [many time UM visitor] Heikki Haario, and soon I found myself doing interesting stuff in a really nice group.

What are your impressions of Missoula and Montana? I visited Missoula for the first time in 2007 with Heikki (there was a small summer class about sampling). I noticed immediately that Missoula is my kind of place – kind of small and laid-back but also youthful, sparkling and a bit hippie even. Not to mention all the great outdoor stuff accessible from your back yard: hiking, biking, rafting, tubing, skiing, fishing, hot springs...

The biggest difference compared to Finland, and the reason behind the one and only culture shock I've had here, would definitely be the people. During my year here I have talked maybe twice as much as during a normal year back home. People in Missoula seem to be very friendly and it is really hard to avoid small talk with someone you barely know. I got so many invitations for a dinner, even for a family holiday like Thanksgiving or Christmas. I was taught powder skiing by a total stranger at Snowbowl. There are so many examples. After the first week I felt "socially exhausted". Now I'm used to it; the problem will be getting back to the Finnish silence. "Shut up for a while, Antti!"

What are your impressions of the United States? What do you like/dislike about it? Wow, this is tough. I like the friendliness of the people; you feel really welcome here as a foreigner. People show a lot of interest in your country and culture (and surprisingly many people actually know something about Finland). You hear these statements in Europe that "Americans only care about their own things". This myth is definitely busted.

There would be many things I could complain about how things work here (it wasn't easy for me to pay tuition, for example), but for a visitor it is crucial to keep your eye on the bright side.

Has your year abroad been life-changing? Yes, in many ways, at least socially and professionally. And I've lost 20 pounds.

What has been difficult? Being so far away from family, and especially my fiancé Maiju, has been hard. Luckily she had the chance to visit, and we are going to travel to Alaska together before I go back home.

What do you think about the UM Math Department? What do you like/dislike about math grad school here compared to Finland? Studying in general seems to be somewhat different compared to Finland. Back home they don't care about attendance, in general there is no compulsory homework that you have to return, the student has more freedom. I like to be able to concentrate on the things I find important but on the other hand the system here forces everyone to go through the whole material—two extremes in a sense. Studying here requires more work than back home. I am statistically pretty confident about this after talking to many foreigners about their classes.

The math department seems to have a lot of collaboration going on with other departments. The IGERT program is a great example of the way applied math should work. Once you have the math, the computational skills and you know something about an application, you are pretty well off. The class in the fall [Math 475, Computational, Dynamical, and

Statistical Modeling] was an excellent example of this; I enjoyed it a lot. We do not have such an inter-disciplinary course back home.

What do you think about the University of Montana? I like having a real campus with all the services and facilities; we do not have those in Finland. I will miss hanging out at the campus cafeterias. When it comes to administration, everything has worked out fine.

From the other perspective, it's been great to have you here. Your presence will certainly be missed, as I'm sure it is back in Finland. It has been a great year, both professionally and socially. I will miss Missoula for sure and all the great people I have met here. I feel like I have made enough progress with my work to feel good about it. This was the first time I had time to concentrate on my own stuff, no teaching and just a few classes.

Article: "Graduate Student" - Continued from page 1

Hamilton, MT (which belongs to the National Institute of Allergy and Infectious Diseases).

My advisor in the Mathematics Department at the University of Montana, Dr. Emily Stone, connected me with my host supervisor, Dr. Vivien Kirk, a senior lecturer in the Mathematics Department at the University of Auckland. She is a leading researcher in bifurcation analysis of nonlinear ordinary differential equations. Dr. Kirk is also part of a world class research group in mathematical biology directed by Professor James Sneyd. Through this research group (and also a week-long visit by Dr. Stone), I was able to make significant progress in my research. For example, I learned the software program called AUTO from Dr. Kirk, which I was able to apply to our model to find situations in which the disease is free of or endemic in the system.

But for the real experience: I lived on Waiheke Island, a 40-minute commute by ferry to the city of Auckland. And for someone who has been "land-locked" their entire life, a ferry commute with dolphins, Orcas, and Little Blue Penguins to a sub-tropical island with beaches, vineyards, and endless coastal hikes – never got old. And never mind the southern hemisphere's winter, I managed to tramp quite a bit of the South Island as well, over fjordlands, glaciers, and by the Abel Tasman Sea. But the best part and what I miss the most about New Zealand are their flat whites (coffee, for the non-Kiwi speakers)!

Erin Landguth is a Ph.D. student and a research assistant in the Department of Mathematical Sciences and the Montana Ecology of Infectious Diseases Program. She plans to graduate in Fall 2009



Erin on her daily ferry commute to Waiheke Island, with Auckland City in the background.

