

Curriculum Vitae

HaoYun Yao

Durham, NC 27708

haoyun.yao@duke.edu

(919) 396-1903

RESEARCH INTERESTS

Automorphic representation toward trace formula, representation theory for LCH groups and Lie groups.

CURRENT POSITION

Duke University, Durham, NC, US (Fall 2023 -)

PhD, Mathematics

- Advisor: Jayce R. Getz
- Project: Non-abelian trace formula.

PAST EDUCATION

National Taiwan University, Taipei city, Taiwan (2018 - 2022)

Bachelor of Science, Mathematics; GPA: 3.93

National Taiwan University, Taipei city, Taiwan (2022 - 2023)

Master of Science, Mathematics

- Advisor: Ming-Lun Hsieh

Overall courseworks:

- Introduction to Number Theory, Algebraic Number Theory, Multiple Zeta Values and Iterated Integrals, Introduction to Iwasawa theory, Algebraic Geometry, Introduction to Algebraic Topology, Graph Theory, Finite group representation, Automorphic forms on $GL(2)$, Lie Groups and Lie Algebras

TEACH EXPERIENCES

Duke University

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National Taiwan University

- TA for Algebraic Number Theory (Spring 2023)
- TA for Undergraduate Linear Algebra for Department of Mathematics (Fall 2022 - Spring 2023)
- TA for Introduction to Complex Analysis (Fall 2021 - Winter 2022)
- TA for Calculus for Department of Electrical Engineering (Fall 2020 - Summer 2021)

PAST TRIPS

- Aarhus Automorphic Forms Conference (4 August - 15 August, 2025)

- Iwasawa 2025 / Iwasawa summer school (25 June - 7 July, 2025)
- Arizona Winter School 2025: Representation theory of p-adic groups (8-12, March 2025)
- Palmetto Number Theory Series (PANTS) XXXVIII (21-22, September 2024)
- Building Bridges: 6th EU/US Summer School & Workshop on Automorphic Forms and Related Topics (2-13, September 2024)
- MSRI summer graduate school - Tropical Geometry (01-12, August 2022)

EXTRACURRICULAR EXPERIENCES

- Lecturer of Student Seminar for freshmen (Summer 2020)
 - Basic concepts in algebras and Stokes' theorem on manifolds.
 - Main reference: Chapter 2, 5 (all partial) in GTM 139 by Bredon, Glen E.
- Lecturer of Math Camp for High School Students, Host by Student Association of Math Department, NTU (Summer 2019)
 - Basic concepts on linear error-correcting codes.

HONORS/AWARDS

- Dean's List (2019, 2021, 2021)
- Scholarship for Excellence (卓越獎學金) (2020)
- Distinguished Teaching Assistance (2021)

LANGUAGES

Chinese (native)

English

Japanese (not fluent)