



Computational 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

In the last issue I teased you all with a non-announcement about a super new program that I wasn't quite allowed to announce yet. Well, I'm finally able to talk about it! Thanks to the vision and good will of a super-generous local patron, Witt will be the home of a new program to support local middle-school students who have promise in mathematics: the **Bullock Mathematics Academy**. Some of us have been at work planning this for almost a year now, and we're ready to roll out the program at last. You can learn much more about it in the feature article of this issue. Suffice to say that we're all really excited about this opportunity, which is a win for the students and their families, a win for the community, and a win for Witt.

In other news, Computer Science is one of several programs on campus that have been asked to create self-assessments of their strengths and weaknesses, as part of a broader university effort to examine the productivity of all our institutional programs. For us, this is a great opportunity to advertize the recent accomplishments of our excellent comp sci students and colleagues:

1. The number of students in the program is growing rapidly, from an average of only about 2 majors per year in 2007-11, to 4 in 2012, 8 on track for 2013, 10 scheduled for 2014, and even more in 2015. Only once ever - in 1994 - have there been more than 8 COMP majors in any year, so the program is in greater demand than ever in its history.
2. Witt's COMP program is not only meeting the standards of the field, but we're actually helping redefine these standards. A big part of this is the innovative way in which we're infusing the entire curriculum with Parallel and Distributed Computing (PDC) concepts and methods, as part of our big Accelerators to Applications grant - for which we've been recognized as an Early Adopter by the National Science Foundation.
3. Our teams continue to shine in programming contests. Witt teams have won the regional Denison programming contest for two years in a row now. And in the ACM's international programming competition, for three years running we've placed among the top dozen teams out of over 100 in our region of the continent, including teams from big research schools with mature comp sci programs, like Ohio State and Penn State and Carnegie Mellon and Purdue.
4. We're even developing a program in cybersecurity, another of the hottest areas in comp sci. And two of last year's COMP majors, Deanna Fink and Patrick Copeland, landed two of only six full-ride fellowships available nationwide for the CyberCorps program at AFIT, the US Air Force's graduate school.
5. The COMP faculty are very active and visible professionally - publishing papers, making presentations, leading workshops, maintaining blogs, etc. And the students are participating in greater numbers than ever before in student research projects, senior theses, and professional presentations. You can read about just a few of their accomplishments on pages 3 and 4 of this issue of the newsletter!

Although it's a bit scary to be asked to carry out a big programmatic self-assessment, we're happy to do so, as it gives us a great opportunity to show off all the great things going on in comp sci at Witt these days, and to show the program is really blossoming. And there's a lot to brag about!

Have a good winter break, everybody. And because I'll be on sabbatical leave next semester, look for a different author of this column next time!

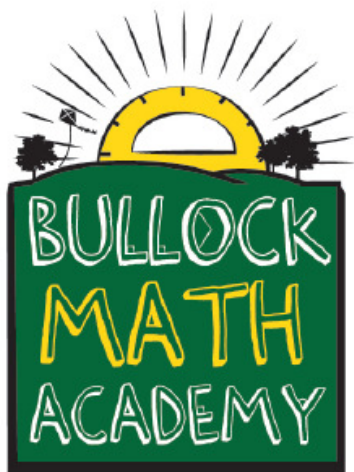
Sincerely,

Doug Andrews

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Going Bananas for the Bullock Mathematics Academy!



Wittenberg University's Department of Mathematics and Computer Science is proud to announce that it is preparing to launch its newest program: The Bullock Mathematics Academy. The academy will gather the "best and brightest" middle school students from the local surrounding schools, and provide them with many opportunities to enrich their math abilities. Dr. Andrews said it best when he said that "the point of the program is to help students see the usefulness of math in the real world, to get them excited about continuing studies in math, and to make sure those students who have promise in math will actualize this potential and make it to the college level and beyond." Some of the fun aspects of the program include a week-long summer immersion experience on Wittenberg's campus, monthly weekend events during the school year, and field trips. Behind this operation is a brilliant team composed of members from the Wittenberg Education and Math/CS departments, Advancement, the Hagen Center, and the Math Workshop. After lots of searching, the team settled on the perfect person to aide in launching and directing the program: Linda Hallinan.



