

logical times

have laptop will travel

TRAVEL ISSUE



Dr. Duane Buck, Delisa Mason, Justin Kuss, Shawn Winigman, Dr. Pete Sanderson, Dave Stucki

Three students stand in the cold rain of Portland, Oregon, on the final week of Winter Quarter, waiting for the street tram to make its rounds.

Delisa, Justin, and Shawn, three undergraduates majoring in Computer Science at Otterbein went on a trip with Dr. Buck, Dr. James, Dr. Sanderson, and Mr. Stucki to SIGCSE 2008. SIGCSE is the annual conference held to

discuss computer science education. Despite the six hour flights and rainy weather, the trip turned out to be a wonderful experience, not just for general educational purposes - it was a cultural experience too.

The central theme of the 2008 conference addressed "Diversity (see "Laptop," p. 2)

Historic Corner

The origin of the compass remains a mystery, but it is widely assumed that the earliest and simplest form of the compass came from China.

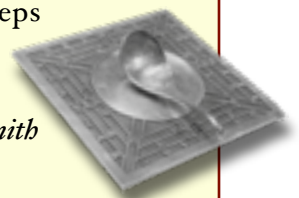
"Spoon compasses" were made using lodestones, rocks containing naturally magnetic minerals. References to this primitive type of compass can be found as far back as the fourth century BCE.

"When the people of Cheng go out to collect jade, they carry a south-pointer with them so as not to lose their way." *Book of the Devil Valley Master*

In ancient China, compasses were not truly created for navigation, but rather to indicate SOUTH. The direction of south brightness and was believed to have a calming influence.

Attending to direction, as a means of establishing harmony with the universe, became one of the first steps toward today's feng-shui.

Jeffrey P. Smith



HOT TOPICS IN MATH, COMPUTER SCIENCE, & ACTUARIAL SCIENCE

In March 2008, the Actuarial Outpost launched its actuarial wiki. The website offers an anthology of information about each Actuarial Exam, in addition to other general information about the profession. The wiki can be found at the address: www.actuarialoutpost.com/wiki/.



Actuarial Outpost uses the same powerful wiki software that runs Wikipedia.org, the internet encyclopedia. Currently, nine actuaries contribute to the postings. It is their hope to create the single most valuable wiki-based study tool for actuaries online, completely free of charge.

(Source: ActuarialNews.org)

LAPTOP (CONTINUED)

through Accessibility”. Lectures throughout the conference used this theme to approach service learning concepts.

For example, one session detailed how a group of students developed a communication board so that people with cognitive limitations can communicate with simple phrases. Other lectures during the conference ranged from Network Security to a seminar known only as “It Sounded like a Good Idea at the Time”. It’s always good to hear that professors aren’t perfect, sharing what went wrong with experimental labs.

Aside from three days of lectures, the trip allowed attendants to network with other schools and interact with a multitude of vendors ranging from Sun Microsystems to Microsoft.

Away from the formal conference, there were many other activities to do around Portland. You could get lost walking around the city for hours, spend time and money in Powell’s Books, or just ride the tram throughout town taking in the eclectic culture of Portland.

- Shawn Wmigan



MEET THE FACULTY - DR. ZHEN HUANG



Zhen Huang received a B.S. degree in Mathematics from Fujian Normal University in China in 1982.

In 1986, Zhen came to University of Iowa where he received two M.S. degrees in Mathematics and in Actuarial Science, respectively, and Ph.D. in Applied Mathematics. Zhen has been an associate of

the Society of Actuaries of North America since 1994.

Dr. Huang joined the faculty at Otterbein College in 1991. In 2000, he took a one-year leave and worked at Unica Cooperation in Boston, where he utilized his applied mathematics knowledge in helping develop data-mining technology. He returned to Otterbein in the fall of 2001. After that, he initiated and was instrumental in

the establishment of the Actuarial Science Program with B.S. degree at Otterbein College. He teaches a variety of applied mathematics and actuarial science courses. His current research interests are in risk modeling and risk management.

In his leisure time, Zhen Huang enjoys having a cup of green tea and reading non-mathematical books.

THE PUNCHLINE



**WHAT ADDS, SUBTRACTS, MULTIPLIES, DIVIDES,
AND IS ATTRACTED TO LIGHT?**

A MOTHEMATICIAN!

DO YOU HAVE A HUMOROUS STORY, A FUNNY JOKE, OR AN INTERESTING RIDDLE RELATED TO MATHEMATICS, COMPUTER SCIENCE, OR ACTUARIAL SCIENCE? SEND IT TO JSMITH@OTTERBEIN.EDU AND YOU COULD BE FEATURED IN A FUTURE EDITION OF "THE PUNCHLINE."

SHARE THE LAUGHTER!

A FRIENDLY “LOVE FOR MATH” COMPETITION - BATTLE ON!

