

# Jared Weinstein

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## Academic Positions

Member, Mathematical Sciences Research Institute, Spring 2019.

Associate Professor, Boston University, 2017–present

Assistant Professor, Boston University, 2011–2017

Visiting Scholar, University of California, Berkeley, Fall 2014.

Member, Institute for Advanced Study, Princeton, NJ, 2010–2011

NSF Postdoctoral Fellow, University of California, Los Angeles, 2008–2010

Assistant Adjunct Professor, University of California, Los Angeles, 2007–2008

## Education

Ph.D. Mathematics, University of California, Berkeley, 2007.

A.B. Mathematics, *magna cum laude*, Harvard University, 2002.

## Grants and Awards

Sloan Fellowship, 2014–2016.

NSF Conference Support for “ $p$ -adic Variation and Number Theory”, a conference in honor of Glenn Stevens, 2014.

NSF Research Award, “Arithmetic Moduli at Infinite Level”, 2013–2016.

NSF Postdoctoral Research Fellowship in the Mathematical Sciences, 2008–2011.

NSF Graduate Research Fellowship, 2003–2006.

## Research Fields

Number Theory, Arithmetic Geometry, Automorphic Forms, Representation Theory

## Publications

*Berkeley lectures on  $p$ -adic geometry*, with Peter Scholze. Book manuscript.

*On the Kottwitz conjecture for local Shimura varieties*, with Tasho Kaletha, featuring an appendix by David Hansen. Preprint.

*Semistable models for modular curves of arbitrary level*, *Inventiones Mathematicae* 205 (2016), no. 2, 459-526.

$\text{Gal}(\overline{\mathbf{Q}}_p/\mathbf{Q}_p)$  as a geometric fundamental group, *International Mathematics Research Notices* (2016), no. 0, 1-34.

*Reciprocity laws and Galois representations: recent breakthroughs*. *Bulletin of the American Mathematical Society* 53 (2016), no. 1, 1-40.

*Maximal varieties and the local Langlands correspondence for  $GL(n)$* , with Mitya Boyarchenko. *Journal of the American Mathematical Society* (2016), no. 1, 177-236.

*Moduli of  $p$ -divisible groups*, with Peter Scholze. *Cambridge Journal of Mathematics* 1 (2013), no. 2, 145-237.

*On the computation of local components of a newform*, with David Loeffler. *Mathematics of Computation* (2012), no. 278, 1179-1200.

*Good reduction of affinoids on the Lubin-Tate tower*. *Documenta Mathematica* 15 (2010) 981-1007.

*The local Jacquet-Langlands correspondence via Fourier analysis*, *Journal de Théorie de Nombres de Bordeaux* 22 (2010), no. 2.

*Hilbert modular forms with prescribed ramification*, *International Mathematics Research Notices* (2009), 1388-1420.

*Beyond value at risk: Forecasting portfolio loss at multiple horizons*, with Lisa Goldberg and Guy Miller. *Journal of Investment Management* 6 (2008), no. 2, 1-26.

*Automorphic representations with local constraints*, UC Berkeley Ph.D. dissertation, 2007.

## Recent Conference Activities

Canadian Number Theory Association Conference, Quebec City, July 2018 (*plenary speaker*).

Communicating Mathematics Effectively, Seattle, June 2018 (*faculty mentor*).

Algebraic groups and the geometrization of the Langlands program, Lyon, May 2018 (*invited speaker*).

Arizona Winter School 2017: Perfectoid Spaces, Tucson, Mar. 2017 (*taught one of four mini-courses*).

Oberwolfach seminar on perfectoid spaces, Oberwolfach, Germany, Oct. 2016 (*organizer*).

West Coast Algebraic Topology Summer School, Eugene, OR, Aug. 2016 (*organizer*).

Clay Research Conference and Workshops, Oxford, Sep. 2015.

29th Journées Arithmétiques, Debrecen, Hungary, July 2015 (*plenary speaker*).

- Non-Archimedean Geometry and its Applications, Ann Arbor, June 2015.
- $p$ -adic Methods in Number Theory (Robert Coleman memorial conference), Berkeley, May 2015.
- Current Events Bulletin, AMS-JMM Joint Meetings, San Antonio, Jan. 2015.
- Introductory Workshop: New Geometric Methods in Number Theory and Automorphic Forms, MSRI, Berkeley, Sep. 2014.
- Arithmetic of Shimura varieties, automorphic forms, and applications, Luminy, July 2014.
- Perfectoid spaces and their applications, a “Hot topics” workshop at MSRI. Berkeley, Feb. 2014 (*organizer and speaker*).
- $p$ -adic Hodge theory and beyond, Institut des Hautes Études Scientifiques, Paris, Sep. 2013 (*invited speaker*).
- Arizona Winter School 2013: Modular forms and modular curves, University of Arizona, Mar. 2013 (*taught one of four mini-courses*).
- Towards a Local Proof of the Local Langlands Correspondence, University of Illinois at Chicago, May 2012 (*invited speaker*).
- AMS Special Session on Arithmetic Geometry, Joint Mathematics Meetings, Boston, Jan. 2012 (*invited speaker*).
- AMS Short Course: Computing with elliptic curves using SAGE, Joint Mathematics Meetings, Boston, Jan. 2012.
- Boston-Keio Summer Workshop, Boston University, Sep. 2011 (*series of three lectures*).
- Workshop on  $L$ -functions, Galois Representations and Iwasawa Theory, University of Michigan, Ann Arbor, May 2011 (*invited speaker*).
- Workshop on Galois Representations and Automorphic Forms, Institute for Advanced Study, Princeton, Mar. 2011 (*invited speaker*).
- Motives and Modular Forms, a conference for Don Blasius’ 60th birthday, IPAM, Los Angeles, Nov. 2010 (*invited speaker*).
- Modular/Geometric Iwasawa Theory and  $p$ -adic  $L$ -functions, UCLA, Jun. 2010 (*invited speaker*).
- Sage Days 22: Computing with Elliptic Curves, MSRI, Berkeley, Jun. 2010 (*two week mini-course*).
- Computer Methods for  $L$ -functions and Automorphic Forms, CRM, Montreal, Mar. 2010 (*invited speaker*).
- Computations related to the Birch and Swinnerton-Dyer Conjecture, CMI, Cambridge, MA, Dec. 2009 (*invited speaker*).

