

## UNDERGRADUATE MATHEMATICS SEMINAR

On **Tuesday, May 29<sup>th</sup>**, there will be a special undergraduate seminar, starting at **4:15** in **Bailey 207**, preceded by refreshments in the Math Common Room. **Professor Robin Lock**, a Professor of Statistics at St. Lawrence University, will deliver the talk.

**TITLE: Optimization Applications of a Poisson Model to Rate Teams and Predict Results in College Ice Hockey**

**ABSTRACT:** The Poisson distribution is often used to describe the behavior of “rare” events in a continuous time frame. A good example is the scoring of a goal in ice hockey. But what should we use as the expected scoring rate parameter for the Poisson distribution? We describe a multiplicative model for scoring rates that depends on the offensive ability of a team, the defensive ability of its opponent and a “home ice” factor. This model is used to compute College Hockey Offensive and Defensive Ratings known as CHODR (pronounced like the clam soup) that are currently applied to NCAA Men’s and Women’s teams at the Division I level. With this model we can rate and rank teams, predict outcomes of future contests, and calculate probabilities of game events. The ratings are estimated from past game scores and take into account varying schedule strengths for teams from different leagues. Current rankings and forecasts, past results and discussions of the model can be found at <http://it.stlawu.edu/~chodr>.

## Math Department End-of-Year Picnic on Monday!

Tired of the dining halls? The annual Math Department end-of-year picnic will be on Monday, May 28 from 4:30-6:30 in the courtyard between Bailey Hall and Butterfield Hall. The Department will be providing food, drinks and good spirit (not spirits). A volleyball net will be set up. Feel free to bring Frisbees or any other outdoor games you have and would enjoy playing with other math students, your math professors, their families, and Linda – the tireless math department secretary.



## Help Wanted!

### Fall Term Tutoring Positions in the Calculus Help Center Available

Do you enjoy helping your classmates with their calculus assignments? Have you taken the calculus courses through Math 115? Have you received As or A-s in these calculus courses? If so, consider applying for a tutoring position in the Calculus Help Center.

Tutors in the Calculus Help Center work one night per week, Sunday – Thursday in the Fall term, from 7:30 – 10:00pm. A tutor is responsible for helping students in all calculus classes from Math 100 through Math 115. (It is helpful if you have had Math 117 as well, but this is not necessary.) And yes, tutoring is a paid position!

If you are interested in becoming a Calculus Help Center tutor, please send an email to Professor Friedman at [friedmap@union.edu](mailto:friedmap@union.edu) expressing your interest. In your email, describe your calculus background, including your AP coursework (if any), the math courses you have had at Union (course numbers and professor name), and your grades in these courses. For full

### Resources for Students



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"

- What Will I Do When I Graduate? The May/June issue of *Focus, The Newsletter of the Mathematical Association of America*, has an interesting article entitled "Do You Want to Be a Quant?" describing some of the math used in the world of Financial Mathematics and Financial Engineering. If this intrigues you, stop by the Math Common Room on the second floor of Bailey Hall to read this article.
- Math Movies! Edwin A. Abbott's book Flatland is being made into a short animated film, *Flatland the Movie*, to be released this summer. (If you have never read this classic, put it on your summer reading list.) A trailer for the movie is available at <http://www.flatlandthemovie.com>.

### Problem of the Newsletter: May 25, 2007

Congratulations to **Brandon Bartell '10**, **Ronghua Dai '08**, **John Peters '10**, and **Cathy Scheer (MAT program)** for submitting correct solutions to last week's problem of the newsletter. You can see a winning solution posted on the bulletin boards around Bailey Hall.

**Here is this week's problem:** This problem is from the sprint round of the national Mathcounts competition, courtesy of Mathcounts participant Schuyler Smith. Schuyler notes that the average time allotted for such a problem is 80 seconds! (Feel free to use more time, though...)

If each letter in the expression  $[a + (b/c)]*(d+e)$  is replaced by a different digit from 1 through 9, inclusive, what is the smallest possible integer value of the expression? (Justify your answer.)

Professor Friedman will accept solutions to this problem until 12:00 noon Thursday, May 31.