

Curriculum Vitae

Lee Tae Young

Email: tae.young@binghamton.edu
Phone: (+1) 908-720-5638
Website: <https://tyleemath.github.io/>
ORCID: 0000-0002-6849-3599

EMPLOYMENT

Binghamton University, State University of New York Aug. 2024 -
Binghamton, New York, USA
Robert Riley Visiting Assistant Professor, Department of Mathematics and Statistics

EDUCATION

Rutgers, the State University of New Jersey Aug. 2019 - May 2024
New Brunswick, New Jersey, USA
Ph.D. in Mathematics, Advisor: Pham Huu Tiep

KAIST: Korea Advanced Institute of Science and Technology Mar. 2013 - Feb. 2019
Daejeon, Republic of Korea (South Korea)
B.S. in Mathematical Sciences (*Magna Cum Laude*)

RESEARCH INTERESTS

I am mainly interested in (finite or algebraic) group theory, representation theory and their applications in broad contexts including number theory, geometry and combinatorics. My thesis is about constructions and identifications of finite groups and representations arising in geometric and number theoretic context, namely monodromy groups of local systems. I also like to think about discrete mathematics.

PUBLICATIONS AND PREPRINTS

1. *Hypergeometric Sheaves and Extraspecial groups in even characteristic*, submitted. arXiv:2407.12586
2. *Hypergeometric Sheaves and Finite General Linear Groups*, Journal of Algebra 659 (2024)
3. *A question of Katz and Tiep on representations of finite general unitary groups*, Comm. Algebra 50 (2022)

TALKS

1. KAIST Number Theory Seminar (Invited) May 2024
2. AMS Special Section on Groups and Representations (Invited) May 2024

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| 3. Monodromy and Its Applications (12 minute “lightning talk”) | Dec 2023 |
| 4. Fairfield Algebra Regional Meeting | Dec 2023 |
| 5. Rutgers Algebra Seminar | Nov 2023 |
| 6. Groups 2023: Northern Group Theory Conference (Poster Session) | Sep 2023 |
| 7. Zassenhaus Groups and Friends Conference | Jun 2023 |
| 8. AMS Special Session on Excursions in Arithmetic Geometry, JMM 2023 (Invited) | Jan 2023 |

TEACHING EXPERIENCE

Binghamton University

- Math 304: Linear Algebra Fall 2024

Rutgers University

- Math 250: Introduction to Linear Algebra (Teaching Assistant) Fall 2023
- Directed Reading Program for undergraduates (Mentor) Summer 2023
- Math 152: Calculus II for the Mathematics and Physical Sciences (Workshop Instructor) Spring 2023
- Math 250: Introduction to Linear Algebra (Teaching Assistant) Fall 2020

AWARDS

School of Arts and Sciences Fellowship Spring 2024
Rutgers University

Silver prize, The 37th College Mathematics Competition Nov 2018
Korean Mathematical Society

Pairs 9th Place (joint), 2018 Simon-Marais Mathematics Competition Oct 2018
Paired with Donghyun Kim

Silver prize, The 36th College Mathematics Competition Nov 2017
Korean Mathematical Society

Honor Student of KAIST Sep 2014 - Feb 2019

The National Scholarship for Science and Engineering Mar 2013 - Feb 2019
Republic of Korea