mputational Times

Newsletter for the Wittenberg University Department of Mathematics and Computer Science

http://www.wittenberg.edu/mathematics/ http://www.wittenberg.edu/computer_science/

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VIEW FROM THE DEPARTMENT CHAIR

RINGFIELD,

The biggest news in the department this semester is the addition of a faculty member – our new computer scientist, Kyle Burke, who replaced Nancy Saks after her retirement last year. Kyle's awesome infusion of energy is a huge bonus for the department. In addition to teaching classes and mentoring students, Kyle has already stepped up to offer a departmental colloquium – the first in a series organized by MAAWUC, with 24 people in attendance. Look for more of these MAAWUC colloquia next semester, and read more about Kyle in this issue's feature article.

A huge note of congratulations goes out to our computer science faculty on their new \$190,000 grant from the National Science Foundation! Eric Stahlberg, director of the computational science program, spearheaded the drive to secure funding to support the integration of parallel computing concepts and techniques in several courses throughout the entire computer science curriculum. The program links us with Clemson University and hooks us up with several high-tech industry partners, and is part of a larger effort to put Wittenberg's computer science department on the cutting edge of computer science and computational science education and opportunities.

There have been a couple other curricular developments this semester, too. For starters, we revised two of our department's programs to make them more flexible and accessible. In particular, we revised both the computer science minor program and the list of elective courses required for math majors seeking licensure for high school teaching. We have other curricular revisions in the works as well, but we better not reveal all until they're officially approved by the university faculty! And the university is currently considering revisions to the overall graduation requirements, which very likely will impact what math/comp/stat courses students take as well. So stay tuned for further developments on this front.

The department is also excited to start participating in the new Supplemental Instruction (SI) program next semester, in which talented upper-class math/comp majors' help in courses in which first-year students often struggle. The student SI leaders attend the class sessions, consult with the faculty instructor and then plan and lead a couple optional supplementary sessions each week to help any students in the class who would benefit. We're eager to help students succeed, so for next semester we've lined up SI leaders for MATH 131, MATH 201, and COMP 150. Look for a report next spring on our participation in this neat new program.

I hope everyone has a restful break, and we'll see you all back next semester.

Doug Andrews

IN THE SPOTLIGHT: A CONVERSATION WITH KYLE BURKE by Kathleen Snead

This fall 2009 semester marked the introduction of a new Computer Science professor to our department. Kyle Burke completed his undergraduate studies at Colby College. He was a double major in Math and Computer Science, however if you had known Kyle as a "small" freshman, at Colby, you would be very surprised by his choice of study today. You may very well have found Kyle in a Creative Writing course because it wasn't until late in his college career that he declared a Computer Science major. Kyle has since earned his Ph.D. from Boston University in combinatorial games. If you go into his office you will find multiple large and colorful board games, and if you ask Kyle to play you a set he would gladly take the time out of the day to play. Of course, it would all be in the name of science.

Being a senior math major, I have not yet completed my Computer Science 150 requirement and was interested to hear that he would be teaching the course in the Spring. I, like many math majors, fear this course and so in pursuit of knowledge I had a couple questions for our new professor. I was mostly interested in my most dreaded class at Wittenberg, but for everyone else I also delved into Kyle's past and hope that after reading this article, you feel compelled to seek him out and have a great conversation.

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Me: Did you always know that you wanted to teach?

Kyle: Yeah, I really did. While in college I did a full eight semesters of TA-ing. When I was in graduate school I basically had four years without teaching, though I really wanted to teach more. I only got to teach three courses and TAed once while in graduate school.

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NATIONAL SCIENCE FOUNDATION AWARDS WITTENBERG GRANT

Speed. Acceleration. Impact. Terms normally reserved for Nascar and space flight are becoming commonplace in Wittenberg's Computer Science program these days, thanks to a recent award by the National Science Foundation. At the heart of the effort to create a cutting-edge curriculum are technologies normally used for high-end graphics, video games, animations, and networking that are now being used to help speed scientific discovery.

