

Yong-Gyu Choi

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Education

- 2019– **Ph.D. in Mathematics**, KAIST, Daejeon
Advisor: Prof. Wansu Kim.
Degree to be conferred August 2025.
Dissertation: On degenerations of D^\times -shtukas over ramified legs, defended May 2025
- 2015–2019 **B.S. in Mathematics**, KAIST, Daejeon, *magna cum laude*

Research Interests

- Arithmetic geometry
- Algebraic number theory
- Moduli stacks of shtukas and Shimura varieties
- Langlands program
- Trace formula

Award

- 2019 Best Teaching Assistant Awards for Spring 2019, Department of Mathematical Sciences, KAIST

Preprint

- 2025 Y.-G. Choi, Wansu Kim, and Junyeong Park, *On properness of moduli stacks of D^\times -shtukas over ramified legs*, arXiv:2505.18977

Talks

- May 2025 *Degenerations of D^\times -shtukas over ramified legs*, G-BRL Number Theory Seminar at CNU, Chonnam National University
- May 2025 *Degenerations of D^\times -shtukas over ramified legs*, PMI Number Theory Seminar, Postech
- April 2025 *Degenerations of D^\times -shtukas over ramified legs*, 2025 KMS(Korean Mathematical Society) Spring Meeting, KAIST
- November 2023 *On Degenerations of D -shtukas over ramified legs*, Mini-workshop for young number theorists, KIAS
- July 2022 *Introduction to prismatic cohomology*, 2022 UNIST Summer Workshop on Langlands Program, UNIST

Teaching assistantships

(All of my teaching assistantships were at KAIST.)

Fall 2023 Calculus II (MAS102) and Linear Algebra (MAS212)
Spring 2023 Calculus II (MAS102) and Linear Algebra (MAS212)
Fall 2022 Calculus I (MAS101) and Calculus II (MAS102)
Spring 2022 Modern Algebra (MAS311)
Fall 2021 Calculus II (MAS102) and Linear Algebra (MAS212)
Spring 2021 Calculus I (MAS101) and Calculus II (MAS102)
Fall 2020 Introduction to Algebraic Geometry (MAS441)
Spring 2020 Introduction to Linear Algebra (MAS109) and Algebra I (MAS511)
Fall 2019 Calculus II (MAS102)
Spring 2019 Calculus I (MAS101)