ALUMNI NEWS

Jenn Berg (B.A. 1999) completed her Ph.D. in Mathematics at the University of California at Berkeley in May 2008, with a thesis titled "On the center of the Lie superalgebra $q(n)^{(2)}$ ". She is now a tenure-track assistant professor at Fitchburg State College in Fitchburg, MA. Congratulations on both achievements!

Susie (Bickell) Cole (BA 1965) wrote to us about her interesting life: "After graduating, I married George Cole, a 1965 history and political science graduate from U of M. We went into the Peace Corps where we taught school in Malaysia. I was a secondary math and physics teacher. We have lived in Missoula, Helena, Spokane, Seattle, San Diego and Washington DC. We have two grown children. Our daughter is a social worker in the state of Washington, and our son is a classics professor at the University of Minnesota. After a career in computers and finance, I retired in 1998 from the San Diego County Water Authority as director of administrative services. We moved to Bozeman in 2000 for George's job with Montana PBS. Currently, I am the volunteer chair of Gallatin Valley Community Radio. We have received a construction permit from the FCC to bring a new 1000 watt community radio station to Bozeman.

Back in the early 1970s, George and I did the same thing in Spokane when we started KPBX public radio station in Spokane. I also do construction work for Habitat for Humanity every Friday. I think I could write a story about what you do with a BA in mathematics, because it has opened interesting doors for me. I did get a master in public administration from San Diego State University at the same time our kids were in undergraduate school." Thanks for keeping in touch! You can reach Susie at scole100@msn.com.

We are sad to report that **Mary Brooke Billings Leonard** passed away on February 18, 2009. Starting in 1956, Brooke studied mathematics and physics at UM (then Montana State University) for several years. After marrying, she left Missoula and finished her bachelor's degree in mathematics at Florida State University in 1960. You can read more about her life in the obituary published in the Missoulian (http://www.missoulian.com/articles/2009/03/08/obits/01sun/01_march08.txt).

*Please send in your news; we're always glad to hear from you, and **your classmates and professors would love to read about you** in this column. Upon request, we are happy to include a phone number or email address, to make it easier for former class mates to get back in touch with you.*

N.V.



2009 Spring Scholarship and Award Winners

Joseph Hashisaki Memorial Scholarship

Katharine Banner

Mac Johnson Family Scholarships

Tamatha Abell Stephanie Bell
Nicole Crouch Faith Morrison

CAS General Scholarship

Funded by a gift from Evelyn Osborn

Elijah Bodish

Anderson Mathematics Scholarship

Hannah Stanton

N.J. Lennes Awards

Trenin Bayless (1st)

Elijah Bodish (2nd)

Alissa Wersal (2nd)

Daniel Barthelmeh (Honorable Mention)

Josh Cochran (Honorable Mention)

Undergraduate Teaching Scholars

Tamatha Abell

Katharine Banner

Undergraduate Tutorial Scholar

Stephanie Bell

Faith Morrison

Hannah Stanton

Graduate Student

Distinguished Teaching Awards

John Hossler

Matt Roscoe

Graduate Student Summer Research Awards

Michael Gilliam John Goldes

Nicolas Haverhals Kevin Renna

Bertha Morton Scholarship

John Goldes

John A. Peterson Award for Math Education

Rachel Saltzstein

President's Senior Recognition Awards

Douglas Holstein (Pure Mathematics)

Nicholas Kallem (Statistics)

Nathan McLaughlin (Mathematics)

Nicholas Paterno (Applied Mathematics)

Lauren Ramundo (C&O)

Rachel Saltzstein (Mathematics Education)

Pi Mu Epsilon New Members

Joshua Campbell

Jarden Carlat

Alex Helland

Stephen Johnson

Nels Knutson

Blake Miller

Faith Morrison

Ronald Powell, Jr.

Sharee Russell



Prior to going through the MILES program, I was planning on becoming a high school math teacher after graduation. Now I am hoping to attend a graduate program in Statistics and will be pursuing a Doctoral degree. Not that there is anything wrong with teaching at the high school level, but my eyes have been opened to a new and exciting world, that of research and statistics.

A final word of advice for undergraduates: now is the time to get involved in research, especially if you are planning on attending graduate school. UM offers a variety of undergraduate research opportunities. Visit the MILES website (<http://miles.dbs.umt.edu/index.php>). Talk to your professors if you have a topic in mind. You will not regret the experience. You never know. It may change your graduation plans.

