Andrew Kwon

Department of Mathematics
University of Pennsylvania
David Rittenhouse Laboratory
Philadelphia, PA 19104

email: akwon@upenn.edu
website: https://andrewokwon.github.io

Positions

October 2025   Postdoctoral Fellow, Perelman School of Medicine
with Gregory Grant and Shaon Sengupta

Education

May 2025   PhD in Mathematics, University of Pennsylvania
Advisor: Florian Pop

May 2019   BSc in Mathematics, Carnegie Mellon University

Research Interests

Biology: Chronobiology and tool development
Mathematics: Galois theory, arithmetic geometry, decidability and computation

Awards and Honors

2025   Carlitz-Zippin Dissertation Prize
2019 - 2024   NSF Graduate Research Fellowship
2018   Goldwater Scholar
2017   William Lowell Putnam Competition Honorable Mention

Publications & Preprints

A. Kwon, *Convergent Decomposition Groups and the $\mathfrak{S}$-adic Shafarevich Conjecture*, in preparation.

A. Kwon, *A Note on Diophantine Subsets of Large Fields,* preprint, arXiv:2411.03212.

A. Kwon, *A Note on Minimal Additive Complements,* Discrete Mathematics, 342 (7) (2019) 1912-1918.

M. Asada, R. Chen, E. Fourakis, Y. Kim, A. Kwon, J. D. Lichtman, B. Mackall, S. J. Miller, E. Winsor, K. Winsor, J. Yang, and K. Yang, *Lower-Order Biases in Second Moments of Dirichlet Coefficients in Families of L-Functions,* Experimental Mathematics, 32 (2023), 431-456.

Talks

Mar. 2025	Emory Algebra and Number Theory Seminar
Nov. 2024	Penn Galois Seminar
Oct. 2024	Anabelian Geometry and Representations of Fundamental Groups @ MFO
Sep. 2024	Philadelphia Area Number Theory Seminar
Jul. 2024	FRG Workshop on Definability, Decidability, and Computability @ Cambridge
Dec. 2023	Penn Algebra Seminar

Teaching

Summer 2023   *Instructor of Record*
University of Pennsylvania
Designed lectures, problem sets, and assessments for Introduction to Calculus.

2020 - 2021   *Teaching Assistant*
2024 - 2025   University of Pennsylvania
Taught section/graded problem sets for Multivariable Calculus.

2016 - 2019   *Teaching Assistant*
Carnegie Mellon University
Taught section/graded problem sets for: Concepts of Mathematics (3x), Linear Algebra.

Employment

2018   *Research Intern*
National Security Agency
Applied and extended language modeling and n-gram techniques to a high-priority classified project.

Service and Activities

2024 - 2025	Co-organizer Penn-Temple Algebra Day
2024	Academic Committee GTA Philadelphia Conference at Temple
2022 - 2024	Co-organizer Graduate Algebraic Geometry Seminar, University of Pennsylvania
2021	Instructor Princeton Prison Teaching Initative
2021 - 2024	Mentor Penn Directed Reading Program
2020, 2022	Teaching Assistant Penn Summer Math Academy
2018 - 2020	Referee Journal of Number Theory, Publicationes Mathematicae Debrecen