Seeing the opportunity to prepare a new generation of computer and computational scientists to work together using state-of-the-art computing technologies, the department, lead by Computational Science Director Eric Stahlberg, partnered with Clemson University in a three-year innovative effort to integrate essential concepts for parallel computing across its curriculum. Parallel computing is the approach of using several computer processors simultaneously to speed applications and shorten the time it takes to get to meaningful results. Parallel and accelerated computing technologies have become common place with the widespread availability of multicore and graphics processors and are seen as essential to continue to boost performance of computer applications from the smallest desktop to the largest supercomputers.

As explained by Assistant Professor of Computer Science, Steven Bogaerts, "It's like building a house with one person. It will take a very long time to complete. However, if you put 20 people on the same task, it goes much more quickly and is less time consuming."

The project, awarded in August 2009, is just underway and already receiving a positive reception by industry professionals and peers alike. The approach, which seeks to introduce parallel computing as a new fundamental concept across nine existing courses, will help Wittenberg students get a leg up on computing even in the introductory classes. Clemson University, as well as several industry partners including SRC Computers, Avetec, OpenFPGA, and Oak Ridge National Lab will be providing opportunities and guidance to make sure students are well prepared to meet challenges they will face upon graduation. The project also makes integral use of experiential learning, using internships as opportunities to gather feedback about student preparation and using this insight to further refine the curriculum.

Along with completing challenging problems more quickly, there is another motivation for taking this innovative approach to reform the computer science curriculum. After hearing leading researchers in computing lament the fact that not



Computational Science director Dr. Eric Stahlberg, Computer Science Professor Dr. Kyle Burke, Nam Vu '10 (math major, computational science minor) and Wittenberg Alumnus Scott Michel '87 pose for a picture at the Supercomputing '09 conference in Portland, OR in November. Parallel computing was a hot topic at the conference.

enough undergraduates were being prepared to effectively use parallel computing technologies in graduate school and in industry, Stahlberg began the effort that resulted in this new innovative project. "It is important to prepare not only computer scientists, but also those students in other disciplines who increasingly rely on computation to recognize the potential of parallel computing. The students today will be the innovators for tomorrow and it is essential that these students have an appreciation of the technologies that will increasingly impact their disciplines."

The curriculum development and internship support provided by the National Science Foundation is bolstered by a new state-ofthe-art computing platform secured with support from the US Department of Energy and the state of Ohio through the regional Future Jobs initiative. The new system, dubbed WARP II, has the latest multi-core processors from Intel and high-end general purpose graphics processors from Nvidia. Reconfigurable computing capabilities will be added to the system and all will be placed in the hands of students and faculty to learn, research and innovate at the cutting edge of emerging computing technologies.

Applications including image processing, bioinformatics, computational chemistry, virtual reality, simulations and data analysis are areas that will feel the first impacts of the new curriculum. With a large cohort of Choose Ohio First scholars just starting their educational experience at Wittenberg, the project is aptly timed to have a major impact in the region and Ohio.

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IN THE SPOTLIGHT (continued from pg. 1)

Me: What class were you most excited to teach at Wittenberg?

Kyle: I was most excited to teach software engineering before I came here and I was really glad to get the chance to teach it right off the bat. It was a blast! I'm already looking forward to my classes this spring, but I'm most excited about teaching a combinatorial games class next year. I've already gotten lots of interest from students!

Me: What have you enjoyed most about Wittenberg, so far?

Kyle: I love the people I am around. The other faculty and my students are great. I teach two sections of Comp 121 and am teaching Comp 243. Talk about small class sizes. I have two students in that class. I like to brag about them.

Me: Have you had any big surprises since starting at Wittenberg?



Dr. Kyle Burke

Kyle: I was surprised at how much I enjoyed teaching 121. We covered some great topics there, and so many of my students showed great potential to be computer scientists. I wish more of them had elected to take my 150 class this spring!

Me: Can you explain your research in combinatorial games?

Kyle: It is a fun research area. Basically, I try to prove things about games. I go through algorithms to see who is winning and how fast can we decide who's winning games. I search for good, "fast", algorithms to solve the games. You are searching for what is hard and what is easy about Computer Science. We can equate some games with hard computational problems where efficient algorithms to solve them aren't even known (they might not exist)! Then we can say something like, "this game is really hard for a computer to play". Some games that look hard are actually easy to play well, but other games with very simple rules may be really difficult. It's a fun area that uses both computer science and math.