Jade Roskam will graduate in December 2009 with BA degrees in both mathematics and psychology.

we talked to at the career fair. We were able to talk to representatives from big companies and corporations like Lockheed Martin, IBM, Johnson and Johnson, Chevron, 3M, U.S. Army Corp of Engineers and NASA. We also were able to talk to representatives from colleges and universities around the nation about graduate school and the graduate opportunities they have to offer. Each college, university, company and corporation offered numerous summer intern opportunities.

Along with the career fair we were able to attend numerous workshops dealing with leadership roles as an American Indian, managing graduate school, and seminars educating us about water rights and our rights over other natural resources on our land. We were also able to view poster presentations put together by undergraduate and graduate students.

The conference ended with an awards banquet and a Halloween Dance. The atmosphere of the entire conference made me feel bulletproof. I came back to Missoula with an attitude that I could accomplish anything I put my mind to. By knowing that there are over 1600 other American Indians in this nation looking for success in the areas of science, mathematics and engineering I am encouraged to work harder for my success.

Nicole Jefferson is a junior from Hardin, MT; she is majoring in Mathematics Education.

Degree Recipients of 2008-2009

BA in Mathematical Sciences

Christina D. Anderson
Jessica Benedict
Brian A. Fish
Cory H. Fuchs
Hamza Haffari
Douglas W. Holstein
Nicholas W. Kallem

Nels Christian Knutson
Jennifer E. Luebke
Nathan McLaughlin
Michael T. Michalak
Bradly K. Pate
Nicholas J. Paterno
David F. Quiroga

Lindsey N. Ramsey
Lauren M. Ramundo
Alexander J. Rodriguez
Rachel E. Saltzstein
Andrew B. Thornsley
Laura R. Williams

BS in Mathematical/Computer Sciences

Songee Chanda
Steven S. Garcia

Kaiser Leib
Byrne Manley

N. Eldon Umphrey

MA in Mathematical Sciences

Hernando Bermudez
Tien Y. Chih
Matthew C. Creek
Joshua L. Krone
James McKee
Erica K. Miller
Joseph D. Oldenburg
Kevin M. Renna
Michael D. Severino
Marylesa M. Wilde

On Scheduling Tournaments with Home & Away Constraints
The Brauer Group of a Field: An Introduction
Oscillatory Integrals in \mathbb{R}^n
Optimization of Real Time PCR
What do we do with Failure
Diffusion Models to Maximize Species Persistence
Hyperplane Arrangement & Matroid Invariants
The Airy Integral & The Method of Steepest Descent
Combinatorial Approaches to Sonority Analysis
Statistically Based Methods for Supervised Classification of Remote Sensing Data

Advisor

Mark Kayll
Nikolaus Vonessen
Jennifer Halfpap
Emily Stone
James Hirstein
Leonid Kalachev
Jenny McNulty
Jennifer Halfpap
George McRae
John Bardsley

PhD in Mathematical Sciences

Joran M. Elias
Rebekah B. Yates

Randomness in Tree Ensemble Methods
Norm-preserving criteria for uniform algebra isomorphisms

Advisor

Brian Steele
Thomas Tonev

Department News

Associate Professor **John Bardsley** organized the mini-symposium *Variational Problems in Image Processing: Theory and Computation* at the annual meeting of SIAM, the Society for Industrial and Applied Mathematics, last summer. This summer, he will organize another one on *Statistically Motivated Methods for Inverse Problems*. In addition, John took over from Professor **Jon Graham** as the new co-director from the math department for the large M-EID IGERT grant which supports graduate research in various departments (see Jon's article in the Fall 2006 newsletter, available at <http://www.umt.edu.Newsltr/>).

The pioneering mathematical work of **N. J. Lennes** (1874-1951), who chaired UM's math department from 1913 until 1944, was prominently featured in the April issue of the Notices of the American Mathematical Society. The interesting article, *Connected Sets and the AMS, 1901-1921*, by David E. Zitarelli is available at <http://www.ams.org/notices/200904>.

On February 5, the Missoulian published a long article about a quarter-century of cross-country skiing by Professor Emeritus **Bill Myers** and his wife **Vera**. The article includes several pictures. A memorable quote: "We used to think nothing of skiing 12 miles up a road and then back in a day. We were young then, in our 60s," said Vera. And they are still going strong at it, now in their eighties! You can read the article (and watch a short video) at <http://www.missoulian.com/articles/200902/06/outdoors/out96.txt>.

Assistant Professor **Ke Norman** is organizing a 2-day workshop for junior female faculty members in mathematics and science education at regional colleges and universities. In addition to securing funding for the meeting, she arranged for proceedings to be published by *The Montana Math Enthusiast*.

