Dear Carleton College Mathematics Major Alumni:

Much has happened since our last newsletter. We welcomed two visiting faculty members, Tommy Occhipinti and Miles Ott into the department. Our number of majors continues to remain high with 51 and 38 in the junior and senior classes, respectively. Carleton students continue to be active in undergraduate research and other extra-curricular mathematical activity. For example:

- The fifth annual Northfield Undergraduate Mathematics Symposium was held at St. Olaf in October. This year’s event included talks by Martin Bobb ’14, Cora Brown ’14, Greg Michel ’14, Dylan Peifer ’14, and Harrison Reeder ’15. Martin spoke about volumes of hyperbolic knot complements, Cora about maximum arc digraphs and zero forcing numbers, Greg about Cayley graphs, Dylan about difference sets, and Harrison about evaluating adaptive clinical trials.

- During winter term three students gave talks on research they did with Carleton faculty members this past summer at a special student research colloquium. Leo Betthauser ’14 reported on work he did with Eric Egge, and Jordan Cahn ’16 and Jacob Spear ’16 spoke about work they did with Rafe Jones.

- This past summer two papers by Carleton students working with Carleton math faculty were (finally) published. Erin Jones ’12 and Landon Chan ’11 published a paper in the Pi Mu Epsilon journal on Young’s lattice, and Andy Hardt ’13 and Justin Troyka ’13 published a paper on pattern-avoiding signed permutations in the Journal of Pure and Applied Mathematics. Erin’s paper is based on work he did with Eric Egge in the summer of 2009, and Andy and Justin’s paper is based on work they did with Eric in the summer of 2011.

- In January senior math majors Martin Bobb, Cora Brown, Greg Michel, Dylan Peifer, and Michelle Yuen presented posters on their summer research at the MAA Undergraduate poster session at the Joint Mathematics Meetings in Baltimore. All of the Carleton posters were well-received, and Martin’s poster ”A Geometric Interpretation of Knot Complement Gluings” was among the presentations selected as Outstanding by the faculty judges.

- Isaac Garfinkle ’17, Michelle Mastrianni ’16, and Jacob Spear ’16 took first place in the Konhauser Problemfest in February, so the pizza trophy has returned to the table in our department reception area.

- Laura supervised 3 math/stats majors who did statistical consulting over the summer of 2013. The students worked on projects from community partners, including the City of Northfield, Northfield Community Action Center, The Tea Garden and Steepery Tea Bar, and the Minnesota Pollution Control Agency.
The faculty also continues to be involved in a number of scholarly activities. For example:

- Bob Dobrow’s book **Probability with Applications and R** was published by Wiley in 2013.
- Laura is continuing her collaboration with Prof Nega (ENTS) analyzing landscape ecology data. She moderated a roundtable discussion on "Statistics Projects from the 'Real World’" at the Joint Statistical Meetings in Montreal (2013) and serves on the ASA/MAA Joint Committee on Undergraduate Statistics that recently released a statement on [Qualifications for Teaching an Introductory Statistics Course](http://www.ams.org/programs/diversity/citation2014).
- Deanna Haunsperger is organizing a 2-credit service-learning course on helping local communities teach the math part of the new GED exam. The Carleton Summer Mathematics Program for Women will be in its 18th summer this year; this vertically-integrated program which boasts 56 alumnae with PhDs and another 71 currently enrolled in graduate programs in the mathematical sciences was just named one of the [AMS Mathematics Programs that Make a Difference](http://www.ams.org/programs/diversity/citation2014).
- Helen Wong had a daughter, Grace, born March 2013 and returned to teaching this spring after 1 2/3 years away. A paper with a result from her comps group on DNA topology in 2010-11 was accepted for publication in the Journal of the Korean Mathematical Society. It’s titled *Knotted and Linked Products of Recombination on T(2,n)#T(2,m) Substrates* and is co-authored by Jeremy Grevet, Qi Li, Chen Sun, and Erica Flapan. Erica was the Headley Distinguished Visitor in 2011 and worked with her comps group while she was here.
- Mark Krusemeyer’s book **A Mathematical Orchard** (with George Gilbert and Loren Larson) was published. In the summers he still teaches at Mathcamp, an intense and exciting program for gifted high-school students ([www.mathcamp.org](http://www.mathcamp.org)), which will be in Portland, Oregon this summer.

The **Steven Galovich Prize** awarded to math majors who exhibit an enthusiasm and love for mathematics was shared this year by Martin Bobb ’14 and Greg Michel ’14. In the fall, the math department hosted the Chesley Lecture. This year’s Chesley speaker was Jim Propp, of the University of Massachusetts at Lowell, who is known around the world for his work in combinatorics and probability. Professor Propp gave a lecture titled *Wild Beauty: Postcards from Mathematical Worlds* to an audience of over 200, as well as a colloquium on *Quasirandom Processes*. See more at: [Chesley News Story](http://www.ams.org/programs/diversity/citation2014). Other visitors include Joe Silverman who gave two talks, one entitled *Taxicabs and Sums of Two Cubes - An Excursion in Number Theory* (public lecture) and one entitled *Arithmetic Dynamics: A Modern Meld of Number Theory and Dynamical Systems* (for math majors). For more information, see: [Math Across The Cannon](http://www.ams.org/programs/diversity/citation2014).

As always, we are interested in making sure we have current information about you and in exploring how our current students might benefit by increased contact with Carleton alums. Please update us on your activities, professional and personal, whatever you are willing to share. There is an alumni check-in form on our website for your reply:

[https://apps.carleton.edu/curricular/math/alumni/profiles/](https://apps.carleton.edu/curricular/math/alumni/profiles/)

We look forward to hearing from you,

Carleton Mathematics Department