Me: Do you have any advice for Witt math and computer science students?

Kyle: Take Comp 150 early. Not only could it spark an unknown interest in Computer Science, which would increase enrollment, but it can help students with their logic skills. Comp 150 isn't about becoming some elite hacker. It's about coming up with ways to solve problems. You know, how we do things and how fast we can do them. Also a side note to the Computer Science majors...it is important not to be afraid of mathematical notation! It is there, it isn't going anywhere, and it is much simpler than you think.

Me: Well, thank you for your time, Kyle. I never realized that computer science majors feared mathematical symbols as much as math majors fear Python.

MAJOR NEWS

Deanna Fink (comp major and cosc minor '12): Over the summer, I was working a bit with Dr. Stahlberg on getting together an online subversion working area for the Geek House, as well as Geek House projects throughout the fall (building a computer, in the workings of making an iPhone App, etc). Also this fall I went to a conference for the Choose Ohio First Bioinfomatics Scholarship. I also went on an honors trip to Sweden in May and have done many philanthropy activities with my sorority.

Emily Linkous (cosc minor '10): Over the summer I was involved in a computational science internship at Wittenberg. I had the chance to pick my own topic and, given my love of insects, I decided to investigate the flight dynamics of the sphinx moth. Auto-desk Maya was used to animate the moth. I learned how to use the program to create the model and I was able to produce a fairly accurate mimicry of the moth's flight. I also went to Ohio State University's Stone Laboratory during the last part of the summer. There I took an entomology course and had an REU in Insect Collections Curation. I rearranged and improved the insect collection they have up there and I was able to make connections with people at OSU.

Sarah Kendrick (math '10): I had a pretty boring summer but I interned at Family Allergy and Asthma in Louisville, KY.

Nam Vu (math major and cosc minor '10): This summer, I worked with Dr. Eric Stahlberg in an effort to expedite the parallel

MAJOR NEWS (continued from pg. 3)

implementations of some problems using multi-core computers in Mathematica 7. This fall I attended a workshop on Parallel Computational Finance at the Super-Computing Conference in Portland, OR.

Sarah Braden (math '10): I went on the Africa trip with Dr Rosenberg this summer. It was a great way to fulfill my community service requirement and I recommend the trip to anyone who has a desire to experience something amazing! It was unreal (in a positive way)!

Mark Stahl (math minor '10): My summers have been amazingly fruitful. This past summer I spent my 3rd summer, and I'll return this summer as well, in the non-linear dynamic laboratory of the Army's Aviation & Missile Research, Development & Engineering Center (AMRDEC). AMRDEC is located in Redstone Arsenal in Huntsville, AL. This summer I completed collecting data for a long-running project in time-shifted synchronization of chaotic oscillator chain (phased arrays) using LabView to collect the data. This work resulted in a paper in Chaos (<u>http://link.aip.org/link/?CHA/19/043117</u>) and a conference proceeding to appear in SPIE's Defense, Security, and Sensors 2010. The rest of my summer was spent developing a new exactly solvable ODE chaotic oscillator. This new oscillator has had its go with conference poster and oral presentation (<u>http://meetings.aps.org/link/BAPS.2009.OSF.P1.28</u> and <u>http://meetings.aps.org/Meeting/SES09/Event/112660</u>). I gave the poster presentation while my mentor, Jonathan Blakely, gave the oral presentation. And finally a conference proceeding has been submitted to ISCAS by Ned Corron.

Brandon Bock (math '10): Now, as far as what I did this summer: I was head coach for my club swim team. I had a lot of fun with it--80 kids between ages 6 and 18. Kind of crazy, but a lot

of fun all of the same.

Kate Snead (math '10): This summer I remained on campus to get some general education requirements out of the way and free up some space for my Honors Thesis in the spring. I also completed an independent study in Industrial/Organizational Psychology. I would like to continue my research and get in to an I/O graduate program after I graduate.

