

# Jifeng Shen

## Curriculum Vitae

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### Education

- 2012–2017 **Ph.D in Mathematics**, *Yale University*, New Haven, USA, Advisor: Sam Payne.  
(expected) Thesis: Topology and Geometry of Tropical and non-Archimedean Abelian Varieties
- 2009–2012 **Bachelor of Arts & Sciences**, *McGill University*, Montreal, Canada.  
Joint-Honours Mathematics and Philosophy

### Research Interests

Algebraic Geometry, topology, and combinatorics. Specifically topology of tropical and non-Archimedean varieties, and degenerations of abelian varieties.

### Awards

- 2013 NSERC Alexander Graham Bell Fellowship (PGS M)
- 2012–2014 Bourse de maîtrise en recherche du FRQNT (B1)
- 2011 NSERC Undergraduate Summer Research Award
- 2010 ISM Undergraduate Summer Scholarship

### Papers in Preparation

- 2016 *Lefschetz Hyperplane Theorem for non-Archimedean Jacobians*
- 2016 *Compactified Jacobians and Break Divisors*

### Talks and Posters

#### Research Talks

- Mar. 2016 *Compactified Jacobians and Break Divisors*, AMS Spring Southeastern Sectional Meeting, University of Georgia, Athens, USA.
- Dec. 2015 *Compactified Jacobians and Break Divisors*, Post-Doc Algebraic Geometry Seminar, University of Michigan, Ann Arbor, USA.
- Nov. 2015 *Compactifying the Néron Model and Break Divisors*, Algebraic Geometry Seminar, Yale University, New Haven, USA.
- Aug. 2015 *Lefschetz for Tropical Abelian Varieties*, Algebraic Geometry Seminar, University of Saarland, Saarbrücken, Germany.
- Apr. 2015 *Lefschetz for Tropical Abelian Varieties*, STAGS, Brown University, Providence, USA.

Mar. 2015 *Lefschetz for Tropical Abelian Varieties*, Algebraic Geometry Seminar, Yale University, New Haven, USA.

#### Posters

Oct. 2015 *Lefschetz for Tropical Abelian Varieties*, AGNES, Brown University, Providence, USA.

Jul. 2015 *Lefschetz for Tropical Abelian Varieties*, AMS Summer Institute in Algebraic Geometry, University of Utah, Salt Lake City, USA.

#### Expository Talks

Dec. 2015 *Characteristic Polynomials of Hyperplane Arrangements*, Bi-annual Algebraic and Tropical Meetings of Brown and Yale, Yale University, New Haven, USA.

Nov. 2014 *Lefschetz Hyperplane Theorem and Morse Theory*, Graduate Student Seminar, Yale University, New Haven, USA.

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### Selected Workshops

Jul. 2016 *MSRI Summer Graduate Workshop on Chip Firing and Tropical Curves*, MSRI, USA.

May. 2016 *Algebraic, Tropical, and Nonarchimedean Analytic Geometry of Moduli Spaces*, Casa Matemática Oaxaca, Mexico.

Jul. 2015 *Summer Institute in Algebraic Geometry*, University of Utah, USA.

Jun. 2015 *Non-Archimedean Geometry and Applications*, University of Michigan, Ann Arbor, USA.

May. 2015 *Tropical Geometry in the Tropics*, IMPA, Brazil.

Jul. 2014 *Graduate Workshop on Moduli of Curves*, SUNY Stony Brook, USA.

May. 2014 *Workshop on algebraic foundations for tropical geometry*, Yale University.

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### Teaching Experience

2016 Instructor, Calculus of Functions in One Variable, Yale University

2015 Supervisor, Undergraduate Directed Reading Course, Yale University

2015 Instructor, Calculus of Functions in One Variable, Yale University

2013 Summer Undergraduate Research Supervisor (with Prof. Sam Payne), Yale University

2013 Teaching Assistant, Linear Algebra with Applications, Yale University

2011 Grader, Honours Advanced Calculus, McGill University

2011 Peer Tutor, Math Helpdesk, McGill University

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### Conferences and Seminars Organized

2013–2014 **Main Organizer**, *Graduate Student Seminar*, Yale University.

2010–2011 **Chair**, *Seminars in Undergraduate Mathematics in Montreal*, Montreal.