Faculty in the News
By Nat Smale

Ken Golden was the guest of honor at the Friends of IHES Gala in New York, on November 18, 2013. The IHES (Insitut des Hautes Etudes Scientifiques) is a premier research institute in mathematics, in France, a place many of us have visited. The gala was a major fundraising event for IHES. See the link http://www.ihesgala.org/index.html for more details.

Ken was also featured in in "The Science of Ice", an NBC report on January 9, 2014. You can see him discussing the friction properties of ice here http://nbclearn.com/2014olympics/cuecard/68320 .

Ivan Sudakov, who also studies sea ice and climate, won the 2013 Green Talents award for outstanding potential in sustainability research. The award is given by Germany's Federal Ministry of Education and Research. According to the Ministry "The Green Talent's jury was particularly impressed by Sudakov's scientific record so far, and his strong commitment to interdisciplinary interaction between mathematics and climate science." See more about the award, and Ivan in the article http://unews.utah.edu/news_releases/utah-mathematician-gets-sustainability-prize/ .

Inquiry in Mathematics
By Steffen Marcus

The main goal of Math 4800 this fall was to provide an introduction to the techniques of mathematics research by way of independent study and problem based learning. Through weekly readings and an independent project, six bright students (Brady Bowen, Logan Calder, Nate Call, Stephen Durtschi, Drew Ellingson, and Joshua Keeler) and myself were exposed to a variety of mathematical ideas targeted at advanced undergraduates. Our focus was reading a selection of Paul R. Halmos-Lester R. Ford award winning expository papers published in the American Mathematical Monthly between 1964 to the present.

In the first week, we each chose our ten favorite papers based on a cursory reading of abstracts and some discussion. We then compiled our class list of favorites from those, and formed the following reading list for the semester:

- Week 1: *The Mathematics of Doodling* by Ravi Vakil;
- Week 2: *A Marvelous Proof* by Fernando Q. Gouva;
- Week 3: *Overhang* by Mike Paterson and Uri Zwick;
- Week 4: *Circles in Circles* by Katherine Socha;
- Week 5: *How to Make the Most of a Shared Meal* by Lionel Levine and Katherine E. Strange;
- Week 6: *Finding Good Bets in the Lottery, and Why You Shouldn't Take Them* by Aaron Abrams and Skip Garibaldi;
- Week 7: *Integral Apollonian Packings* by Peter Sarnack;
- Week 8: *A Better Way to Deal the Cards* by Mark A. Conger and Jason Howald;
- Week 9: *A $1 Problem* by Michael J. Mossinghoff;
- Week 10: *Down with Determinants!* by Sheldon Axler
- Week 11: *Fourteen Proofs of a Result about Tiling a Rectangle* by Stan Wagon;
- Week 12: *Another Way to Sum a Series* by Dan Kalman and Mark McKinzie.

We each took turns leading the week's discussion of the papers.

The main componenets of the evaluation for the course were responses to these readings, class participation, and a final expository paper handed in at the end of the course on a topic of each student's choosing. Students chose topics in analysis, group theory, tropical geometry, fractals, and applied mathematics for these papers. The course ended up being a lot of work for everyone involved, but I believe we all found it to be truly rewarding.

Holiday Party
By Angie Gardiner

On December 13 the department gathered for another festive holiday party. They came for the food and stayed for the program. We appreciate everyone who contributed to the delicious potluck meal, and we especially appreciate those who contributed to the program. We were treated to some Cantonese opera by Weicong Su and Aaron Bertram provided a few beautiful piano solos. Several staff and graduate students provided the humor, and Santa brought some early presents for a few members of the department. There was ample time for visiting and plenty of delicious food, and a good time was had by all.

& Gifts!

Music,

Skits,

Main Office Remodel
Complete!

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