

Employment

2016- **Hans Rademacher Instructor (Postdoc)**, *University of Pennsylvania, USA.*

Education

2010-2016 **PhD in Mathematics**, *University of Washington, Seattle, USA.*

Advisor: Ralph Greenberg

2006-2010 **B.Tech in Engineering Physics**, *Indian Institute of Technology Bombay, India.*

Papers and Preprints

On Selmer groups and factoring p -adic L -functions,

<https://arxiv.org/abs/1605.01026>,

accepted for publication in IMRN.

Height one specializations of Selmer groups,

<http://arxiv.org/abs/1510.08386>

submitted on 22 August, 2016.

On free resolutions of Iwasawa modules,

<https://arxiv.org/abs/1707.01485>

with Alexandra Nichifor,
submitted on July 10, 2017.

On codimension two cycles in Iwasawa theory and elliptic curves with supersingular reduction,

with Antonio Lei.

in preparation

On codimension two cycles in Iwasawa theory and tensor product of Hida families.

in preparation

Talks

Nov 2017 **Quebec Vermont Number theory seminar,** *Concordia University, Canada.*

Sept 2017 **Number theory seminar,** *University of British Columbia, Canada.*

Sept 2017 **Algebra seminar,** *University of Pennsylvania, USA.*

Mar 2017 **Number theory seminar,** *Université Laval, Canada.*

Jan 2017 **Philadelphia Area Number Theory Seminar,** *Bryn Mawr, USA.*

Jun 2016 **Workshop on “New Directions in Iwasawa theory”,** *Banff Research Center, Canada,*
Video link: <https://goo.gl/EksZ2s>.

Apr 2016 **Galois seminar,** *University of Pennsylvania, USA.*

Jan 2016 **Number theory seminar,** *University of California Los Angeles, USA.*

Nov 2015 **Number theory seminar,** *University of Arizona, USA.*

Oct 2014 **Number theory seminar,** *University of Washington USA.*

Sept 2014 **Number theory seminar,** *IIT Bombay, India.*

Contributed Talks: 20 minutes

Oct 2016 **Maine/Québec Number theory conference,** *Université Laval, Canada.*

- Mar 2016 **30th Automorphic forms workshop**, Wake Forest University, USA.
 Oct 2015 **Midwest Number theory conference**, University of Illinois Chicago, USA.
 Sept 2015 **Boston-Keio workshop**, Boston University USA.

Future conferences

- June 2018 **Algebraische Zahlentheorie**, Oberwolfach, Germany.
 May 2018 **Iwasawa Theory and Related Topics**, University of Heidelberg, Germany.
 March 2018 **Arizona Winter School on Iwasawa Theory**, University of Arizona Tucson, USA,
 Study group guide for John Coates's study group on Weak Leopoldt conjecture.

Selected Workshops

- Jan 2017 **Number Theory Monthly program**, Centre de Recerca Matemàtica, Barcelona, Spain,
 Integral overconvergent modular forms Workshop by Adrian Iovita.
 July 2015 **Algebraic Geometry Bootcamp**, University of Utah Salt Lake City, USA,
 Shimura Varieties Project group of Ana Caraiani.
 March 2013 **Arizona Winter School**, University of Arizona Tucson, USA,
 Modular forms and Modular curves Project group of Jared Weinstein.

Other Conferences and Workshops attended

- May 2017 Workshop on Arithmetic Cherns-Simons theory University of Leiden, Netherlands
 July 2017 Iwasawa 2017 University of Tokyo, Japan
 Mar 2017 Perfectoid Spaces University of Arizona, USA
 May 2015 p -adic methods in Number theory University of California, Berkeley, USA
 Mar 2015 Arithmetic and Higher-Dimensional Varieties University of Arizona, USA
 June 2014 p -adic variation in Number Theory Boston University, USA
 May 2014 Atkin Memorial workshop University of Illinois Chicago, USA
 Feb 2014 Perfectoid spaces and their applications MSRI Berkeley, USA
 July 2012 Pan-Asian NTC, Workshop on Bloch-Kato conjectures IISER Pune, India
 June 2012 p -adic modular forms and arithmetic University of California Los Angeles, USA

Mentoring

- Masters **Andrea Thevis (completed)**, Elliptic curves and cryptography.
 Masters **Weichen Zhou (ongoing)**, Elliptic curves over \mathbb{C} with complex multiplication.
 Independent **Yao-Rui Yeo (ongoing)**, Galois representations and Fontaine-Mazur conjecture.
 Study

Teaching at University of Pennsylvania

- Fall 2017 **Math 620: Algebraic Number Theory**,
<https://canvas.upenn.edu/courses/1368694>.
 Spring 2017 **Math 240: Introduction to Linear algebra and ordinary differential equations**,
<https://canvas.upenn.edu/courses/1350696>.
 Fall 2016 **Math 420: Ordinary differential equations**,
<https://canvas.upenn.edu/courses/1334099>.

Fall 2016 **Math 104: Calculus I**,
<https://canvas.upenn.edu/courses/1333438>.

Teaching at University of Washington

Spring 2016 **Introduction to ordinary differential equations (Instructor)**,
<https://canvas.uw.edu/courses/1042105>.

Matrix Algebra with applications (Instructor),

Summer 2015 <https://canvas.uw.edu/courses/973608>

Winter 2015 <https://canvas.uw.edu/courses/948727>

Spring 2014 <https://canvas.uw.edu/courses/898451>

Winter 2014 <https://canvas.uw.edu/courses/883256>.

Summer 2013 **Introduction to mathematical reasoning (Instructor)**,
<https://canvas.uw.edu/courses/842178>.

Teaching assistant for various undergraduate calculus courses

Fellowships

Spring 2013 Robert and Elaine Phelps fellowship

Other synergistic activities

2016-2017 **Committee Assignments**, *University of Pennsylvania, USA*,
Preliminary examination committee, Transfer credit committee, AP/Make-Up Exam,
Undergraduate Committee.

2013, 2014 **Graduate TA mentor**, *University of Washington, USA*,
Facilitated the TA training program and mentored 5 incoming graduate students both in
Fall 2013 and Fall 2014.