Andrew O’Desky

Contact Information
Email: aodesky@umich.edu  Website: http://umich.edu/~aodesky
Mobile: +1-419-967-1121  Skype: aodesky

Research Interests
Arithmetic geometry, rational points on varieties

Education
University of Michigan, Ann Arbor
Ph.D. in Mathematics (2020)
Advised by Michael Zieve

Case Western Reserve University
Bachelor of Science in Mathematics and Physics (2014)
Honors: magna cum laude

Employment
LEO Lecturer I
University of Michigan, Ann Arbor, MI
August 2020–December 2020

Publications
1. Super vertex algebras, meromorphic Jacobi forms and Umbral Moonshine
with John F. R. Duncan
Journal of Algebra 515 (2018), 389–407

2. Minimal flag triangulations of lower-dimensional manifolds
with Christin Bibby, Mengmeng Wang, Shuyang Wang, Ziyi Zhang, Hailun Zheng
Involve: a Journal of Mathematics (2020), to appear

Preprints
1. Functions with integral divided differences
Under review (2020)

2. The moduli space of $G$-algebras
with Julian Rosen. Submitted (2020)

3. On the orbits of rational functions
with Michael Zieve. In preparation
Preprints

4. Cyclotomic factors of necklace polynomials and unlikely evaluations
   with Trevor Hyde. In preparation

5. $p$-adic derangements
   with Harry Richman. In preparation

Teaching

Calculus II (M116), Primary Instructor, University of Michigan
- Winter semester 2015, Winter semester 2016, Fall semester 2016,
- Winter semester 2017, Fall semester 2017, Fall semester 2018,
- Winter semester 2020

Calculus I (M115), Primary Instructor, University of Michigan
- Fall semester 2014, Fall semester 2020 (two sections)

Differential Equations (M216), Lab Instructor, University of Michigan
- Fall semester 2015, Summer semester 2016

Service

SAGE Development, Saint Louis University, Fall 2019
- Participated in a workshop developing SageMath tools for dynamical systems.

Lab of Geometry Mentor, University of Michigan, Winter Semester 2019
- Mentored three undergraduates doing research in combinatorial geometry.

SIAM Student Conference, University of Michigan, April 2015
- Co-organized a multi-disciplinary applied mathematics conference.

Vice-President of SIAM Student Chapter, University of Michigan, 2014–2015

Presentations

Counting points on varieties and Malle's conjecture (November 13, 2019)
- Automorphic Forms and Number Theory Seminar
- University of Minnesota, Twin Cities, Minneapolis, MN

Characterizing polynomial sequences in $p$-adic interpolation (September 14, 2019)
- AMS Fall Central Sectional Meeting
- University of Wisconsin-Madison, Madison, WI
Presentations

Characterizing polynomial sequences in $p$-adic interpolation (May 21, 2019)
Combinatorial and Additive Number Theory
CUNY Graduate Center, New York, NY

Generalized prime counting functions and $p$-adic interpolation (February 4, 2019)
Group, Lie and Number Theory Seminar
University of Michigan, Ann Arbor, MI

Scholarships and Grants

Summer Research Grant (4,500 USD)
Department of Mathematics, University of Michigan, Summer semester 2019

Rackham One-Term Dissertation Fellow (10,200 USD)
Rackham Graduate School, University of Michigan, Winter semester 2018

Case Alumni Association Scholarship (6,400 USD)
Case Western Reserve University, 2012–2013

Merit Scholarship (20,000 USD)
College of Arts and Sciences, Case Western Reserve University, 2012–2014