

# Curriculum Vitae

Lee Tae Young

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## 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. Binghamton Algebra Seminar Nov 2024
2. KAIST Number Theory Seminar (Invited) May 2024

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| 3. AMS Special Section on Groups and Representations (Invited)                  | May 2024 |
| 4. Monodromy and Its Applications (12 minute “lightning talk”)                  | Dec 2023 |
| 5. Fairfield Algebra Regional Meeting   | Dec 2023 |
| 6. Rutgers Algebra Seminar  | Nov 2023 |
| 7. Groups 2023: Northern Group Theory Conference (Poster Session)               | Sep 2023 |
| 8. Zassenhaus Groups and Friends Conference                                     | Jun 2023 |
| 9. 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

## LANGUAGES

- **Korean** 한국어: Native
- **English**: 5+ years of studying/working in the United States
- **Japanese** 日本語: JLPT N1