

101 Van Vleck Hall, Desk #23
480 Lincoln Dr
Madison, WI 53706

Alex Hof

<https://people.math.wisc.edu/~aohof/>
aohof@wisc.edu

EDUCATION

University of Wisconsin-Madison, Madison, WI
Ph.D. – Mathematics

May 2023 (expected)

Pomona College, Claremont, CA
Bachelor of Arts, Magna Cum Laude – Double Major in Mathematics and Computer Science

May 2018

PAPERS

- A. Hof, J. Shade, W. Whiting, *Solvable Leibniz algebras with quasi-filiform split Lie nilradical*, Uzbek Mathematical Journal No. 3 (2017) 159-168.

TALKS

- “Milnor Fiber Consistency via Flatness,” Iberoamerican Webminar of Young Researchers in Singularity Theory, Madrid (June 2022), 1 hr.
- “Consistency of Milnor Fibers for Deformations of Arbitrary-Dimensional Hypersurface Singularities,” UW-Madison Topology and Singularities Seminar, Madison (May 2022), 1 hr.
- “Geometric Intuitions for Flatness,” UW-Madison Graduate Algebraic Geometry Seminar, Madison (April 2022), 1 hr.
- “An Introduction to the Deformation Theory of Complete Intersection Singularities,” UW-Madison Graduate Algebraic Geometry Seminar, Madison (March 2021), 1 hr.
- “Embrace the Singularity: An Introduction to Stratified Morse Theory,” UW-Madison Graduate Algebraic Geometry Seminar, Madison (April 2020), 1 hr.
- “Tropicalization Blues,” UW-Madison Graduate Algebraic Geometry Seminar, Madison (November 2019), 1 hr.
- “Kindergarten GAGA,” UW-Madison Graduate Algebraic Geometry Seminar, Madison (April 2019), 1 hr.
- “Classification of solvable Leibniz algebras with naturally graded, quasifiliform Lie nilradicals,” special session, Amer. Math. Soc., Riverside (November 2017), 20 min.
- “Special chain partitions of the normalized matching posets,” The Algebra/Number Theory/Combinatorics Seminar of the Claremont Colleges, Claremont, (November 2017), 40 min.

RESEARCH EXPERIENCE

- **Research Assistantship** with Laurentiu Maxim at UW-Madison, Fall 2021 – Spring 2022.
- **USA-Uzbekistan Collaborative Research in Leibniz Algebras** IRES program at the Institute of Mathematics of the Uzbekistan Academy of Sciences in partnership with CSU-Fullerton, Summer 2017.
- **Mathematics Research Circle in Combinatorics** at Pomona College, Spring 2016.

TEACHING EXPERIENCE

- **Geometry/Topology SEP (Qual Prep Course)** Teacher, UW-Madison Summer 2021
- **Calculus III** Teaching Assistant, UW-Madison Spring 2019 – Spring 2021
- **Calculus II** Teaching Assistant, UW-Madison Fall 2018
- **Discrete Mathematics and Functional Programming** Teaching Assistant, Pomona College Spring 2018
- **Discrete Mathematics** Head Teaching Assistant, Pomona College Spring 2017

OUTREACH AND SERVICE

- **Graduate Program Committee** Member, UW-Madison Math. Dept. Fall 2020 – Present
- **Committee for TA Policies and Procedures** Member, UW-Madison Math. Dept. Fall 2020 – Present
- **Mega Math Meet** Problem Developer, UW-Madison Math. Dept. Spring 2022
- **Mega Math Meet** Grader, UW-Madison Math. Dept. Spring 2019, Spring 2022
- **Math Department Virtual Ice Cream Social** Organizer, Self-Appointed Fall 2020 – Spring 2021
- **Graduate Peer Mentor Program** Organizer, UW-Madison Math. Dept. Summer 2020
- **Graduate Peer Mentor Program** Mentor, UW-Madison Math. Dept. Fall 2019 – Fall 2021
- **Graduate Representative Association for Mathematics Students** Member, UW-Madison Math. Dept. 2019

AWARDS AND HONORS

- **Outstanding TA Award**, UW-Madison Mathematics Department Fall 2020 – Spring 2021
- **Physical Sciences Award**, UW-Madison Mathematics Department Fall 2018 – Spring 2019

- **Hugh J. Hamilton Prize**, Pomona College Department of Mathematics **Spring 2018**
- **Bruce Jay Levy Prize in Mathematics**, Pomona College Department of Mathematics **Fall 2017**
- **Llewellyn Bixby Mathematics Prize**, Pomona College Department of Mathematics **Fall 2016**
- **Distinction in Senior Exercise**, Pomona College Department of Computer Science **Spring 2018**
- **Tileston Physics Prize**, Pomona College Department of Physics and Astronomy **Fall 2015**
- **Mudge Latin Prize**, Pomona College Department of Classics **Fall 2017**
- **Phi Beta Kappa Member** **Fall 2017**
- **Pomona College Scholar** **Fall 2014 – Spring 2016, Spring 2017**