Academy Director Linda Hallinan

Linda brings a lot of great energy and background experience to this new position. Prior to leading the new academy at Wittenberg, Linda started off in mechanical engineering. This career path took her on some exciting adventures, including designing aircraft wheels and brakes for Good-year Aerospace, designing missile launchers for ships in the Navy, and also designing automotive brakes at Delphi in Dayton. Linda said her favorite project was "designing the first ever real electric brake system for GM's first electric vehicle for which I was awarded three patents." Looking for a change of pace, she returned to school to get her master's degree in education, as well as her license in AYA integrated mathematics and physics. After putting these new licenses into action for 5 years, the perfect position opened up at Wittenberg University where she could employ all of her past work experience in one: Director of the Bullock Mathematics Academy.



Prof. Art Benjamin will be the first speaker at the Academy.

Linda also wanted to mention that this amazing new program would not put into place today without the help of Rosalyn Bullock. Wanting to "carry on her husband's memory and passion for mathematics," Bullock's attorney Dan Harkins proposed that she look into starting this math academy in conjunction with Wittenberg. Linda's main hope for this new academy is "to show scholars the beauty of math that is all around us." She hopes that through a project-based hands-on curriculum, students will understand how math really does answer problems we encounter in our everyday lives.

There are many aspects to love about this program, but what Linda is most excited about is the set up for "the high aptitude math scholars to give them additional opportunities outside of the classroom to further enhance their math content knowledge." Starting in the 7th grade, students will continue on through high school and beyond with the academy, allowing these students to build strong relationships with the different mentors in the program. Students can even look into taking college math courses at Wittenberg. The academy will continue to support these students in the future, providing scholarships to help them pursue their chosen career paths.

Another great feature of this program is the way that Wittenberg students can get involved. Witt students are able to become counselors for the summer institute residential camp and also for the monthly after-school program. If you find yourself interested in being a part of this wonderful program and applying for the counselor position, please contact the director, Linda Hallinan at hallinanl@wittenberg.edu.

Not only will this program benefit Wittenberg University and local students, but it will also be very advantageous to the larger Springfield community. Each year, the academy will bring in a nationally known speaker of mathematics and this will be open to the entire community. Linda is excited to announce that the first speaker will be Dr. Arthur Benjamin, professor of mathematics at Harvey Mudd College in California who has been on many popular TV shows including The Today Show, CNN, and the Colbert Report. On March 20, 2013, he will present what he calls "Mathemagics," where he "demonstrates and explains his secrets for performing rapid mental calculations faster than a calculator."

This academy brings great promise to both Wittenberg University and the great city of Springfield, and the Department of Mathematics and Computer Science looks forward to sharing more exciting information about its launch in the future!

Wittenberg Represented at the Famous Supercomputing Conference



SC12
Salt Lake City, Utah

academia.

Talks, tutorials, exhibits, workshops, poster session and more are all going on simultaneously at SC . One of the featured programs was the HPC Educator Program, which had speakers all day throughout the week of the conference. On the opening night of this program, there was an informal dinner and poster session where Dr. Bogaerts and Dr. Burke presented a poster together on “Strategies for Integrating Parallel and Distributed Computing Throughout the Undergraduate Curriculum.” Monday, Dr. Bogaerts teamed up with Dr. Joshua Stough, assistant professor of computer science at Washington and Lee University. They presented “Python for Parallelism in Introductory Computer Science Education,” discussing how, at their respective institutions, they have integrated ideas of parallel computation into introductory courses. Dr. Bogaerts specifically focused on talking about Comp 150—Programming I.

Also as a part of the Educator Program, Dr. Burke worked with David Bunde from Knox College to present a half-day workshop about how to teach with the language Chapel. The parallel programming language Chapel is beneficial because it is flexible, “supporting both OO programming and a low-overhead style similar to scripting languages.” Dr. Burke and Bunde spoke on the language’s benefits for students, including how it allows for students to “quickly try different parallel algorithms.”

On Tuesday of the conference, the dynamic Accelerators to Applications (A2A) team of Dr. Burke, Dr. Bogaerts, Eric Stahlberg (of SAIC-Frederick) and Melissa Smith (of Clemson University) ran a “Birds of a Feather” session called “Parallel and Accelerated Computing Experiences for Successful Industry Careers in High-Performance Computing”. This talk covered all of the different ways that these four impressive individuals have been working to revise the computer science curriculum for the better, including how to best “close the gap between preparation and application of high-performance computing.”

