

Dr. Jason Polak

Email: jpolak@jpolak.org

Website: jpolak.org

Publications

1. “The Ring Structure on the Grothendieck Group of Commuting Endomorphisms over a Field”, Submitted 2017-08-31.
2. “The Polypermutation Group of an Associative Ring”, Submitted 2017-07-02.
3. “Counting Separable Polynomials in $\mathbb{Z}/n[x]$ ”. Accepted for publication in the Canadian Mathematical Bulletin on March 1, 2017.
4. “A Cotriple Construction of a Simplicial Algebra Used in the Definition of Higher Chow Groups”. *Theory and Applications of Categories*. Vol. 31, No. 13 (2016), pp. 384-387
5. “Exposing Relative Endoscopy in Unitary Symmetric Spaces”. *Research in the Mathematical Sciences*. Vol. 2, No. 1 (2015). [arXiv/1412.6193](https://arxiv.org/abs/1412.6193)
6. (with Daniel T. Wise) “A note on $\mathcal{V}H$ -subdivisions”. *Publicacions Matemàtiques* 57.2 (2013) 421-428. [arXiv/1310.0843](https://arxiv.org/abs/1310.0843)

Education and Academic Positions

- 2016 - 2018: Postdoctoral fellow (University of Melbourne, Australia)
- 2016: Ph.D. Mathematics (Under Jayce R. Getz at McGill University, Canada)
- 2011: M.Sc. Mathematics (Under Daniel T. Wise at McGill University, Canada)
- 2009: B.Sc. Honours Mathematics *Magna Cum Laude* (University of Ottawa, Canada),

Computer Skills

- Operating systems: Linux, OS X, Windows
- Programming: Python, Sage, JavaScript, C, R, Git

Awards, Scholarships, and Fellowships

- 2016: Alexis D. and W. Charles Pelletier Fellowship for Outstanding Doctoral Research (\$6040.97)
- 2016: Honourable Mention for the McGill Math Teaching Assistant Award
- 2015: ISM Mathematics Scholarship (\$2500)
- 2014: ISM Mathematics Scholarship (\$7000)

- 2007: NSERC Undergraduate Student Research Award (\$6000)
- 2007: Linis Mathematics Scholarship (\$500)
- 2006: NSERC Undergraduate Student Research Award (\$5000)
- 2006: Linis Mathematics Scholarship (\$600)
- 2005: Linis Mathematics Scholarship (\$600)
- 2004: University of Ottawa Entrance Scholarship (\$8000)
- 2003: Canada's Governor General's Bronze Medal

Invited Talks

- “Counting Separable Polynomials in $\mathbb{Z}/n[x]$ ”: 2017-03-03 (University of Melbourne Pure Math Colloquium)
- “Beginnings of Relative Endoscopy”: 2015-11-20 (Junior Number Theory Days)
- “Exposing Relative Endoscopy in Unitary Symmetric Spaces”
 - 2014-11-13: Duke University
 - 2014-11-08: AMS 1105 Special Session in Automorphic Forms

Conferences Attended

An asterisk (*) indicates that I gave a talk.

- *March 7-10, 2016: 30th Automorphic Forms Workshop (Winston-Salem (NC), United States)
- *November 30-December 4, 2015: Automorphic kernel functions (San Jose (CA), United States)
- *November 20-21, 2015: Junior Number Theory Days (Newark (NJ), United States)
- October 10-11, 2015: Montreal-Toronto Workshop in Number Theory (Montreal (QC), Canada)
- May 7-10, 2015: Workshop on Representation Theory and Analysis on Lie Groups over Local Fields (Ottawa (ON), Canada)
- *November 8-9, 2014: Special Session on Automorphic Forms and Related Topics (Greensboro (NC), United States)
- May 23-26, 2014: Algebraic and Geometric Invariants of Linear Algebraic Groups and Homogeneous Spaces (Ottawa (ON), Canada)
- November 23-24, 2013: Montreal-Toronto Workshop in Number Theory (Toronto (ON), Canada)
- October 15-18, 2012: Fundamentals of the Langlands Program (Toronto (ON), Canada)
- May 29-June 2, 2012: Cohomologies and Automorphic Forms (Strasbourg, France)

Teaching Experience

I was a teaching assistant in the following classes. The duties were teaching problem solving sessions one or two times per week, answering questions during weekly office hours, and marking assignments and exams. I received excellent teaching reviews in these courses.

- Fall 2015: Algebra I
- Fall 2014: Calculus I
- Fall 2013: Algebra I (An introduction to abstract algebra)
- Winter 2013: Linear Algebra
- Winter 2012: Calculus II (Integration and Infinite Series)
- Fall 2012: Calculus I (Differentiation)
- Fall 2011: Linear Algebra

Professional Activities

- Reviewer for Zentralblatt paper review service
- Reviewer for an internationally recognized peer-reviewed mathematics journal
- Math blogger: 200+ expository articles on math, hundreds of hits per day

Other Interests

- Photography
- Birdwatching (currently 293 Australian Birds)
- Ballroom dancing
- Chess
- Piano