Rebecca Atkins (cosc minor '10): This summer I was out at Fort Detrick in Maryland working on computational cancer research for the National Cancer Institute.

Paul Weber (math '10): Since last year, I've participated in another Research Experience for Undergraduates (REU) at the University of Nebraska-Lincoln. While there, I travelled to the University of Wyoming with a team of 2 others college students to attend a conference on Time Scales. When we got back, we started research-



Seven students participated in the Putnam Contest in December 2009. From L to R, we have James Duff, Shelby Cummings, Nam Vu, Savannah Kiser, Alex Griffith, Trang Ha, and Amanda Furness.

ing differential equations on time scales, applying our results to logistic population models. If it all works out, I plan to attend the Joint AMS/MAA meetings in San Francisco in January--and the best part about it is that Nebraska is funding my plane ride down there! If I learned anything this summer, it's that Universities have enormous amounts of cash they're willing to give to anyone with a good cause (alright, maybe not...). Other than that, I am looking forward to taking on a stats internship at the Center for Civic and Urban Engagement next semester! I'll be working alongside a couple other math majors, and as far as career options--it is definitely something I could see myself doing in the future!

Alex Sitarik (math '11) : participated in the Pre-REU program at Texas A &M last summer. She notes, "Participating in this program was one of the most beneficial things I have done for my education. Not only was I challenged mathematically, but I was surrounded by more than fifty other students with similar interests who were experiencing the same challenge as I was. This combination really gave me the confidence and drive to further my education in mathematics, and hopefully pursue graduate school in the near future."

Alex Griffith (math '11) :spent the summer learning about Groebner Bases with Dr. Adam Parker. He used those techniques to write a program that solves KenKen puzzles. He presented talks at Kenyon College, the University of Dayton, and Wittenberg. He also published a paper with the Midstates Conference on Undergraduate Research in Computer Science and Mathematics (MCURCSM). He hopes to examine the applications of Groebner Bases to coding theory this coming summer.

FACULTY NOTES

Brian Shelburne: Since Doug Andrews has taken over as chair of the department I've gone back to a full teaching load – and then some. This past Fall semester I taught Math 127: Introductory Statistics, Math 131: Essentials of Calculus, Math 460: Senior Seminar and a WittSem 100: To Infinity and Beyond – What Does That *Really* Mean? Teaching the statistics course was new for me; since our resident statistician Doug Andrews as chair has a reduced teaching load (but not a reduced work load), I volunteered to teach a much needed section of our very popular intro statistics course. Even though I audited Doug's Math 127 course last Spring when I was on sabbatical (as preparation for teaching in the fall), it was still a bit of a stretch for a mathematician/computer scientist like me to teach a statistics course.

Another new preparation was my WittSem course on Infinity. WittSem courses (derived from the old Common Learning Program) are taken by all incoming freshmen but now the particular topic is chosen by the instructor. As my description to the course states: "the study of the infinite is by no means restricted to mathematics. This course will be a study of infinity and the infinitesimal as it appears in geometry, aesthetics (arts & literature), science, philosophy, religion and culture as well as mathematics and puzzles."

In a sense my third course, Math 131, was also new since I decided to use a new text book. I'm interested in revising our one semester terminal course in calculus (terminal in that it cannot be used as a pre-requisite for any other math course) by making it less of a "cook book" course in applied calculus (aimed mostly at management majors) and more of a good "mathematical" one semester course in calculus.

But it hasn't been all mathematics and statistics since I also had an independent study in Computer Graphics; I did *some* computer science.

This year I am also the Program Chair for the Ohio Section of the Mathematical Association of America responsible for the programs (speakers etc.) presented at the Fall and Spring meetings. The fall meeting at Kenyon went well but there is a lot a preparation work involved; the spring meeting at Kent State promises to also require a lot of work. So it will be an interesting spring especially as I will take over as department chair (temporarily) as Doug will be on sabbatical leave.

