Kazuma Ohara | Curriculum Vitae

Graduate School of Mathematical Sciences, The University of Tokyo,
3-8-1 Komaba, Meguroku, Tokyo 153-8914, Japan
✉ kohara@ms.u-tokyo.ac.jp

Education

○ Doctor, Mathematical Sciences, The University of Tokyo, April 2022–present
Supervisor: Noriyuki Abe, Tasho Kaletha (2023 winter; short-term stay at the University of Michigan)

○ Master, Mathematical Sciences, The University of Tokyo, April 2020–March 2022
Thesis: *Hecke algebras for tame supercuspidal types*
Supervisor: Noriyuki Abe

○ Bachelor, Science, The University of Tokyo, April 2016–March 2020

Research Interests

○ Representation theory of Hecke algebras and reductive groups over local fields

○ Langlands correspondence and Langlands functoriality

Grants/Fellowships

○ JSPS Research Fellow (DC1), Japan Society for the Promotion of Science (Grant Number: 22J22712), April 2022–March 2025

○ FMSP course student, The Leading Graduate Course for Frontiers of Mathematical Sciences and Physics, September 2020–March 2025

Award

○ Dean's Award(Master's course), Graduate School of Mathematical Sciences, the University of Tokyo, March 2022.

Papers

Published or Accepted:

1. *A comparison of endomorphism algebras* , Journal of Algebra **659** (2024), 183–343.
2. *Hecke algebras for tame supercuspidal types*, Amer. J. Math. **146** (2024), no. 1, 277–293. MR 4691489
3. *On the formal degree conjecture for non-singular supercuspidal representations*, Int. Math. Res. Not. IMRN (2023), no. 13, 10997–11034. MR 4609777

Preprints:

1. (with Jeffrey D. Adler, Jessica Fintzen, and Manish Mishra) *Reduction to depth zero for tame p-adic groups via Hecke algebra isomorphisms*, arXiv e-prints (2024), arXiv:2408.07805.

2. (with Jeffrey D. Adler, Jessica Fintzen, and Manish Mishra) *Structure of Hecke algebras arising from types*, arXiv e-prints (2024), arXiv:2408.07801.

Talks in Seminars/Workshops/Conferences

(1) Tokyo Tech Representation Theory Seminar, Tokyo Institute of Technology, August 30, 2024, promised

(2) Landscape of Representation Theory, Aoyama Gakuin University, August 1-2, 2024

(3) Seminar on Number Theory and Automorphic Forms, Osaka University, July 12, 2024

(4) 23rd Sendai-Hiroshima Workshop on Number theory, Tohoku University, July 9-12, 2024

(5) Kanazawa Algebra Seminar, Kanazawa University, June 18, 2024

(6) Expansion in Representation Theory and Harmonic Analysis, RIMS, June 11-14, 2024

(7) Number theory seminar at Waseda university, Waseda University, May 31, 2024

(8) Research on automorphic forms, RIMS, January 22-26, 2024

(9) Symposium on Representation Theory 2021, Okinawa, Japan, November 20-22, 2023

(10) 24th Autumn Workshop on Number Theory, Hokkaido University, October 30 to November 3, 2023

(11) Kurashiki Number Theory Meeting 2023, Kurashiki Seaside Hotel, September 11-18, 2023

(12) Trimester Seminar Series, Hausdorff Institute For Mathematics, May 18, 2023

(13) Group, Lie and Number Theory Seminar, the University of Michigan, March 27, 2023

(14) Johns Hopkins Number Theory Seminar, Johns Hopkins University, February 08, 2023

(15) 9th Kyoto conference on automorphic forms, Kyoto University, June 24-26, 2022

(16) Algebraic Lie Theory and Representation Theory, online, May 23-27, 2022

(17) Automorphic form, automorphic L-functions and related topics, RIMS, January 24-28, 2022

(18) Colloquium of Algebra, the University of Tokyo, November 24, 2021

(19) Symposium on Representation Theory 2021, online, November 18-21, 2021

Teaching Experiences

Teaching Assistant

(1) Summer 2024, Teaching assistant, "Foundations of Analysis", University of Tokyo

(2) Winter 2022, Teaching assistant, "Algebra and Geometry", University of Tokyo

(3) Summer 2022, Teaching assistant, "Foundations of Analysis", University of Tokyo

(4) Winter 2021, Teaching assistant, "Algebra and Geometry", University of Tokyo

(5) Summer 2021, Teaching assistant, "Foundations of Analysis", University of Tokyo

(6) Winter 2020, Teaching assistant, "Algebra and Geometry", University of Tokyo

(7) Summer 2020, Teaching assistant, "Foundations of Analysis", University of Tokyo