Our two professors were lucky enough to present in a total of four different events throughout the week, thanks mostly to the A2A grant Wittenberg received to help integrate parallel programming in most of our classes. This NSF-funded educational initiative was

created with the intent to “prepare students and faculty for teaching the next generation of computer science and computational science application engineers.” With the help of this grant, Dr. Burke is proud to announce that by summer time, these two hard-working educators, along with Dr. Brian Shelburne, will have created modules for nine total courses in Computer Science! These courses include Comp 121, Comp 150, Comp 250, Comp 255 (Organization), Comp 260 (Models), Comp 265 (PL), Comp 275 (Algorithms), Comp 331 (Hardware), and Comp 353 (Software Design).

The Mathematics and Computer Science Department is proud of these two outstanding professors and how they were able to represent Wittenberg University to the rest of the Computer Science community. Thank you for all of the ways you are constantly working to better this program and the students in it!



Dr. Bogaerts

Two of our very own computer science professors, Dr. Steven Bogaerts and Dr. Kyle Burke, recently had a huge role in the Supercomputing conference which took place November 10-16th in Salt Lake City, Utah. Held every year, the Supercomputing conference, or simply the “SC”, is known for being the “premiere international conference for high performance computing, networking, storage, and analysis.” Attracting as many as 10,000 people all over the world, the participants’ careers vary from jobs in industry to government to



Snow outside the conference center in Salt Lake City, Utah.



Dr. Burke

FACULTY NOTES

Doug Andrews: My summer was both productive and relaxing. In mid-May I attended and participated in the inaugural eCOTS (electronic Conference On Teaching Statistics) from the privacy of my own office, typically in shorts and a t-shirt! And in late July I had another stat ed consulting gig -- this time for the Forensic Science Institute of Ohio, held at the Columbus Police Academy and attended by county and municipal forensic scientists from across the state. My charge was to teach them about the use of statistical sampling of confiscated materials, and to develop their intuition about the significance testing so that they can defend the methodology in court. Earlier in July I also participated in a workshop on using R in statistical modeling, and I'll use what I learned to revise my stat modeling course for next time. The rest of the summer was spent in course prep and administrative work. And relaxing a bit, too: a trip to Texas for my niece's 18th birthday and high school graduation, a few days hiking on the Appalachian Trail, and a week-long bike trip in western Pennsylvania.

This semester I have two great classes, plus a senior honors thesis. I also led a couple students on a small institutional research project that led to a conference presentation for them. And I'm really looking forward to my sabbatical leave next semester, so that I can catch up on all those other projects I've been putting off!

Monkey Notes from Kyle Burke: The fall of 2012 was one of my best semesters. I had all 100-level courses so I got to see a legion of new faces and welcome them to the program. Steve Bogaerts and I have kicked butt at recruiting to the point where we have the most majors I've ever seen! We both also had successful presentations at Supercomputing in Salt Lake City. The advances in teaching parallelism Steve, Brian and I have worked hard for are getting a lot of attention.

I am still running weekly "board game lunches" and have often had eight people! This continues to be an excellent way to get to know students in a casual setting.

Steve Bogaerts: I'm teaching a WittSem for the first time this semester. We're exploring cybersecurity, considering key concepts in cryptographic tools, network security, and malicious programs. It has also been fun helping the students in their transition to college and advising them in their wide range of academic plans.

I just recently returned from the Supercomputing 2012 conference in Salt Lake City, UT. I gave a presentation "Python for Parallelism in Introductory Computer Science Education" in collaboration with a colleague from Washington and Lee University. My portion of the presentation described our work in integrating concepts of parallelism into our introductory computer science courses. I also participated in a presentation with Dr. Burke and some colleagues from other institutions on the scope of our work across the curriculum. Both presentations were well-received.

On a personal note, my wife and I are expecting our second child, a girl, in mid-April. So don't be surprised if I disappear for a bit towards the end of the spring semester! Mother and baby are doing well, and our son is looking forward to being a big brother.

