



*Towards a Tropical Proof of the Gieseker-Petri Theorem*  
with V. Baratham, C. Mata, D. Nguyen and S. Parekh  
Collectanea Mathematica 65 (2014), 17-27.

*Stability of Second Hilbert Points of Canonical Curves*  
with M. Fedorchuk  
International Mathematics Research Notices (2012).

*Geometry of the Ball Quotient Model of the Moduli Space of Genus 4 Curves*  
with S. Casalaina-Martin and R. Laza  
Compact Moduli Spaces and Vector Bundles, Contemp. Math. 564 (2012).

*Rational Fibrations of  $\overline{M}_{5,1}$  and  $\overline{M}_{6,1}$*   
Journal of Pure and Applied Algebra 216 (2012), 633-642.

*Birational Contractions of  $\overline{M}_{3,1}$  and  $\overline{M}_{4,1}$*   
Transactions of the American Mathematical Society 365 (2013), 2863-2879.

*Completions of UFDs with Semi-Local Formal Fibers*  
Communications in Algebra, 34, 347-360 (2006).

*Controlling Formal Fibers of Principal Prime Ideals*  
with A. Dundon, S. Loepp, J. Provine, and J. Rodu  
Rocky Mountain Journal of Mathematics, 37, 1871-1891 (2007).

HONORS AND AWARDS	AMS Simons Travel Grant	Fall 2013 - Fall 2015
	NSF Research Training Grant Fellowship	Spring 2008
	Frank Gerth III Graduate Excellence Award	Fall 2005
	Rosenberg Prize for Excellence in Mathematics	Spring 2004

SERVICE AND OUTREACH	Mentor for Summer Undergraduate Math Research at Yale	Summer 2014
	Department Liaison to the Yale Undergraduate Math Society	Fall 2013 and Spring 2014
	US Based Organizer for Géométrie Algébrique en Liberté	Spring 2013
	Coordinator of Undergraduate Research Group on Tropical Geometry	Spring 2012
	Speaker for Brookhaven National Labs Gifted Math Program	Spring and Fall 2012
	Faculty Sponsor of the Stony Brook Slack-Line Club	Fall 2011 and Spring 2012
	Organizer of Academic Job Search Panel	Spring 2010
	Organizer of Saturday Morning Math Group/Austin Math Circle	Spring and Fall 2009
	Observer for Inquiry-Based Learning Mathematics Project	Fall 2008 and Spring 2009
	Volunteer for Explore UT Day (college-wide open house)	Spring 2008 and Spring 2009
	Developer and Organizer of Introduction to Algebraic Geometry Seminar	Fall 2007
	Inaugural Speaker for UT Math Club	Fall 2007
	Mentor (with tenure) at Canada/USA Mathcamp	Summer 2007
	Mentor for Intellectual Entrepreneurship Pre-Grad Internship	Spring 2007 and Fall 2008
	Organizer of Sophomore Exploratory Seminar	Spring and Fall 2006
Referee for Contemp. Math., Math Research Letters, Crelle, Journal of Algebraic Combinatorics, Advances in Geometry	Spring 2007 - Fall 2014	

INVITED LECTURE SERIES	<i>Moduli Spaces of Curves and Their Birational Geometry</i> Summer School on Algebraic Geometry, Yangyang, South Korea	June 2012
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INVITED  
TALKS

- *Gonality of Random Graphs*  
University of Tennessee September 2014  
Fordham University July 2014
- *Tropical Brill-Noether Theory and the Gieseker-Petri Theorem*  
Emory University October 2014  
The Ohio State University April 2014  
Harvard University April 2014  
Banff International Research Station, Canada March 2014  
Yale University October 2013
- *A Non-Reductive Approach to the Effective Cone of  $\overline{M}_{0,n}$*   
Courant Institute September 2013  
Conference on Moduli and Birational Geometry, Pohang, South Korea August 2013
- *Hassett-Keel Program in Genus Four*  
University of Georgia March 2013  
Oklahoma State University February 2013  
University of Kentucky January 2013  
University of South Carolina January 2013  
American Institute of Mathematics December 2012  
The Ohio State University December 2012  
Columbia University November 2012  
Princeton University October 2012  
Stony Brook University April 2012  
Workshop on Moduli and Birational Geometry, Gyeongju, South Korea July 2011
- *Flips Between Compactifications of  $M_{0,n}$*   
Boston College April 2013  
University of Texas September 2012  
Rice University September 2012  
Yale University September 2012  
University of Georgia January 2012  
University of Massachusetts, Amherst October 2011
- *Curves, Chip Firing, and Catalan Numbers*  
Fordham University July 2014  
Washington and Lee University February 2013
- *Towards a Tropical Proof of the Gieseker-Petri Theorem*  
University of Colorado Colloquium November 2012  
Simons Postdoctoral Fellows Meeting April 2012
- *Beyond the Boundary: Log Minimal Models for the Moduli Space of Curves*  
University of Colorado November 2012  
Joint Mathematics Meetings, Special Session on Algebraic Geometry January 2011  
Stony Brook University September 2010
- *Rational Fibrations of  $\overline{M}_{g,1}$*   
Workshop on Moduli and Birational Geometry, Busan, South Korea July 2012  
Brown University March 2011  
Rice University April 2010  
University of Texas October 2009  
Texas A & M University March 2009

TEACHING  
EXPERIENCE

**Classes Taught at University of Kentucky**

- Introduction to Algebraic Geometry Spring 2015
- Calculus IV Fall 2014
- Introduction to Number Theory Fall 2013

**Classes Taught at Yale University**

- Calculus I Spring 2014
- Algebraic Curves and Linear Series Fall 2013

### **Classes Taught at Stony Brook University**

- Graduate Problem Seminar Fall 2011 and 2012
- Differential Equations with Linear Algebra Spring 2012
- Logic, Language and Proof Fall 2011
- Mathematical Puzzles and Games Spring 2011
- Introduction to Mathematical Thinking Spring 2011
- Calculus B Spring 2013 and Fall 2010

### **Assistant Instructor Positions Held at the University of Texas**

- Saturday Morning Math Group and Austin Math Circle Spring and Fall 2009
- Foundations of Arithmetic Fall 2008

### **Teaching Assistant Positions Held at the University of Texas**

- Discrete Mathematics Summer 2009 and 2008
- Introduction to Statistical and Scientific Computation Fall 2007
- Differential Equations Spring and Fall 2006
- Differential and Integral Calculus Fall 2005 and Summer 2006
- Integral Calculus Fall 2004 and Spring 2005

### **Grading Positions Held at the University of Texas**

- Graduate Algebra Spring 2007
- Real Analysis Summer 2007

### **Classes Taught at Canada/USA Mathcamp**

Summer 2007

- Algebraic Geometry
- Nonstandard Analysis
- Mathematics of Juggling
- Mathematics of Elections
- Constructible or Not?
- How to Win the Finite Group Game