

Gyujin Oh

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RESEARCH INTERESTS Number theory; automorphic representations, complex and p -adic Hodge theory, special values of L -functions, Langlands program, algebraic analysis.

EDUCATION **Princeton University**
Ph.D. in Mathematics, 2017–2022 (Expected).
Advisors: Akshay Venkatesh, Christopher Skinner.
Trinity College, University of Cambridge
M.A.St. in Pure Mathematics (Part III), with Distinction. 2016–2017.
Stanford University
B.S. in Mathematics with Honors, Minor in Computer Science. 2010–2016.
On leave 2012–2014 for mandatory military service.

PREPRINTS 6. Gyujin Oh, **Coherent cohomology of Shimura varieties, motivic cohomology, and archimedean L -packets**. Preprint. 2021.
5. Gyujin Oh, **Higher Koecher’s principle, harmonic Hilbert Maass forms and their Borcherds lift**. Preprint. 2021.
4. Gyujin Oh, **Higher Hida theory and the p -adic L -function for $U(2, 1)$** . Preprint. 2021.
3. Gyujin Oh, **A proof of Néron–Ogg–Shafarevich criterion via its archimedean analogue**. Preprint. 2020.

PUBLICATIONS 2. Gyujin Oh, **Brauer Obstructions of Finite Groups of Lie Type in View of the Local Langlands Correspondence**. Bachelor’s Thesis, Stanford University, 2016.
1. Seok Hyeong Lee, Gyujin Oh, **On the distribution of cyclic number fields of prime degree**. *Int. J. Number Theory* **08-06** (2012), 1463-1475.

HONORS

- Centennial Fellowship, Princeton University (2017–2021).
- Trinity Studentship in Mathematics, Trinity College, Cambridge (2016–2017).
- Firestone Medal for Excellence in Undergraduate Research (2016).
- Putnam Fellow, William Lowell Putnam Competition (2016).
- Gold Medal, International Mathematical Olympiad (IMO) (2008).

EXPERIENCES

- Instructor for MAT 104 (Calculus II) in Spring 2020, Preceptor for MAT 103 (Calculus I) in Fall 2021, and TA/Grader for various undergraduate and graduate courses.
- Organized various seminars: Learning seminar on the moduli of Langlands parameters, on deformation theory and cotangent complexes (with Mohan Swaminathan), on theta correspondences (with Shilin Lai), on higher Hida theory (with Shilin Lai), on coherent sheaves on the moduli of Langlands parameters, and Princeton Junior Number Theory Tea.

- Republic of Korea Air Force, Sergeant (2012–2014).
- Commissioner of Team US for IMO 2020.

INVITED RESEARCH
TALKS

- Number Theory Informed by Computation, Park City Mathematics Institute, July 2022 (virtual).
- Number theory seminar, KAIST, Spring 2022 (virtual).
- Number theory seminar, UCSD, May 2022.
- Number theory seminar, UW–Madison, May 2022 (virtual).
- RTG Number theory seminar, University of Michigan, April 2022.
- Automorphic forms and Arithmetic seminar, Columbia University, March 2022.
- Number theory seminar, Seoul National University, December 2021 and January 2022.
- London–Warwick Euler systems seminar, November 2021 (virtual).
- RTG Arithmetic geometry and number theory seminar, UC Berkeley, October 2021.
- Number theory seminar, KIAS, July 2019.

CONFERENCES AND
WORKSHOPS
ATTENDED

- School in Arithmetic Geometry, Essen, 2018
- Serre Conjectures and the p -adic Langlands Program, Padova, 2019
- Geometric Realizations of Jacquet–Langlands Correspondences, AIM, 2019
- Periods, Representations, and Arithmetic: Recent Advances on the Gan–Gross–Prasad Conjectures and their Applications, Clay Research Conference, Oxford, 2019
- Sparsity of Algebraic Points, Summer Graduate School, MSRI, 2021 (online)

CITIZENSHIP

Republic of Korea (South Korea).