

# Travis Scholl

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## ACADEMIC EMPLOYMENT

2018 – (cur.) Visiting Assistant Professor, University of California, Irvine  
2018 – 2018 Lecturer, University of Washington

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## EDUCATION

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

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## RESEARCH INTERESTS

- Computational number theory
- Elliptic curve cryptography

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## PUBLICATIONS

1. T. Scholl. Super-Isolated Abelian Varieties. Submitted September 2018. Available at <https://arxiv.org/abs/1809.03649>.
2. T. Scholl. Abelian Varieties with Small Isogeny Class and Applications to Cryptography. PhD Thesis, University of Washington. Published online July 2018. Available at <http://hdl.handle.net/1773/42458>.
3. T. Scholl. Super-Isolated Elliptic Curves and Abelian Surfaces in Cryptography. *Experimental Mathematics*. Published online January 2017. Available at <https://doi.org/10.1080/10586458.2017.1412371>.
4. T. Scholl. Isolated elliptic curves and the MOV attack. *Journal of Mathematical Cryptology*, 11(3):131–146, 2017. DOI: <https://doi.org/10.1515/jmc-2016-0053>.

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## AWARDS AND GRANTS

2019 eTech Mini Grant, University of California, Irvine  
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

## RESEARCH TALKS

2018 Oct. Number Theory Seminar, University of California Los Angeles  
 2018 Oct. Number Theory Seminar, University of California Irvine  
 2018 Oct. Cryptography Seminar, University of California Irvine  
 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

### UNIVERSITY OF CALIFORNIA IRVINE

Math 173B: Cryptography

Winter 2019

Math 3A: Linear Algebra, Instructor

Winter 2019

Math 2E: Multivariable Calculus, Instructor

Fall 2018

### UNIVERSITY OF WASHINGTON

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

## CONFERENCES ATTENDED

2019 Jan. *Joint Math Meetings*, Baltimore, MD  
 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

## OTHER EMPLOYMENT

2018 – 2018 Software Engineer, [www.cocalc.com](http://www.cocalc.com)  
 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

## OTHER SKILLS

- I contribute to the free and open source computer algebra system **Sage**, and regularly use **Sage** in my research.
- 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.