Al Stickney: This past summer, I attended the MAA MathFest meeting in Portland, Oregon. It was a great meeting (but a very long flight). I've got another long trip coming up in January, when I fly to San Francisco to attend the Joint MAA/AMS Meetings. I haven't flown this much in one 12-month period in quite some time. This semester has been a good one. I'm teaching two sections of Calculus I and our Geometry Course. The Geometry Course is always a lot of fun as students have a chance to open their minds to the possibility of non-Euclidean geometries. We also had 7 students take part in the Putnam National Mathematics Competition. That event was accompanied by the traditional "Putnam Lunch" at my home, with cheesecake by Prof. Bill Higgins. In addition to San Francisco, I'll be at MathFest in Pittsburgh, Aug. 5-7, 2010. Look me up if you're in the neighborhood!

Bill Higgins: Our family made it back safe and sound from a one year leave in California. It's nice to be back in Ohio but as I sit here typing this it's about 20 degrees outside and snow is blowing. When I typed up my submission to the last issue of the newsletter, I was about five miles from the Pacific Ocean. I'm looking forward to returning to the west coast for the Joint Mathematics Meetings which will be held in San Francisco in January. At that meeting, I'll end my service on the editorial board of the MAA Textbook Series which I have been a part of for the past 6 years or so (it was formerly known as the Classroom Resource Materials editorial board) and I'll begin serving on two other national committees – the MAA Committee on Undergraduate Student Activities and Chapters, and the MAA Council on Outreach Programs.

I'm also looking forward to giving a presentation in late January related to "recreational mathematics" as part of Wittenberg Saturday Science Program, an outreach program for local high school students that Adam Parker was instrumental in starting up last year.

Steve Bogaerts: Over the summer, I worked for 10 weeks at the Center for Healthy Communities, which is connected with Wright State University. My time there was funded by the state of Ohio for the Ohio Future Jobs Pilot Project. While there, I studied the architecture and ongoing development of the federally-sponsored Nationwide Health Information Network (NHIN), along with various miscellaneous enterprise-level development tools. In September, I attended a joint meeting of the Miami Valley Computing Societies, where I met members of a statewide Python users group, and heard a presentation on a medical health records system. In November, I was part of a Wittenberg contingent attending the Supercomputing '09 conference in Portland, OR, where I attended a few tutorials on high-performance computing, including a talk on scientific computing with Python. Finally, with my equally tall colleague Kyle Burke, I have enjoyed periodic "very-high" fives.

Kyle Burke: As soon as I got here, I realized just how big Nancy's shoes are. Luckily, everyone else in the department is excellent, and I'm fitting in well. I've taken up a few cool new projects this semester, including a blog about combinatorial games (<u>http://</u><u>combinatorialgametheory.blogspot.com/</u>) which I update Monday, Wednesday and Friday. I've found teaching all my classes to be very fun.

I also had a blast at Supercomputing in Portland with other computer science faculty and students in November. This was an

FACULTY NOTES (continued from pg. 5)

excellent way to see the most cutting edge in high performance computing resources and programming tactics. I hope to be able to integrate some of what I learned into my Programming Languages course next semester. I've also become very good at preventing Doug Andrews from getting all his emailing done by asking him inane questions. Bonus!

Doug Andrews: I had a blast this past summer on a neat stat consulting job with the forensics crime lab of the Ohio State Highway Patrol, helping them use statistical sampling to make their operations more efficient when they test confiscated materials for controlled substances. The biennial US Conference on Teaching Statistics was also held this year, and I joined forces with stat educators from Grinnell College and Hope College to co-author a poster on post-introductory stat courses. I had a bit of fun over the summer, too: another week-long biking/hiking/camping trip with friends, this time in the hills of West Virginia, and the usual trip with my partner to hike with her family in the mountains of North Carolina. And I had a little too much fun on a family vacation at Ocean City: I was climbing on a rock jetty and sprained a shoulder when I got slammed into the rocks by a rogue wave. Fortunately I didn't crack my skull, and with lots of physical therapy my shoulder is now fully recovered. Whew.

Adam Parker: This summer I had a lot of fun working with Alex Griffith (math major, '11) on a research project involving the intersection of two things that I'm interested in. On one hand, we studied Algebraic Geometry, which involves studying algorithms that solve polynomial equations. Alex applied these techniques to Sudoku and KenKen puzzles and wrote a Mathematica program that solves them. The project was extremely fruitful, resulting in a publication as well as in multiple talks and presentations.

