

UNDERGRADUATE MATHEMATICS SEMINAR

The next meeting of the seminar will be this coming **Monday, October 23**, in Bailey 312 beginning at 7:00. As usual, fresh cider and donuts will be provided.

In this week's seminar, Professor Kathryn Lesh will present the following talk:

TITLE: The Birthday Paradox and Attacks on Public-key Cryptography

ABSTRACT: How many people must be in a room before there is at least a 50% chance that two of them have the same birthday? I'll talk about how the answer--a surprisingly small number--turns out to have implications for the encryption methods that we use every day to secure communication over the Internet.

Where is Professor Tønnesen-Friedman?

Greetings from **Southern France!** I am taking a little break from the busy fall term to attend the conference GEOMETRIE DES VARIETES COMPLEXES II (Geometry of Complex Varieties, Part 2) at the research center CIRM in Luminy, near Marseilles, on the Mediterranean Sea. We are about 50 mathematicians from all over the world (from France (of course), Italy, England, Canada, US, Iceland, Japan, to name some of the countries represented) who are all interested in this particular branch of geometry.

After a **good** 30 hours of travel last weekend, I gave a talk on Monday night entitled "Classification of Extremal Metrics on Geometrically Ruled Surfaces," based on some work I have done with my collaborators, V. Apostolov (from Canada, via Bulgaria), D. Calderbank (England), and P. Gauduchon (France). Now I get to lean back and enjoy the other talks – there are seven or eight 45 minute lectures spread throughout the day, the first one

starting at 9:00 am and the last one ending right before dinner at 7:30PM. In addition to attending the lectures, along with my three aforementioned collaborators who are also here at the conference, I am working hard on some ongoing and new research projects.

The weather has been beautiful and I hope during my week here to find time to enjoy a hike and perhaps a swim in the sea. The food here has ranged from absolutely delicious (bouillabaisse seaside in France) to interesting (a sheep stew comes to mind...).

While I am away, Bill Zwicker is teaching my Math115H class (thanks Bill!) and Chad Orzel is keeping our IMP class busy (thanks Chad!). Thanks also to the Math 115H class for taking a double class last Wednesday.



Do you have any ideas
for future newsletters?

E-Mail:
<mailto:friedmap@union.edu>

We're on the Web!

See us at:
<http://www.math.union.edu>

under "Department Activities"

Resources for Students

- Prepare for the Winter! Don't forget to check the results of the winter term math course petition process. They will be posted Monday October 23 at <http://www.math.union.edu/courses/cards/welcome.html>. If your petition for a course was accepted, you **MUST** go to the Math Department office between 8AM and 4PM on Monday the 23rd or Tuesday the 24th to sign an acceptance form that will reserve your place in the class. If you do not, your space in the course may be given to someone else.
- Looking for a Good Book? One of the many interesting web pages written by The American Mathematical Society (AMS) contains reviews of novels, essays, biographies, etc. that have a relationship with mathematics. Start surfing at <http://www.ams.org> or jump straight to the reviews at <http://www.ams.org/ams/reviews.html>.
- Take a Turing Tour. This month's issue of Notices of the AMS is a tribute to Alan Turing, whose fundamental contributions to logic, computer design, cryptology, and many more subfields of mathematics are described therein. The issue is available for your reading pleasure in the Math Department's Common Room on the second floor of Bailey Hall.
- Thinking of Teaching? Knowles Science Teaching Foundation (a growing multimillion-dollar foundation) in Moorestown, New Jersey is seeking applications for the 2007 Cohort of Mathematics Teaching Fellows – people who have earned at least a bachelor's degree in mathematics and now want to become licensed to teach high school mathematics. The fellowship provides both financial and professional support for up to five years, including tuition assistance and a stipend while fellows participate in a recognized teacher credential program. The application deadline is January 16, 2007. For more information, see the announcement on Bailey Hall's first floor bulletin board.
- Thinking of Administering? The Knowles Science Teaching Foundation (see above!) is advertising an opening for a Mathematics Program Officer to assist in planning, coordination, and management of the Mathematics Teaching Fellows Program. The starting date of the position is listed as Spring/Summer 2007 – so if you are interested, start working on your application. For more information, see the announcement on Bailey Hall's first floor bulletin board.

Problem of the Newsletter: October 20, 2006

Congratulations to **Susan Beckhardt** and **Schuyler Smith**, co-winners of last week's Problem of the Newsletter contest. You can view a winning solution on the first floor bulletin board in Bailey Hall.

Here is this week's problem: The shorter leg of an integer-sided right triangle has length 2006. How short can the other leg be?

Professor Friedman will accept solutions to this problem until 12:00 noon Thursday, October 26. Please put your solution in his mailbox in the Math Department's office on the second floor of Bailey Hall. Be sure to include your email address with your submission. The student who solves (correctly!) the most PONs will receive a one-year student membership into the Mathematical Association of America, courtesy of the Math Department!