

# Sangjun Ko

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## Education

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### 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

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### 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

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At Penn State:

- 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

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- University Graduate Fellow, Penn State University. Spring 2023
- Paul Berg and Daniel J. Larson Distinguished Graduate Fellowship, September 2022  
Eberly College of Science, Penn State University.
- Verne M. Willaman Distinguished Graduate Fellowship in Science, September 2022  
Penn State University.

- 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

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- *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

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- Instructor for “Sumongus 300,” a mini-course aimed at freshmen to get a crash course on introductory mathematical reasoning in preparation for a proficiency exam. Lecture videos can be found [here](#). Winter 2021.
- Peer tutor in calculus 1 and 2, and introductory computer science. Spring and Fall 2020.

## Miscellaneous

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- Languages: Native level fluency in English and Korean, Working proficiency in Japanese.
- Other languages: L<sup>A</sup>T<sub>E</sub>X, Java, MATLAB, Kotlin, Python