### Keyvan Yaghmayi

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#### Education

2017 **Ph.D.** in Mathematics, University of Utah

Thesis: On the Topology of Berkovich Spaces

Advisor: Tommaso de Fernex

2011 M.Sc. in Mathematics, Sharif University of Technology

Thesis: Tropical Algebraic Geometry

Advisor: Arash Rastegar

2008 **B.Sc.** in Mathematics, Sharif University of Technology

#### Research Interests

Algebraic Geometry, Berkovich Spaces, Tropical Mathematics, Digital Image Processing.

### Publications and Preprints

- [1] Keyvan Yaghmayi. Geometry over the Tropical Dual Numbers, 2016, submitted to manuscripta mathematica, preprint: https://arxiv.org/abs/1611.05508.
- [2] Tommaso de Fernex, Lorenzo Fantini, Keyvan Yaghmayi. On the Topology of Berkovich Spaces, 2017, under preparation.

#### Presentations

- 1. Invariant Theory of Finite Groups, Student Algebraic Geometry Seminar, University of Utah, November 2015.
- 2. Cubical Hyperresolutions, Student Seminar on Hodge Theory, Mentored by Professor Y.P. Lee, Fall 2015.
- 3. Mixed Hodge Structure on Smooth Complex Varieties, Student Seminar on Hodge Theory, Mentored by Professor Y.P. Lee, Spring 2015.
- 4. Introduction to Berkovich Spaces, Utah Tropical Geometry Conference, University of Utah, May 2014.
- 5. Some Basic Facts About Berkovich Spaces, Student Tropical Algebraic Geometry Seminar, Yale University, May 2014.
- 6. An Introduction to Tropical Mathematics, Graduate Colloquium, University of Utah, October 2012.

### Awards and Fellowships

Fall 2016	Supported by Professor de Fernex' FRG Grant.
Spring 2015	Supported by Professor Schwede's FRG Grant.
Spring 2014	Supported by Professor de Fernex' FRG Grant.
2011-2017	Teaching Fellowship, University of Utah.
2008-2010	Graduate Student Tuition Fellowship, Sharif University of Technology.

### Research Workshops and Seminars

- 1. Western Algebraic Geometry Symposium, Colorado State University, October 2016.
- 2. Summer Graduate School: Chip Firing and Tropical Curves, MSRI, July-August 2016.
- 3. Higher Dimensional Algebraic Geometry Summer School, University of Utah, July 2016.
- 4. Student Tropical Algebraic Geometry Seminar 3, Yale University, June 2016.
- 5. AMS Spring Western Sectional Meeting, University of Utah, April 2016.
- 6. Unramified Cohomology, Derived Categories, and Rationality, University of Utah, February 2016.
- 7. Western Algebraic Geometry Symposium, University of Washington, October 2015.
- 8. AMS Summer Institute in Algebraic Geometry, University of Utah, July 2015.
- 9. Graduate Student Bootcamp for AMS Summer Institute in Algebraic Geometry, University of Utah, July 2015.
- 10. Non-Archimedean Geometry and its Applications, University of Michigan, June 2015.
- 11. Student Tropical Algebraic Geometry Seminar 2, Brown University, April 2015.
- 12. Foliations with Effective Anti-canonical Bundle, University of Utah, December 2014.
- 13. Student Tropical Algebraic Geometry Seminar, Yale University, May 2014.
- 14. Western Algebraic Geometry Symposium, University of Colorado at Boulder, April 2014.
- 15. Mini-Workshop on Cremona Groups, University of Utah, November 2013.
- 16. Western Algebraic Geometry Symposium, UC San Diego, November 2013.
- 17. Thematic Program on Motivic Invariants and Singularities, University of Notre Dame, May-June 2013.
- 18. The Commutative Algebra of Singularities in Birational Geometry: Multiplier Ideals, Jets, Valuations, and Positive Characteristic Methods, MSRI, May 2013.
- 19. Western Algebraic Geometry Symposium, University of Utah, October 2012.

# Teaching Experience

- 1. Differential Equations and Linear Algebra (Math 2250), University of Utah, Summer 2017
- 2. Calculus III (Math 2210), University of Utah, Spring 2017.
- 3. Calculus II (Math 1220), University of Utah, Summer 2016.
- 4. TA for Calculus II (Math 1220), University of Utah, Spring 2016.
- 5. Calculus I (Math 1210), University of Utah, Fall 2015.
- 6. Trigonometry (Math 1060), University of Utah, Summer 2015.

- 7. Calculus I (Math 1210), University of Utah, Fall 2014.
- 8. Trigonometry (Math 1060), University of Utah, Fall 2013.
- 9. College Algebra (Math 1090), University of Utah, Spring 2013.
- 10. Quantitative Analysis (Math 1100), University of Utah, Fall 2012.
- 11. TA for Mathematics for Engineering (PDEs and Complex Analysis), Sharif University of Technology, Fall 2008 Spring 2011 (Seven Semesters).
- 12. TA for Ordinary Differential Equations, Sharif University of Technology, Fall 2008.

### Teaching Workshops and Seminars

- 1. Gender and Sexuality Workshop, University of Utah, November-December 2016.
- 2. Graduate Student Teaching Seminar, Organized by Kelly MacArthur and Maggie Cummings, University of Utah, Fall 2016.
- 3. Maximizing the Effectiveness of Student Course Feedback Workshop, University of Utah, November 2013.
- 4. Annual Teaching Symposium, University of Utah, August 2013.
- 5. Veterans in the Classroom, University of Utah, April 2013.
- 6. Responding to L2 Writing, University of Utah, February 2013.
- 7. International Teaching Assistant Seminar, Organized by Diane Cotsonas, University of Utah, Fall 2012.
- 8. Annual Teaching Symposium, University of Utah, August 2012.
- 9. New TA Teaching Workshop, Department of Mathematics, University of Utah, August 2012.

Reviewer Zentralblatt Math (zbMATH), reviewer since 2016

Service:

Professional American Mathematics Society

Affiliations:

Computer Matlab, Maple, Mathematica, Java, LATEX, MS Excel

Skills:

## References

#### Research Area:

- 1. Professor Tommaso de Fernex. Email: defernex@math.utah.edu. Phone: 801-581-7121.
- 2. Professor Aaron Bertram. Email: bertram@math.utah.edu. Phone: 801-581-6964.
- 3. Professor Yuan-Pin Lee. Email: yplee@math.utah.edu. Phone: 801-581-5275.

#### Teaching Area:

- 4. Professor Kelly MacArthur. Email: macarthur@math.utah.edu. Phone: 501-581-6567.
- 5. Professor Nathan Smale. Email: smale@math.utah.edu. Phone: 801-581-6567.