

Anna S. Bertiger

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EDUCATION

Candidate for PhD Cornell University, Mathematics
Advisor: Allen Knutson

MS	Cornell University, Mathematics	2009
MA	UC San Diego, Mathematics	2008
SB	University of Chicago, Mathematics (with Honors)	2006

RESEARCH INTERESTS

- Schubert Calculus
- Algebraic Geometry
- Representation Theory
- Algebraic Combinatorics

PUBLICATIONS

- *Unions of Matrix Schubert Varieties*, in preparation
- *The Combinatorics of Differentiation*, with R. McEliece and S. Sweatlock, *Sequences and Their Applications-SETA 2008*, Lecture Notes in Computer Science 5203, 2008

INVITED TALKS AND CONFERENCE PRESENTATIONS

- *Workshop on Syzygies, Unions of Matrix Schubert Varieties*, November 2012; Cornell University, Ithaca, New York
- *Mathematical Society of Japan Seasonal Institute on Schubert Calculus Poster Session, Unions of Matrix Schubert Varieties*, July 2012; Osaka City University, Osaka, Japan
- *Binghampton University Combinatorics Seminar, The Combinatorics of the Action of the Symplectic Group on $\text{Flags}(\mathbb{C}^{2n})$* , April 2012; Binghampton University, Binghampton, New York
- *University of Michigan Graduate Student Combinatorics Seminar, The Combinatorics of the Action of the Symplectic Group on $\text{Flags}(\mathbb{C}^{2n})$* , March 2012; University of Michigan, Ann Arbor, Michigan
- *Joint Mathematics Meetings, Young Mathematicians Network Poster Session, Unions of Matrix Schubert Varieties*, January 2012; Boston, Massachusetts
- *AMS Sectional Meeting Wake Forest NC, Special Session on Combinatorial Algebraic Geometry, Unions of Matrix Schubert Varieties*, September 2011; Wake Forest University, Winston Salem, North Carolina
- *Cluster Algebras and Lusztig's Semicanonical Basis Workshop, Double Bruhat Cells*, June 2011; University of Oregon, Eugene, Oregon

SEMINAR LECTURES

- *Computational and Commutative Algebra Seminar*, Cornell University; Ithaca, New York
 - *Using the Fomin-Kirilov Algebra to Multiply Classes in $H^*(\mathcal{F}l\mathbb{C}^n)$: A Non-Commutative Solution to a Commutative Problem?*, September 2012
 - *Unions of Matrix Schubert Varieties*, September 2011
 - *Schubert Calculus and the Orthogonal Grassmannian*, April 2010
 - *Cohen Macaulay Rings*, April 2009
- *Discrete Geometry and Combinatorics Seminar*, Cornell University; Ithaca, New York
 - *The Combinatorics of the Action of the Symplectic Group on $\text{Flags}(\mathbb{C}^{2n})$*
 - *Symmetric Functions III*, October 2011

- **Berstein Seminar**, Cornell University; Ithaca, New York
 - *The Cohomology of Flags*(\mathbb{C}^n), April 2012
 - *Quantum Cohomology*, April 2012
 - *An Introduction to Schubert Calculus*, September 2009
- **Olivetti Seminar**, Cornell University; Ithaca, New York
 - *Super Schubert Calculus*, August 2010
 - *How to (almost) Get Rich Using Algebraic Geometry*, September 2009
 - *Formal Power Series Are Friends, Not Food*, October 2008
- **Food for Thought Seminar**, UC San Diego; San Diego, California
 - *Composing Formal Power Series*, January 2008
- **Toric Varieties Learning Seminar**, Cornell University; Ithaca, New York
 - *An Introduction to Toric Varieties*, September 2011
- **Teaching Seminar**, Cornell University; Ithaca, New York
 - *Discussion in Calculus Classes*, October 2010
 - *A Close Reading of the Academic Integrity Policy*, September 2009
 - *Grading Efficiently and Effectively*, February 2009

TEACHING EXPERIENCE

- **Instructor, Cornell University**
 - Calculus I, Fall 2012, Fall 2010, Spring 2010
 - Calculus II, Fall 2009
- **Teaching Assistant, Cornell University**
 - Computational Algebra, Spring 2012
 - Graduate Algebra, Fall 2011
 - Computational Algebra, Spring 2009
 - Calculus III for Engineers, Fall 2008
- **Teaching Assistant, UC San Diego**
 - Linear Algebra, Fall 2007, Spring 2008
 - Calculus III for Scientists and Engineers, Winter 2008, Spring 2007, Fall 2006
 - Mathematics for Computer Science (Combinatorics), Winter 2008
 - Calculus III, Winter 2007
- **Teaching Assistant, University of Chicago SESAME program**
 - Geometry for Middle School Teachers, Winter 2006
 - Number Theory, Spring 2006
- **Counselor, University of Chicago Young Scholars Program**
 - Seventh and Eighth Grade Number Theory Summer Program, Summer 2008

PROFESSIONAL SERVICE AND OUTREACH

- **Co-Organizer Toric Varieties Learning Seminar**; Cornell University; Fall 2011
- **Presenter and organizer of Center for Talented Youth Family Saturday Program Tilings Workshop and Co-Designer of Program Evaluation**; Cornell University; October 2011
- **Presenter at Family Saturday Program Tilings**; ScienCenter Museum Ithaca, New York; April 2011
- **Presenter at Center for Talented Youth Family Saturday Program Polytopes Workshop**; Cornell University; October 2010
- **Presenter at Expanding Your Horizons Conference Cracking the Incan Code Workshop**; Cornell University; April 2010
- **Organizer for the Olivetti Seminar** (Graduate Student Colloquium), Cornell University; Fall 2009
- **Presenter and organizer of Center for Talented Youth Family Saturday Program Tilings Workshop**; Cornell University; October 2009
- **Presenter at Expanding Your Horizons Conference The Secret of Nim Workshop**; Cornell University; April 2009
- **Organizer for the Food for Thought Seminar** (Graduate Student Colloquium), UC San Diego; 2007-2008

PROFESSIONAL MEMBERSHIPS

- American Mathematics Society
- Association for Women in Math

REFERENCES

Allen Knutson, Professor of Mathematics, Cornell University	allenk@math.cornell.edu
Tara Holm, Professor of Mathematics, Cornell University	tsh@math.cornell.edu
Elizabeth Beazley, Asst Professor of Mathematics, Haverford College	ebeazley@haverford.edu