Bill Higgins: This semester has been the first semester of a split sabbatical. I have spent it working on projects related to courses I teach. The math department offers a topics course each spring semester and this spring is my turn in the three year rotation to offer a topics course. I spent part of my sabbatical studying complex analysis with an eye toward offering a topics course in that subject. Though I enjoyed the process, I decided that I wasn't ready to offer the course. So I switched gears and worked on getting a better foundation in graph theory - the course I will actually offer. I also did some work developing applets with GeoGebra to use in Calculus. I had taken a minicourse on an introduction to GeoGebra at the Ohio Section meeting about a year ago and this was a chance to work through some of the material presented then.

Our son Prakash is working as an intern in Italy this year teaching English, as a teacher's aide, to Italian high school students. His younger brother Vijay, my wife Aparna and I are heading to Italy to spend Christmas break visiting Prakash and exploring Italy.

Brian Shelburne: Fall found me back teaching an overload again with courses in mathematics (Math 131: Essentials of Calculus and Math 460: Senior Seminar), statistics (Stats 127: Intro to Statistics,) and computer science (Comp 331: Introduction to Hardware).

Comp 331 was a new course for me and for our computer science program since we began using new hardware, specifically Digilent® BASYS-2™ FPGA (Field Programmable Gate Array) boards. Using Aldec's Active HDL™ software which was installed on our computer lab PC's, students were able to design circuits using a circuit design language called VHDL which could then be downloaded and implemented on their BASYS-2 boards. With FPGA technology, the circuit is actually implemented in hardware; it's not programming a computer-like device; it's actually implementing the design in hardware as an electronic circuit. FPGA board give you the capability of designing one-of-a-kind circuits for applications.

FACULTY NOTES (CONTINUED)



The input-output for the BASYS-2 board is rather limited as it only has 8 toggle switches and 4 buttons for input and 8 small LED's and one 4 digit 7-segment display for output (see below). One has to be "inventive" in designing and implementing an application which is part of the fun of working with the board. For example one of the assigned projects was to implement a multiplication circuit that would multiply any two signed values between -8 and +7 (the range of integers expressible using 4-bit two's complement notation). Displayed below on the 7-segment display is the equation 5 times 7 equals 23 hexadecimal (35 decimal).

The BASYS-2 board came "bundled" with the textbook with the whole package coming in for around \$100.00 which given today's prices for

textbooks is on the relatively cheap side.

Finally, I had previously written in last fall's issue of *Computational Times* that my article on *The ENIAC's 1949 Determination of π* was accepted for publication in the *IEEE Annals of the History of Computing*. I am now glad to report that the article *finally actually* appeared in the July- September 2012 issue (Vol. 34 No. 3) of the *Annals*.

Al Stickney: Well, here it is final exam week for the fall semester. This semester seems to have gone very quickly. All 3 of my final exams are still later this week, so I have a lot of exam writing and grading yet to do. As is the case every December, Wittenberg students took part in the Putnam Exam. The test was last weekend, and we had 7 students participate. During the mid-day break, my wife and I hosted the traditional "Putnam Lunch" for the participants at our house. We all look forward to that, especially since it includes a famous Bill Higgins cheesecake.

This year, I have a bit more time to devote to my classes. This past summer I completed a term as Governor of the Ohio Section of the MAA, and I also completed a term as a member of the Faculty Executive Board here at Witt. I've enjoyed being able to return my focus to teaching. This semester I taught Calculus I, Applied Matrix Algebra, and Linear Algebra. All 3 of the classes were very good and would compare favorably to any I've had in the past.

I have continued to experiment with the use of "classroom clickers" in Calculus I. I believe that they are a positive part of the learning experience, but it does take some additional preparation time. I plan to use them for the first time next semester in our Elementary Functions course, and I'll be interested to see how well that works out.

Adam Parker: After being on sabbatical in the spring, I was very excited to be back in the classroom this fall. However, this semester was dominated by a lot of committee work.

Off campus, I am chair of the Program Committee for the Ohio MAA. This means I am in charge of recruiting speakers and creating the program for two state-wide conferences for the Ohio Section of the Mathematical Associate of America. The first of the two conferences was held at Baldwin Wallace in October and was a success. The second conference is larger and will be held at Denison in April. I'm hoping this one goes as smoothly as the October meeting.

On campus, I have started a term on the Budget & Compensation Advisory Committee (BCAC). As you can imagine this is filled with important, but not necessarily pleasant, work. I enjoy seeing how the university is organized as well as working closely with senior administrators. I know that everyone has the best interests of Wittenberg at heart. I am also chair of the Academic Computing Committee (ACC). This is less work, but is also important as Wittenberg addresses its technological needs. We are also implementing a new series of talks where Wittenberg Faculty will present the interesting ways that they use technology in the classroom.