I've been revising some of my classes to include more historical documents and original sources. I've been particularly interested in doing this for the Ordinary Differential Equations class I taught this fall. It is fun both personally and professionally to find the "first occurrence" of some piece of mathematics which may have been published hundreds of years ago! I gave a talk at the Fall Meeting of the Ohio MAA at Kenyon College on the first appearance of Bernoulli's Differential Equation and the subsequent path to a solution.

Our very own, recently retired, Jim Noyes passed on to me a lot of information about the history of the department. Did you know that the 1845 charter members of the math department were J. Welty and H. R. Geiger? An upcoming project will be to go through all this information and put it into a usable form. Soon, I hope to fill in all the holes and put it up on the website. I'll be sure to let you know when that happens. Speaking of Jim Noyes, you may have read the following in the most recent issue of Wittenberg Magazine.

Jim Noyes: professor emeritus of computer science, recently presented a paper at the 20th International Symposium of Mathematical Programming in Chicago. The paper is titled "Mathematical Programming with Mathematica: Forming Models, Executing Methods, and Confirming Results" and is over 80 pages long! This weeklong optimization conference, held only once every three years was attended by upwards of 1,500 researchers, practitioners and educators from around the world. Optimization models and methods, involving both linear and nonlinear programming, are used in science, engineering, business and industry, and are key components of computational science.

ALUMNI NOTES

Brianne (Barclay) Gilbert (sociology '04) was a statistics minor at Wittenberg. She attended Florida International University and completed graduate studies in Sociology. She now resides in Los Angeles, California and was married this past summer. Currently she is a Senior Research Associate and describes her job as the "Day-to-day runnings of a university research center, including grant writing, budget management, statistical analysis, management of staff, etc."

Jonathan Morgan (comp '98) interned at Datatel the summer between his junior and senior years at Wittenberg, then worked for the computing department doing Colleague programming and documentation during his senior year. He got his Masters in Newspaper Journalism from New York University in 2005 and this fall started work on a PhD in Media and Information Studies at Michigan State University. He was married in May.

Jennifer (Groseclose) Koval (math '98) worked in the math workshop while at Wittenberg. She got her Masters in Business Administration from Otterbein College in 2003. Her first job out of school was part of the Relationship Banker Candidate Program at Huntington National Bank, but now she is a stay-at-home mom to her children Christopher and Rebecca.

David Reed (comp '91): "Now that I finished my book and am finishing up some work for a grant this summer, I'm looking forward to having some time in the near future to work on some more fun projects. I've got some ideas for integrating more technology into the curriculum that I think might become practical as we start to see more of the medium sized touch screen devices. The iPhone and

ALUMNI NOTES (continued from pg 6)

iPod Touch have some potential, but I think as we start to see touch screen netbooks with slightly larger screens in the next few years, there may be some interesting uses beyond what people are doing now with the 'clickers' for multiple choice questions, etc."

Sue McManus (math/comp '92) is "still at Nationwide (17 years...!) and I head up Interactive Marketing. I thought I'd share one interesting thing we've been doing. Forrester just released a case study on Nationwide Mobile for iPhone. Nationwide was the first insurance company with an iPhone app and the first insurance company to let our customers take a picture of their damaged car and send it to Nationwide to start the claims process."

Kristin (Spiegelberg) LaGuardia (math '93) "graduated with a math degree from Witt in 1993, and began teaching high school math that fall. I taught at the high school level for seven years, and then became an adjunct instructor of math at Cuyahoga Community College (Tri-C). In 2008 I was a full-time lecturer at Tri-C, and this school year is my first year as a tenure-track instructor."

Beth (Michelfelder) Stelz (math '97) is still in the banking industry, and is happy to report that her bank has not only survived the recent financial crisis but is thriving. Her bank merged with another bank out of Montana last year: Glacier Bancorp, rated #1 bank across the country in Bank Director Magazine in 2009. Beth remains the manager and VP of their main office in Durango, Colorado.