## Recent Seminar Talks

MIT number theory seminar, Feb. 2018.

UC Berkeley colloquium and number theory seminar, Jan. 2018.

Princeton number theory seminar, May 2017.

Harvard number theory seminar, Nov. 2016.

Quebec-Vermont number theory seminar, May 2016.

Univ. of Chicago number theory seminar, May 2016.

Princeton mathematics colloquium, Apr. 2015.

UC Berkeley number theory seminar, Mar. 2015.

Columbia-NYU-Cuny number theory colloquium, Feb. 2015.

UC Santa Cruz number theory seminar, Dec. 2014.

U. Arizona department colloquium, Nov. 2014.

Harvard-MIT-Brandeis colloquium, Apr. 2014.

Stanford number theory seminar, Oct. 2014.

U. Mass. Amherst number theory seminar, Mar. 2014.

Quebec-Vermont number theory Seminar, Dec. 2013.

Columbia University number theory seminar, Dec. 2013.

Univ. of Chicago geometric Langlands seminar (two talks), Feb. 2013.

Univ. of Chicago number theory seminar, Feb. 2013.

Maryland Number Theory Day, Oct. 2012.

Univ. of Chicago number theory seminar, May 2012.

Univ. of Michigan group theory/Lie theory/number theory seminar, Apr. 2012.

Boston University number theory seminar (three talks), Jan. 2012.

Universität Bonn number theory seminar, Bonn, Nov. 2011.

Athens-Atlanta number theory seminar, Georgia Tech, Nov. 2011.

Brandeis number theory seminar, Oct. 2011.

Boston College number theory seminar, Oct. 2011.

Boston University Number theory seminar, Oct. 2011.

Harvard number theory seminar, Sep. 2011.

University of Michigan group theory/Lie theory/number theory seminar, Jan. 2011.

Rutgers number theory seminar, Dec. 2010.

IAS seminar on automorphic forms and Galois representations, Oct. 2010.  
Stanford number theory seminar, Oct. 2010.  
Univ. of Wisconsin number theory seminar, Madison, Sep. 2010.  
UC Berkeley number theory seminar, Sep. 2010.  
Vermont-Quebec number theory seminar, McGill, Sep. 2010.  
London number theory seminar, King's College London, May 2010.  
Cambridge number theory seminar, May 2010.  
Colorado State Univ. number theory seminar, Apr. 2010.  
Northwestern Univ. number theory seminar, Apr. 2010.  
Univ. of Indiana number theory seminar, Mar. 2010.  
Stanford number theory seminar, Mar. 2010.  
Boston University number theory seminar, Dec. 2009.  
Univ. of Washington number theory seminar, Apr. 2009.  
UC Santa Cruz number theory seminar, Apr. 2009.

## Other recent academic activities

Taught a course on the Banach-Tarski paradox to students at the Ross Program Asia, Nanjing, China, July 2016.  
Visit to Benoit Stroh, Paris 13, May 2016.  
Taught graduate course on Drinfeld modules and shtukas, UC Berkeley, Fall 2014.  
Taught six-week course in algebraic number theory, PROMYS program, Boston University, Summer 2012.  
Invited to Clay Research Conference, Oxford, Jun. 2012.  
Visit to Peter Scholze, Universität Bonn, Nov. 2011.  
Magma group, two-week visit, Sydney, May 2011.  
Visit to University of Michigan, Jan. 2011.  
Visit to Teruyoshi Yoshida, Cambridge University, May 2010.  
Los Angeles Math Circle (Sunday workshop series in mathematics for advanced LA area high school students), lecturer, 2009-2010.  
Park City Mathematics Institute, research program member, summer 2009.  
Magma group (software for computational algebra), monthlong visit, Sydney, May 2009.  
Sage Days 17: Computing with modular forms and L-functions, workshop participant, Lopez Island, WA, Sept. 2009.  
UCLA number theory seminar, organizer, Fall 2008–Spring 2010.

## **Personal**

Born April 17, 1982, Oceanside, NY, USA