Sangjun Ko

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Education

PhD in Mathematics August 2022–Present
Penn State University, State College, PA

BS in Mathematics and Computer Science September 2018– May 2022
Rutgers University–New Brunswick, New Brunswick, NJ
Rutgers Honors College, Minor in Japanese.
Cumulative GPA: 3.939/4.000

Research Experience

DIMACS REU Summer 2021
Undertook an undergraduate research project on Morse flow trees and Morse complexes under the supervision of Chris Woodward.
Project website: https://reu.dimacs.rutgers.edu/~sk2082/

Teaching

At Penn State:

- Fall 2023: Instructor. Math 251 (Ordinary and Partial Differential Equations), Sections 6 and 16.
- Summer 2023: TA. CMPSC/Math 451 (Numerical Computations), WEB section.

At Rutgers University:

- Spring 2022: Grader. Math 311 (Introduction to Real Analysis I), Sections H1 and 4.
- Fall 2021: Grader. Math 311 (Introduction to Real Analysis I), Sections 1 and 4.
- Spring 2021: Grader. Math 311 (Introduction to Real Analysis I), Section 1.
- Fall 2020: Grader. Math 300 (Introduction to Mathematical Reasoning), Section 1.

Awards and Honors

- Jack and Eleanor Pettit Scholarship in Science, Fall 2023
  Penn State Eberly College of Science.
- University Graduate Fellow, Penn State University. Spring 2023

- Paul Berg and Daniel J. Larson Distinguished Graduate Fellowship, Eberly College of Science, Penn State University. September 2022
- Verne M. Willaman Distinguished Graduate Fellowship in Science, Penn State University. September 2022
- Graduated from Rutgers University with highest honors in mathematics. May 2022
- Maurice M. and Adrienne R. Weill Scholarship, Rutgers University Math Department. May 2022
- School of Arts and Science Excellence Award, Rutgers University. 2021
- Henry Rutgers Scholarship, Rutgers University. 2018–2022
- Rutgers Trustee Scholars, Rutgers University. 2018–2022

Talks and Presentations

- *A Topological Proof of Euclid's Theorem*, talk for the Rutgers Undergraduate Math Association, March 2022.
- *Morse Flow Trees and Chain Complexes*, part of the DIMACS REU, July 2021.
- *Poincaré Metric*, presentation for the Undergraduate Math Seminar, March 2021.
- *Arithmetic Functions and Divergence of* $\sum 1/p$, presentation for the Directed Reading Program, May 2020.
- *Center of Mass*, presentation for the Freshman-Sophomore Seminar, April 2020.

Service and Outreach

- Organizer/instructor for Topology qualifying exam preparation session. Fall 2023
- Peer tutor in calculus 1 and 2, and introductory computer science. Spring and Fall 2020.

Miscellaneous

- Languages: Native level fluency in English and Korean, Working proficiency in Japanese.
- Other languages: LaTeX, Java, MATLAB, Kotlin, Python