Travis Scholl

University of Washington
Department of Mathematics
Seattle, WA 98195, USA

schollt@uci.edu
https://tscholl2.github.io/website/
U.S. Citizen
Last Updated: October 12, 2018

Research Interests

- Computational number theory
- Elliptic curve cryptography

Education

2018 Ph.D. Mathematics, University of Washington (advisor: Neal Koblitz)
2013 B.S. Mathematics, University of Oregon

Publications

1. Isolated elliptic curves and the MOV attack. Accepted for publication in *Journal of Mathematical Cryptology*. https://doi.org/10.1515/jmc-2016-0053.
2. Super-Isolated Elliptic Curves and Abelian Surfaces in Cryptography. Accepted for publication in *Experimental Mathematics*. https://doi.org/10.1080/10586458.2017.1412371.
3. Abelian Varieties with Small Isogeny Class and Applications to Cryptography Ph.D. Thesis. 2018.

Research Talks

2018 Jun. Communicating Mathematics Effectively, University of Oregon
2018 Feb. Computer Science Theory Seminar, University of Pennsylvania
2018 Feb. Colloquium, Center for Communications Research Princeton
2017 Oct. Oregon Number Theory Days, University of Oregon
2017 May. Number Theory Seminar, University of Washington

Teaching

Math 2E: Multivariable Calculus, Instructor
Fall 2018
Math 308: Matrix Algebra with Applications, Instructor
Spring 2018

Math 124: Calculus I, Teaching Assistant
Winter 2014
Math 125: Calculus II, Teaching Assistant
Fall 2013, Spring 2014, Fall 2014, Winter 2014, Spring 2015, Fall 2015, Winter 2016, Spring 2016, Winter 2017, Fall 2017, Winter 2018
Math 126: Calculus III, Teaching Assistant
Fall 2016
Math 125: Calculus II, Instructor
Summer 2014, Summer 2015, Summer 2016, Summer 2017, Summer 2018
Math 510A: Preliminary Exam Preparation for Graduate Students, Instructor
Summer 2015, Summer 2016

Programming

- I regularly use `Sage` in my research, and contribute to `Sage` development.
- I have written tens of thousands of lines of code in `Go`, `Javascript`, and `Python` and built several web applications, including an online math homework system.

Awards and grants

2018 Best Poster, Algebraic Number Theory Symposium XIII
2017 Kazanci Fellowship, University of Washington
2014 Academic Excellence Award, University of Washington
2013 ARCS Fellowship, University of Washington
2013 Academic Merit Award, University of Washington
2012 DeCou Scholarship, University of Oregon

Conferences Attended

2018 Sep. *Open Questions in Cryptography and Number Theory*, Irvine, CA
2018 Aug. *MAA MathFest*, Denver, CO
2018 Jul. *Algorithmic Number Theory Symposium XIII*, Madison, WI
2018 Jun. *Communicating Mathematics Effectively*, Seattle, WA
2018 Apr. *PNW MAA Section Meeting*, Seattle, WA
2018 Jan. *Joint Math Meetings*, San Diego, CA
2017 Oct. *Oregon Number Theory Days*, Eugene, OR
2016 June *SaTC Workshop on Privacy and Security*, Madison, WI
2016 Mar. *Arizona Winter School, Analytic Methods in Arithmetic Geometry*, Tucson, AZ
2016 Jan. *Joint Mathematics Meetings*, Seattle, WA
2015 Oct. *Western Algebraic Geometry Symposium*, Seattle, WA
2015 Aug. *Sage Days 68*, Bellingham, WA
2015 May. *Sage Days 64.25*, Encinitas, CA

2015 Mar. *Arizona Winter School*, *Rational Points on Surfaces*, Tucson, AZ

Outreach

2018 – 2018 Tutor, Ada Developers Academy, Seattle WA
helping women and underrepresented minorities learn to code
2015 – 2018 Member, Association for Women in Mathematics, University of Washington Chapter
volunteering at tutoring sessions, idea workshops, and event organizing
2016 – 2018 Mentor, Washington Experimental Mathematics Lab, University of Washington
working with groups of undergraduate researchers
2015 – 2018 Sage Workshop Leader, Math Day, University of Washington
teaching high school students about programming and math
2015 – 2017 Volunteer, Julia Robinson Math Festival, University of Washington
leading elementary school students through puzzles
2016 – 2016 Mentor, Google Summer of Code, University of Washington
helping guide a project about computing with modular abelian varieties

Employment

2018 – (cur.) Visiting Assistant Professor, University of California, Irvine
2018 – 2018 Software Engineer, `www.cocalc.com`
2018 – 2018 Lecturer, University of Washington
2013 – 2018 Teaching Assistant, University of Washington
2015 – 2017 Web Developer, University of Washington
2015 – 2016 Contract Web Designer, Virginia Tech
2013 – 2014 Contract Web Designer, San Diego
2012 – 2013 Math Librarian, University of Oregon