# Travis Scholl

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https://tscholl2.github.io/website/

U.S. Citizen

Last Updated: April 11, 2019

#### ACADEMIC EMPLOYMENT

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

2018 – 2018 Lecturer, University of Washington

## **EDUCATION**

2018 Ph.D. Mathematics, University of Washington (advisor: Neal Koblitz)

2013 B.S. Mathematics, University of Oregon

#### RESEARCH INTERESTS

- Computational number theory
- Elliptic curve cryptography

#### **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 2018. 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.

#### 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

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## 2012 DeCou Scholarship, University of Oregon

#### RESEARCH TALKS

2019 Mar. AMS Special Session on Arithmetic Geometry, University of Hawa	Hawai'i at Mānoa
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- 2019 Mar. AMS Special Session on Cryptography, University of Hawai'i at Manoa
- 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 120B: Ring Theory

Spring 2019

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

#### SEMINARS ORGANIZED

2018 – cur. Cryptographic Multilinear Maps, University of California Irvine

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## Conferences Attended

- 2019 Mar. AMS Sectional Meeting, Honolulu, HI
- 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**

- 2019 2019 Math Circle Leader, University California, Irvine, Irvine CA
- 2018 2018 Tutor, Ada Developers Academy, Seattle WA
- 2015 2018 Member, Association for Women in Mathematics, University of Washington Chapter
- 2016 2018 Mentor, Washington Experimental Mathematics Lab, University of Washington
- 2015 2018 Sage Workshop Leader, Math Day, University of Washington
- 2015 2017 Volunteer, Julia Robinson Math Festival, University of Washington
- 2016 2016 Mentor, Google Summer of Code, University of Washington

## OTHER EMPLOYMENT

- 2018 2018 Software Engineer, 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 reguarly 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.