

SANGMIN KO

Department of Mathematics
Columbia University
2990 Broadway, New York, NY 10027

sk4682@columbia.edu
smko77.github.io
github.com/smko77

RESEARCH INTERESTS

Chromatic homotopy theory and algebraic K -theory.

EDUCATION

2019–present **Ph.D. in Mathematics**, Columbia University
 Advisor: Andrew Blumberg
 On leave for military service, Summer 2020 – Summer 2023
2019–2020 **M.A. in Mathematics**, Columbia University
2015–2019 **B.S. in Mathematics**, Pohang University of Science and Technology (POSTECH)
 Graduated with the highest honors

SEMINARS ORGANIZED

Spring 2026 [Manifolds and Homotopy Theory](#), Columbia University
 Co-organized with Azélie Picot and Carlos Alvarado
Fall 2025 [Chromatic Homotopy Theory](#), Columbia University
 Co-organized with Azélie Picot and Carlos Alvarado
Spring 2025 [Learning Seminar on Prismatic Cohomology](#), Columbia University
 Co-organized with Vidhu Adhiketty
Fall 2024 [Learning Seminar on Stable Homotopy Theory](#), Columbia University

CONFERENCES AND SUMMER SCHOOLS ATTENDED

Jul. 2026 Homotopy Theory, Derived Categories, and Quadratic Forms, Lens
Jun. 2026 European Talbot 2026, Kolding
Sep. 2025 European Autumn School in Topology 2025, Utrecht
Jun. 2025 Masterclasses on Arithmetic and Homotopy Theory, Copenhagen
Dec. 2024 SLMATH Hot Topics: Life after the Telescope Conjecture, SLMATH
Nov. 2024 AMTRaK: Dualizable Categories and Continuous K -Theory, Johns Hopkins University
Nov. 2024 Midwest Topology Seminar, University of Chicago
Aug. 2024 Young Topologists Meeting 2024, University of Münster
Jul. 2024 PCMI 2024 Graduate Summer School: Motivic Homotopy Theory, PCMI
Mar. 2024 Workshop on p -adic Arithmetic Geometry (Spring), IAS
Mar. 2024 Mid-Atlantic Topology, Northeastern University

TEACHING

Columbia University

New York, NY

Graduate Teaching Assistant, 2019–present

Spring 2026 Introduction to Modern Algebra I

Fall 2025 Calculus II

Spring 2025 Calculus III

Fall 2024 Linear Algebra

Spring 2024 Linear Algebra; Algebraic Number Theory (*graduate course*)

Fall 2023 Complex Variables

Directed Reading Program, Columbia University

New York, NY

Graduate mentor, 2024–present

Fall 2024 Fundamental group and covering spaces (*Keir Dorchen*)

Spring 2024 De Rham cohomology (*Zoe Curewitz*)

POSTECH

Pohang, Korea

Undergraduate teaching assistant and tutor, 2016–2018

Fall 2018 Differential Equations (*teaching assistant*)

Spring 2018 Probability and Statistics (*teaching assistant*)

2017–2018 Abstract Algebra I (*tutor*)

2016–2018 General Topology (*tutor*)

Spring 2017 Calculus (*tutor*)

HONORS AND FELLOWSHIPS

2019–present Graduate Student Scholarship, Kwanjeong Educational Foundation

2017–2019 Undergraduate Scholarship, Korea Foundation for Advanced Studies (KFAS)

2015–2019 Presidential Fellowship, Program for Highly Dedicated Students, POSTECH
Sole recipient from the class of 2019

2015–2019 National Scholarship for Science and Engineering, Korea Student Aid Foundation (KOSAF)

PROFESSIONAL EXPERIENCE

2020–2023 **Machine Learning Researcher**, ScatterLab, Seoul, Korea
Research on large language models and text-to-image diffusion models
Served as Research Personnel (alternative military service)

SERVICE

2025–2027 President, Columbia KSEA (Korean-American Scientists and Engineers Association)

LANGUAGES

Korean (native), English (fluent).