Geri Woessner (math '04) currently works in IT Project Management for Rolls-Royce, "although much of my work (the part I like the best) is around analyzing their portfolio of projects, identifying trends and developing strategies to maximize portfolio performance." Even with that sweet job and all the globetrotting, though, she's considering going back to school to get a PhD in math to fulfill her dream of teaching at the college level, and is exploring options for how to get it done.

Ellen Peterson (math '06) finished work on her masters degree at NC State and is working toward her doctorate, focusing more now on research, especially with Partial Differential Equations. "Specifically, I'm working with thin fluid films. I really enjoy the work because I get to examine the problems numerically, analytically, and experimentally. We are working with the physics department on an experiment.... I am currently finishing up work on two other papers that will hopefully be submitted by the end of the semester. I will be taking my oral prelim exam in 3 weeks. I am also planning on finishing up sometime this year (either spring or summer). Hopefully I will go on to a postdoc in the fall but am just starting the search."

Nat Coakley (math '07) reports: "I am getting ready to start my THIRD year of teaching, my second at Xenia high school – teaching 3 geometry, 1 honors trig, and 2 inclusion geometry classes. The inclusion is new to my schedule this year.... My big excitement from school this year is one of my students is coming to Witt!! I was up in July showing her around and now she is going!!... Also, last year, in October, I bought a house in Xenia!! I live about 5 mins from my parents and about 7 mins from work, on the southern edge of Xenia." During the 2008-2009 school year she taught 7th grade Math at Mint Hill Middle School in Charlotte, North Carolina.

Andy Bates (math '09) recently took a position as Operations Research Analyst with the Goddard Space Flight Center in Greenbelt, Maryland. His office deals with cost modeling and scheduling the project proposals at Goddard. As of the first week, Andy reports that he has "a lot to learn! Not only do I have to become familiar with all of their cost models, but they also need me to get up to speed on all of the satellite projects, the types of instruments on the satellites, and how everything works. My boss has given me 30 huge binders of information that I need to look over...."

Marshall Zarecky (math '09) just started the math program at Michigan State: "I'm taking three core classes: Algebra, Geometry/ Topology, and Real Analysis. For my TA assignment, I'll be teaching college algebra recitations on Fridays. Right now I have two sections.... Other than a few housing problems which are being sorted out as we speak, MSU is awesome. The bus system actually works, unlike the SCAT in Springfield."

We love hearing from our Alums. We want you to know that you can contribute your feedback to the department and provide us with your news by visiting...

http://www.wittenberg.edu/www2/forms/math/dept_alum.php

and filling out the info form. Thanks!

Considering a Donation ?

If you would like to make a donation to the math department, you can make a donation to the "MATH DEPARTMENT GIFT FUND" at

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Make sure to designate your donation to the math department. Your gifts help support undergraduate research, travel, and the general mission of the department. We appreciate all of your help.



Welcome!

The department would like to welcome all of our new majors and minors that have declared during the spring. We're happy to have you in the department!

Mathematics Majors:

Patrick Copeland '12 — Indianapolis, IN Shelby Cummings '13 — Cincinnati, OH Brittany Hartlaub '12 — Westerville, OH Ernest Heyder '13 — Marysville, OH Lauren Henry '12 — Urbana, OH Alan Trump '12 — Plainfield, IN

Mathematics Minors:

Thomas DeBell '10— Springfield, OH Melanie Muskelik '12 — Reisterstown, MD Kaitlyn Sherrock '10 — Springfield, OH Tim Uher '10 — Granville, OH Jacob Weide '12 — Fort Wayne, IN

Statistics Minors:

Julianne Lininger '11 — Springfield, OH Guoyu Ning '12 — Huai'an, Jiangsu Prchina

Computer Science Majors:

William Herrmann '12 — West Chester, OH Ernest Heyder '13 — Marysville, OH Bryce Reall '11 — Sunbury, OH

Computational Science Minors:

James Duff '10 — Mason, OH Melisa Shock '10 — Bellbrook, OH

Department of Mathematics and Computer Science Wittenberg University P.O. Box 720 Springfield, OH, 45501 Postage