Next semester I'll also be chair of the department while Doug is on sabbatical. I wish him well, and will do my best to keep the boat afloat while he is gone. This honor comes with de facto membership on a few other committees such as the Math Workshop Advisory Committee, and the Computational Science Advisory Committee (well, the newly reconstituted non-official Computational Science Steering Committee), the Science Chairs, etc. etc. I'm sure you'll be able to read all about it in the next issue of *Computational Times* when I'm writing the View From the Chair article.

I haven't ignored my students though. I've got an independent study with Ernie Heyder this spring where we are extending the work that he did over the summer (you can read about that in the Major News Section), as well as several historical research projects. It will certainly keep me busy and off the streets this coming semester!

ALUMNI NOTES

Melissa Montag (math major, '97) was also a theater major. Melissa died earlier this summer. She had been teaching at Wayne High School in the Dayton area, and was working on a Masters degree in theater directing at Roosevelt University in Chicago.

After finishing his duties with the U.S. Air Force, **Ben Thoele (math major, '00)** co-founded the FitWit Foundation, which combines personal training and academic tutoring, especially for underserved children in the Atlanta area. Ben provides the overall vision and the day-to-day management for the Foundation, and is a certified strength and conditioning coach and certified cross-fit trainer.

Paul Hurd (math major, '01) is still in actuarial science. But he left Nationwide a couple years ago, and is now an actuarial manager for Grange Mutual, in their Personal Lines division.

Ditto for **Matt Sharp (math major, comp minor, '04)**: still an actuary, left Nationwide, joined Grange Mutual, now a manager in Personal Lines.

Alexa (Borquin) Doran (math major '06) is now a high school math teacher. She has been at four schools (she married into the military, so they move a lot), and is currently at West Jefferson High School in West Jefferson, Ohio. One of the classes that she is teaching this year is Probability and Statistics. This is not the AP course, but a course designed to give students an option for their fourth math credit instead of Pre-Calculus or Calculus.

Karl Schmitt (comp major, math minor, '06) is in the PhD program in Scientific Computing at the University of Maryland. He returned to Witt in late fall to give a presentation on his current work, titled "Applications of Complex Networks: Genome Assembly and Nonlinear Dynamics".

Emily (List) Dennett and Steve Dennett (math majors '07) are expecting their first child in 2013! They are living in Columbus.

Brian Bennett (math major, '08) had been working as an actuary for GEICO in the Washington, DC, area ever since leaving Witt, and has recently moved to the Chicago area.

Alyssa Armstrong (math major, '09) finished the Master's program in math at North Carolina State, passed her qualifying exams, and has started PhD work with her advisor. She has been doing a lot of teaching, is picking up a stat minor, and hopes to join the professorate at a school like Witt, aiming to graduate in two more years.

Whitney (Hull) Walsh (math major, '09) had a baby girl, Chloe, earlier this year!

Steve Sexton (math major, '09) got a job teaching math at Greenon High School here in Clark County. And he's teaching AP Statistics, too!

Sarah Braden (math major, '10) has been working for two years now at Reasoning Mind in the Houston area, but is now considering PhD programs in math.

Alex Griffith (math major, cosc minor, '11) has finished rotations at Northrop Grumman and seems headed for their Systems Engineering group, and he continues to study at Johns Hopkins. He's also learning to fly – and had his first solo flight recently!

Alex Sitarik (math major, '11) is still in the biostat program at the University of Michigan – no longer in statistical genetics, but now investigating the effects of air pollution on pre-term birth and fetal growth, and taking coursework on epidemiology. She still enjoys teaching – despite all the grading.

Lauren Henry (math major, '12) got a job teaching math at Northwestern High School here in Clark County.

Jordan Hildebrand (comp major, math minor, cosc minor, '12) is getting settled in Austin – playing soccer, figuring out where to eat and where to party, etc. – where he has started a PhD program in geology.

David Rea (math major, cosc minor, '12) is now eyeing PhD programs in math.