Eight Schools from the Eastern Central Colleges took teams comprised of no more than four students each to a mathematical competition hosted by Mount Union College on Saturday, April 5th, 2008 from 10:00 a.m. to 1:00 p.m. This competition was a very friendly one in which students from around these schools share a common and yet very rare love for mathematics. Along with a challenging test, taken by each team separately, an afternoon pizza party provided a time for participants to socialize.



Sean Poncinie, James Orr, Justin Kuss, Shawn Winigman, Elizabeth Watts, Larsa Ramsini, Meghan Wagner, Delisa Mason

The first order of business when we arrived was to sign in and choose an appealing name for your team from a list of mathematical terms and people. For example my team was named, Pi, of course coming from the ratio between a circles circumference to its diameter. After every team chose their name and had a small breakfast, it was off to separate rooms where the competition would begin.

Each room was at least the size of a conference room and consisted of nothing more than, your teammates, the test, a table, chairs, a chalkboard, pencils and paper. No team could use outside help from any source including books, professors, or the internet. It felt as if you were given this test and put in a room cut off from the rest of the world for three hours, which was the purpose.

Time flew by as we approached each problem, but working as a team kept us from getting lost in a single problem. I feel working as a team is best because we have more area of expertise which makes us more productive and much less pressure is put on a single person. Once we finished the test at the allotted time, we all felt relieved that we finished it with minimal problems, and were excited for some pizza.

Overall this experience was a fantastic one because it opened my eyes to how many people share this rare love for mathematics. I would encourage anyone who has a passion for math to join us next year for the 12th Annual ECC competition which will be hosted by Otterbein College.

- Sean Poncinie

MATT'S TRAVELOGUE

On April 11th and 12th, I travelled to Marietta, Ohio to attend the spring meeting of the Ohio Section of the Mathematical Association of America. The invited speakers were Bill Higgins of Wittenberg University, Lew Lefton of the Georgia Institute of Technology, and Carl Pomerance of Dartmouth College. Otterbein's own Christian James gave a talk on a contributed paper co-written with Mary Hyde, an Otterbein student, and Otterbein professors Zengxiang Tong and Thomas James.

Professor Higgins kicked off the meeting with an interesting talk about the work of the ancient mathematician Archimedes. Archimedes has been in



MATT (CONTINUED)

the spotlight lately because of a recently rediscovered manuscript, the Archimedes Codex, which contains a tenth-century copy of Archimedes' work. Professor Higgins talked about some of the fascinating mathematics in the Codex, including calculating volumes using ideas of centers of balance and fulcrums.

Professor Lefton, who, interestingly, doubles as a stand-up comedian, gave the next talk. It was titled "Infinity Bottles of Beer on the Wall," and was a hilarious display of an uncountable number of mathematical jokes. My favorite was his story about a radio station promotion where they wouldn't play commercials all day long and would play any request at all. "I called and requested they play a commercial," Lefton quipped. He ended his set by setting up a long and complicated joke involving various talking animals and strange situations. "We're out of time, so the punch line is left as an exercise."

After these talks there was a number of interesting student presentations. Some of the topics were modern cryptology conundrums, logic puzzles in Harry Potter books, and the mathematics of riding a unicycle. Perhaps you have a topic you would like to present on next year!

The next day, I was joined by Christian, Mary, and Dr. Tong. Dr. Tong and I attended the talk by Professor Pomerance about Euler's phi-function, which determines the number of positive integers less than n that are relatively prime to n . Although there is an elementary formula for $\varphi(n)$, there are still a number of unsolved questions dealing with this function. Professor Pomerance talked about some of these questions and the current research that is being done in this area of mathematics.

After this talk, Christian gave a short presentation about his paper, titled "The Extended Lagrange Mean Value Theorem." Despite a computer glitch, Christian did a good job talking about a way to loosen the assumptions on the traditional mean value theorem without changing the conclusion. He introduced the concept of tangentiality of a function and talked about extending other important theorems of calculus in a similar way.

Professor Lefton concluded the session by giving a serious talk about distributed computing. He talked about some large-scale distributed computing projects, such as the Great Internet Mersenne Prime Search (GIMPS), and he did an excellent job convincing us that the best use of computers is in mathematics (as if we needed much convincing!).

Overall, I had a wonderful time at the Ohio MAA spring conference. There were so many great presentations and ideas and insights. I encourage everyone, especially students, to attend and present at future conferences. See you next year!

- Matt McMullen.

Calendar

May 29, 2008

Mathematical Sciences Department
Annual Spring Picnic, 4:00 - 6:30 pm
Hoff Woods Park, 556 McCorkle Blvd,
Westerville, OH

June 4, 2008

Academic Honors Convocation
Cowan Hall, 3:15 pm

June 15, 2008

Undergraduate Commencement,
Rike Center, 11:30 am



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