Sharon O'Hare (M.A. 2007) was appointed by the provost to be the interim Executive Director of the new Office for Student Success, which is charged with the oversight and coordination of undergraduate advising services, all tutoring programs, and targeted first year curricula and programs. She is still in charge of the

Math Learning Centers and the Math PiLOT Program (about which we reported in the Spring 2008 newsletter). Good luck in your new job!

Associate Professor **Bharath Sriraman** was appointed managing co-editor of the new book series *Advances in Mathematics Education*, published by Springer Verlag, the prestigious publisher of the yellow textbooks on advanced topics in the mathematical sciences. In addition, Bharath is also co-editor of the first volume in the series, a 400-page tome called *Theories of Mathematics Education*.

Bharath also received a Sabbatical Award for next fall, and a Faculty Exchange Award for next spring. He will spend the fall with projects at universities in Tehran (Iran), Mumbai (India), Kristiansand (Norway) and Seoul (South Korea). In the spring, his time will be divided between the Universities of Tromso (Norway), Aarhus (Denmark) and Cyprus.

Professor **Thomas Tonev** co-organized the *Special Session on Banach Algebras, Topological Algebras and Harmonic Analysis* at the sectional meeting of the American Mathematical Society in San Francisco, April 25-26. Among the invited speakers were former students **Scott Lambert** (Ph.D. 2008) and **Aaron Luttmann** (Ph.D. 2006), and current Ph.D. student **Rebekah Yates**, who is graduating this academic year.

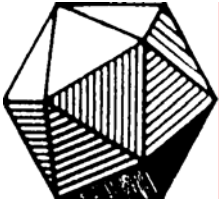
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Long Sleeve \$16
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and a photo, see the
back cover of the Fall
2008 newsletter
([www.umt.edu/math/
Newsltr/fall08.pdf](http://www.umt.edu/math/Newsltr/fall08.pdf)).

Honor Roll of Donors

April 2008 to March 2009

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Col. Heath Bottomly
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Denny Culbertson
Dr. Borries Demeler
James & Marjorie Elander
William & Vicki Fitzgerald
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Dr. Francis Hannick
Mary Hashisaki
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R. Lynn Turnquist
Nikolaus Vonessen &
Regina Souza
Richard & Carla Welter
Michelle Wieler
Keith & Martha Yale



Math Club Corner

<http://www.math.umt.edu/mathclub/>

By *Nikolaus Vonessen*

The Math Club just concluded an eventful academic year. At our first meeting last August, we had a lot of fun when math major **Laura Williams** organized a reading from the script of one of her funny short films. At the Math Film Festival this April, we were able to show four of them: *The Math Geek*, *When Harry Met Math*, *The Vampire Curse of the Math Zombies* and *Dakota Woods and the Theorem of Gloom*. Wouldn't you have loved to see some of them? In case you are not sure, here is the teaser for *The Vampire Curse of the Math Zombies*:

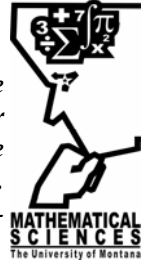
"The kids can stay – they won't be frightened by these zombies! Professor Prime (**Jade Roskam**) is the mysterious substitute for Professor **George McRae**, who disappeared under strange circumstances (but don't worry, he is sitting somewhere in the audience near you). And soon the math zombies are on the prowl. One of the best parts of this film is the long credits with some hilarious scenes. Don't leave before you find out why Anita (played by **Stephanie Bell**) dreams of having three girls, one boy, four twins, and – you guessed it – one nanny. Or three boys, one girl, whatever."

I hope you won't spend too many sleepless nights before you solve this riddle. You can find the complete Math Film Festival schedule at our website, <http://www.math.umt.edu/mathclub/>. By the way, if you'd like to attend the next one, it will be on April 13, 2010.

Other events included our Gambling Day in October, and Pi Day in March, which we had to celebrate a day early on Friday the 13th.

On a more serious note, we had, for the first time (at least in recent years) student presentations to the Math Club both in the fall and spring. In the fall, **Christina Anderson** talked on *The Geometry of Quilts*, and **Nicholas Paterno** on *Nonlinear Dynamics: an Application to Biology*. And recently we had presentations by **Joshua Campbell** (*Not Your Mother's Matrices*), **Nels Knutson** (*The Physics of Mammography*) and **David Quiroga** (*LinTT, A new Graphical User Interface for Linear Optimization using Tucker Tableaux*). It was great to watch these impressive performances!

The Math Club is always looking for outside speakers, especially alums, to talk about their professional lives, and how they use mathematics or statistics in their careers. Please let me know if you can help out! (406-243-6222, nikolaus.vonessen@umontana.edu)



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