MAJOR NEWS

Sean Murphy (cosc minor '15) currently is planning on getting a group of students together to develop a software program that can easily deliver various amounts of information about a certain strand of DNA in mDNA as well as nuclear DNA. This could be made into an app form later on. This is going to be used, potentially, in a current project with **Dr. Goodman** in trying to differentiate between Africanized and non Africanized bees as well as differentiating between two cricket frog species of central and eastern North America.

Skylar Folkens (math major '15) and **Rachel Evans (math major '14)** both were awarded internships at the Pacific Northwest National Labs (PNNL) in Richland, Washington. These internships are awarded through the Noyce Scholarship program and administered by the Education department here at Wittenberg. The internships will allow Skylar and Rachel to incorporate cutting-edge research into their high school classrooms once they graduate.

This summer **Garrhett Via (stat minor '15)** did a 10-week research project for Dr. Dudek in the Chemistry Department. The project was titled: "Innovative Uses of the Vernier SpectroVis Plus Spectrophotometer within the General Chemistry Laboratory".

Jeremy Massengale (math minor '13) was (and still is) a research assistant in the quantum semiconductor research group at Air Force Research Labs at Wright Patterson Air Force Base. The bulk of his research has been in the optical characterization of quantum superlattices and quantum dots using photoluminescence spectroscopy (shoot a known energy laser at a sample, generate electron-hole pairs, detect the light from the electrons when they de-excite back into the valence band, send to computer for analysis). Details include experiment set up, data analysis/curve fitting, knife edge method of determining laser spot sizes by differentiating experimental curves, and calculations of the bound states in InAs, GaAs quantum wells. He will potentially will have two papers out before graduating from this experience.

Rachel Ross (math major '14) was an actuarial intern at Grange Insurance this Summer. She and **Becca Agnor (math major '14)** also presented at the Statistics in Sports Conference at Miami University this fall. They did a project on Athletes' GPAs In Season vs. Out of Season.



Over the summer and during the semester, **Lisa Simpson (math major '14)** worked with **Dr. Williams** in the Wittenberg University Plasma Laboratory (WUPL) on a laser manipulation system for use in dusty plasma experiments. She designed an optical system to focus our laser beam and also wrote a program using LabVIEW, a graphical programming language, to control the motors of our mirror system which directs the laser beam. In October, she presented a poster on my research at the Ohio-Region Section of the American Physical Society (OSAPS) meeting in Detroit, MI. They are currently in the process of improving our laser beam spot size and should be ready to take data during the spring semester.

Ernie Heyder (math major, comp sci major '13) worked with **Dr. Parker** on a research project creating photo mosaics (large composite pictures built from smaller pictures). His work resulted in a publication in the Proceedings of the Midstates Conference on Undergraduate Research in Computational Science and Mathematics '12. Ernie and Dr. Parker will continue the collaboration during the spring semester.

Peiqian Li (comp sci major '13) served as lead engineer on the creation of a new iPhone app called InTune. He collaborated with music professor **Dan Kazez** and art professor **Crispin Prebys** on the creation this app which plays two pitches and asks the user to determine the higher pitch. Repeated use of the program improves the ability to discern very close pitches. More information, as well as a link to download the app, can be found: <http://www5.wittenberg.edu/academics/music/app-intune.html>

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

The Wittenberg Fund
 Wittenberg University
 PO Box 720
 Springfield, Ohio 45504-0720

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:

- Arena Clicquenoi 'SCE
- Haley Conkel '16
- Kelcey Cook '16
- Hieu Dang '15
- Jessica Jeffries '16
- Rea Karachiwalla '14
- Kathryn Landon '15
- Linh Nguyen '15
- Jared Upchurch '16
- Mary Ann White '15

- Manas Mudbari '13
- Andrew Muir '13
- Alex Previte '13
- Nathaniel Rutter '13

Comp. Sci. Majors:

- Kim Bickford '16
- Tyler Bly '15
- Greg Dufek '15
- Stephen Ferro '16
- Daniel Kleitz '15
- Travis Lawrence '16
- Daniel Mason '16
- Tyler Schrader '15
- Harley Shugart '15
- Stephen Stuthers '16

Mathematics Minors:

- John Albertson '15
- Megan Betz '16
- Jamie Bowermaster '16
- Greg Dufek '15
- Amanda Fagan '14
- Chelsea Horvath '16
- Cody Mann '15

Comp. Sci. Minors:

- Laura Flynn '16
- Henry Kempkor '15
- Cody Mann '15

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Postage

