

Jeff Poskin

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EDUCATION

University of Wisconsin - Madison, Madison, Wisconsin

- Doctor of Philosophy (Ph.D.) in Mathematics Aug 2011 – May 2017 (expected)
 - Advisor: Professor Alberto Del Pia
 - Research areas: Integer Programming, Optimization, Real Algebraic Geometry.

University of Kansas, Lawrence, Kansas

- Bachelor of Science (B.S.) in Mathematics Aug 2008 – May 2011
 - Major GPA: 3.92 / 4.00

RESEARCH EXPERIENCE

University of Wisconsin - Madison, Madison, Wisconsin

- PhD Researcher Aug 2011 – Present
 - Investigating representability results in Mixed Integer Quadratic Programming

University of Kansas, Lawrence, Kansas

- Undergraduate Researcher May 2010 – Aug 2010
 - Supervisor: Atanas Stefanov
 - Research area: Functional Analysis

LEADERSHIP EXPERIENCE

Collaborative Undergraduate Research Lab, Madison, Wisconsin

- Undergraduate Mentor May 2016 – Aug 2016
 - Mentored four undergraduate students in individual research projects focused in applied linear algebra
 - Designed individual projects for undergraduate research
 - Led weekly group presentation meetings

TA Evaluation / TA Policy and Procedure Committee, Madison, Wisconsin

- Student Member Aug 2014 – May 2015
 - Supervised new teaching assistants in the math department
 - Evaluated TA performance through review of end of semester student evaluations
 - Designed new TA duties list with current math faculty

Midwest Algebraic Geometry Graduate Student Conference, University of Wisconsin - Madison

- Co-organizer Nov 2012

TEACHING EXPERIENCE

Institute for Mathematics and its Applications, Minneapolis, Minnesota

- Short Course Teaching Assistant Aug 2016
 - Selected as TA for a New Directions short course on Optimization
 - Managed daily problem sessions and presented solutions to a group of 30-40 participants

University of Wisconsin - Madison, Madison, Wisconsin

- Mathematics Department Teaching Assistant Aug 2011 – May 2016

Led discussion sections, wrote and graded quizzes/homework and held office hours. Received 'Superior' TA evaluation (highest evaluation at UW-Madison) five different semesters.

- Fall 2011, TA, Math 222: Calculus II
- Spring 2012, Lecturer, Math 131: Math for Teaching: Geometry and Measurement
- Fall 2012, Lecturer, Math 130: Math for Teaching: Numbers and Operations
- Fall 2013, TA Coordinator, Math 221: Calculus I
- Spring 2014, TA, Math 341: Linear Algebra
- Summer 2014, Lecturer, Math 131: Geometry and Measurement
- Fall 2014, TA Coordinator, Math 221: Calculus I
- Spring 2015, TA, Math 341: Linear Algebra
- Fall 2015, TA Coordinator, Math 221: Calculus I
- Spring 2016, Course Assistant, Math 490: NSF sponsored CURL (Collaborative Undergraduate Research Lab)

TALKS

CONFERENCE TALKS

- **INFORMS 2016**, Nashville Tennessee, *Ellipsoidal Mixed-Integer Representability*, November 2016
- **IPCO 2016**, University of Liège, *On the Mixed Binary Representability of Ellipsoidal Regions*, June 2016
- **Applied Algebra Days 3**, University of Wisconsin - Madison, *Ellipsoidal Mixed-Integer Representability*, April 2016

UNIVERSITY OF WISCONSIN SEMINAR TALKS

- **Hilbert's Syzygy Theorem**, Graduate Algebraic Geometry Seminar, Spring 2013
- **Counting Lattice Points in Polytopes**, Graduate Singularities Seminar, Spring 2013
- **Wielandt's Automorphism Tower Theorem**, Group Theory Seminar, Fall 2012

OTHER CONFERENCES ATTENDED

- **New Directions Short Course: Mathematical Optimization**, Institute for Mathematics and its Applications, Minneapolis MN, August 2016
- **Summer School on Real Algebraic Geometry and Optimization**, Georgia Institute of Technology, Atlanta GA, July 2016
- **Mixed Integer Programming Workshop**, University of Miami, Coral Gables FL, May 2016
- **Macaulay2 Workshop**, Boise State University, Boise ID, May 2015
- **Mathematics of Communications: Sequences, Codes, and Designs**, Banff International Research Station, Banff Alberta, January 2015
- **Motivic Invariants and Singularities Thematic Program**, University of Notre Dame, South Bend IN, June 2013
- **Graduate Student Workshop on Moduli Spaces and Bridgeland Stability**, University of Illinois - Chicago, Chicago IL, March 2013
- **IMA Summer Graduate Student Program on Algebraic Geometry for Applications**, Georgia Institute of Technology, Atlanta GA, July 2012

PUBLICATIONS

ACCEPTED AND PUBLISHED PAPERS

- [1] A. Del Pia and J. Poskin, "On the Mixed Binary Representability of Ellipsoidal Regions", in *Proceedings of IPCO 2016*, LNCS 9682 214-225 (2016).

MANUSCRIPTS

- [2] A. Del Pia and J. Poskin, "Mixed Binary Convex Quadratic Representable Sets", *Manuscript* (2017).
- [3] A. Del Pia and J. Poskin, "Ellipsoidal Mixed-Integer Representability", *Mathematical Programming, Series B*, submitted (2016).

AWARDS AND HONORS

- Math Department TA Teaching Award, University of Wisconsin - Madison, Spring 2014
- University of Kansas, Charles H. Ashton Memorial - Wealthy Babcock Math Scholarship,
- First Place, 2011 Kansas Collegiate Mathematics Competition
- Putnam Competition: 2009 score: 30, 91st percentile; 2010 score: 40, 91st percentile

SKILLS

MATLAB, Python, AMPL, Macaulay2, Magma.

INTERESTS

Ultimate Frisbee, climbing, running.