

David J. Bruce

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Education B.S. in Honors Mathematics and Political Science April 2014
College of Literature, Science and the Arts GPA: 3.82/4.00
University of Michigan – Ann Arbor, MI

Publications David J. Bruce, Molly Logue, and Robert Walker. *Monomial valuations, cusp singularities, and continued fractions*. Submitted.

David J. Bruce, Pin-Hung Kao, Evan D. Nash, Ben Perez, and Pete Vermeire. *Betti tables of reducible algebraic curves*. Proc. Amer. Math. Soc. (to appear in print).

Research Presentations *The Resolution of Cusp Singularities and Its Relation to Continued Fraction Expansions*. Young Mathematicians Conference, The Ohio State University, August 11, 2013.

The Resolution of Cusp Singularities and Its Relation to Continued Fraction Expansions. REU Seminar, University of Michigan, July 31, 2013.

Betti Tables of Reducible Algebraic Curves. Presentation and Poster Session, Joint Mathematics Meetings, January 11, 2012.

Betti Tables of Reducible Algebraic Curves. REU Seminar, University of Michigan, August 29, 2012.

Betti Tables of Reducible Algebraic Curves. Summer Undergraduate Michigan Mathematics Research Conference, Michigan State University, July 23, 2012.

A Geometric Median in Banach Spaces and Applications to Robust PCA. REU Seminar, University of Michigan, August 31, 2011.

Expositional Presentations *Resolving Singularities*. Math Club, Department of Mathematics, University of Michigan, January 17, 2013.

Academic Integrity in the 21st Century. Panel Member, Department of Mathematics, University of Michigan, September 23, 2013.

How Big is Infinity?. Math Day, Brighton High School, May 9, 2013.

Research Experience University of Michigan REU Summer 2013
Research in Algebraic Geometry and Commutative Algebra
Advised by Professor Karen Smith

Central Michigan University REU Summer 2012
Research in Algebraic Geometry
Advised by Professor Pete Vermeire

University of Michigan REU Summer 2011
Research in Geometric Analysis
Advised by Professor Roman Vershynin

Teaching Experience	Course Assistant for Math 310: Explorations in Randomness	Jan 2014 – Present
	Volunteer for University of Michigan Math Circle	Oct 2011 – Present
	Course Assistant for Math 490: Introduction to Topology	Sep 2013 – Dec 2013
	Course Assistant for Michigan Math and Science Scholars	Jun 2013 – Jul 2013
	Course Assistant for Math 351: Principles of Analysis	Jan 2013 – Apr 2013
	Course Assistant for Math 105: Data, Functions, & Graphs	Sep 2012 – Apr 2013
	Tutor for University of Michigan Math Lab	Sep 2011 – Dec 2012
Awards and Honors	University Honors (U of M, 5 times)	Dec 2010 - May 2013
	James B. Angell Scholar (U of M)	May 2013
	Research Travel Scholarship (U of M Honors College)	Nov 2012
	MAA Student Travel Grant	Nov 2012
	M.S. Keeler Merit Scholarship (U of M Math Dept)	Apr 2012
	William J. Branstrom Freshman Prize (U of M)	Feb 2011
	Boy Scouts of America Eagle Scout	Dec 2009
Other Activities	Co-organizer for U of M Undergraduate Topics Seminar	Sep 2013 – Present
	President of Society of Undergrad Math Students	Sep 2013 – Present
	Founding Member of Society of Undergrad Math Students	Dec 2012 – Present
	Founding Member of Beta Theta Pi - Lambda Chapter	Dec 2010 – Present
	Participant AMS Short Course at Joint Math Meetings <i>Topic: Random Matrices</i>	Jan 2013
	Participant Undergrad Summer School at Notre Dame University <i>Topic Intro to Topological Invariants in Low Dimensions</i>	May 2012