
University of Minnesota
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DREW ARMSTRONG
Curriculum Vitae

EMPLOYMENT

NSF Postdoctoral Fellow, University of Minnesota, August 2006 to present.

Graduate Teaching Assistant, Cornell University, September 2002 to June 2006.

EDUCATION

Cornell University, 2002 to 2006. Ph.D. Mathematics, August, 2006.

Thesis Title: Generalized noncrossing partitions and combinatorics of Coxeter groups

Advisor: Louis Billera

Queen's University, 1998 to 2002. B.S. Mathematics, 2002.

RESEARCH INTERESTS

Algebraic, geometric, and topological combinatorics.

FELLOWSHIPS AND AWARDS

NSF Postdoctoral Research Fellowship, August 2006 to May 2009.

Hutchinson Fellowship, Cornell University, Department of Mathematics, 2005.

For excellence in the graduate program, including research and teaching.

NSERC Postgraduate Scholarships A and B, awarded in 2003 and 2004 (declined).

Nellie and Ralph Jeffery Award, Queen's University, 2001–2002.

For excellence in undergraduate mathematics.

NSERC Undergraduate Summer Research Awards, 2000, 2001, and 2002.

Chancellor's Scholarship, Queen's University, 1998 to 2002.

Full tuition entrance scholarship.

PUBLICATIONS, PREPRINTS AND WORK IN PROGRESS

5. "Noncrossing partitions and antichains in the root poset" (with Hugh Thomas), in preparation.
4. "Paleozoic lattices," in preparation.
3. "Nonhomogeneous parking functions and noncrossing partitions" (with Sen-Peng Eu), 9 pages, *Electronic Journal of Combinatorics* R146 Volume 15(1), 2008.
2. "The sorting order on a Coxeter group," preprint (submitted), 34 pages, 2007.
1. "Generalized noncrossing partitions and combinatorics of Coxeter groups," 175 pages, 2006, *Memoirs of the AMS*, to appear.

RESEARCH TALKS AND CONFERENCE PRESENTATIONS

University of Michigan Combinatorics Seminar, November 2008.

University of Illinois Urbana-Champaign Combinatorics Seminar, November 2008.

NC State University Algebra and Combinatorics seminar, November 2008.

FPSAC, Universidad de Talca, Chile, July 2008.

Louis Billera 65th Birthday Conference, Cornell University, July 2008.

Washington University in St. Louis Combinatorics Seminar, May 2008.

NC State University Algebra and Combinatorics Seminar, August 2007.

AMS Sectional Meeting, Special Session on Algebraic Combinatorics, Tucson, AZ, April 2007.

SUNY Binghamton Mathematics Colloquium, 2005.

University of New Brunswick Mathematics Colloquium, 2005.

Queen's University Operator Algebras Seminar, 2004.

AMS Sectional Meeting, Special Session on Topological Combinatorics, Binghamton, NY, 2003.

Several talks in Cornell University Combinatorics and Discrete Geometry seminar.

Several talks in University of Minnesota Combinatorics Seminar.

TEACHING EXPERIENCE

University of Minnesota 2006 to present

I was a lecturer for 3 upper-division undergraduate courses for which I had the following responsibilities: selecting a textbook, designing a curriculum, giving lectures, designing homework assignments, working with a homework grader, designing and grading exams.

Cryptology and Number Theory

The students were undergraduate math, economics, and computer science majors, as well as masters students in computer science.

Applied Linear Algebra

The students were math, economics, and computer science majors.

Introduction to Combinatorics and Graph Theory

The students were primarily math education majors. I also had several current high-school teachers who were enrolled as masters of education students.

Cornell University 2003 to 2006

I was a lecturer for 4 lower-division undergraduate courses for which I had the following responsibilities: giving lectures, assigning homework, working with an undergraduate grader, collaborating with other section lecturers to design and grade exams.

Calculus I (twice)

Calculus II

Finite Mathematics for the Life and Social Sciences

This course covered probability, statistics, combinatorics, and linear algebra.

Cornell University 2002 to 2003

I was a recitation instructor and grader for Finite Mathematics in the Life and Social Sciences, Calculus I, and Linear Algebra.

MENTORING

I advised two undergraduate senior theses at the University of Minnesota.

Steve Bastin, *The mathematics of searching the internet*, Spring 2007.

Alyssa Samways, *Alan Turing at Bletchley Park*, Fall 2008.

EXPOSITORY TALKS

NC State University SUM Series, *Buffon's noodle*, November 2008.

Carleton College Mathematics Colloquium, *Buffon's noodle*, September 2008.

University of Minnesota Jr. Combinatorics Seminar, *Coordinatizing a projective plane*, 2007.

Olivetti Club (graduate colloquium), Cornell University, *Euler's (other) constant*, 2006.

Received award for best talk of the semester (voted by graduate students).

PROFESSIONAL ACTIVITIES

Journals refereed: *Discrete Mathematics*, *Transactions of the AMS*.

University of Minnesota: Co-organizer of combinatorics seminar, with Igor Pak, 2008–2009.

AIM Workshop on Braid Groups, Clusters and Free Probability, Palo Alto, January 2005.

Recruited by the organizers to prepare a report on open problems.

Cornell University: Co-organizer of graduate student colloquium, 2003 and 2005.

REFERENCES

Louis Billera, Cornell University. (graduate advisor)

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Christian Krattenthaler, University of Vienna. (research reference)

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Lawrence Gray, University of Minnesota. (teaching reference)

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Victor Reiner, University of Minnesota. (postdoctoral mentor)

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Maria Terrell, Cornell University. (teaching reference)

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