Hyuk Jun Kweon

Contact Information	27-218, Building 27, Seoul National University 1 Gwanak-ro, Gwanak-gu, Seoul 08826, South Korea	$+82\text{-}10\text{-}9982\text{-}8055$ kweon $7182@\mathrm{snu.ac.kr}$
EMPLOYMENT	Seoul National University, Seoul, South Korea	

BK Research Fellow Jun. 2025 – Present

University of Georgia, Athens, GA

Limited Term Assistant Professor Jan. 2023 - May. 2025

Massachusetts Institute of Technology, Cambridge, MA

Research Specialist Limited (One-year bridge postdoc)

Aug. 2021 - Jul. 2022

National Institute for Mathematical Sciences, Daejeon, South Korea

Technical Research Personnel Mar. 2015 - Apr. 2018

• Alternative military service

• Managing a SageMath notebook server

• Providing mathematical outreach programs

EDUCATION Massachusetts Institute of Technology, Cambridge, MA

Ph.D. in Mathematics

Sep. 2018 - Jun. 2021

Sep. 2012 - Aug. 2014

Advisor: Bjorn Poonen

(Leave of absence is due to compulsory military service)

Pohang University of Science and Technology, Pohang, South Korea

B.S. in Mathematics

B.S. in Computer Science and Engineering Mar. 2008 - Feb. 2012

• Double Major

• Summa Cum Laude

PUBLICATION A Generalised Effective GCD Theorem (with Madhavan Venkatesh), submitted

Maximum Overlap Area of Several Convex Polygons Under Translation (with Honglin Zhu), The 36th Canadian Conference on Computational Geometry (CCCG 2024)

Maximum overlap area of a convex polyhedron and a convex polygon under translation (with Honglin Zhu), The 39th International Symposium on Computational Geometry (SoCG 2023)

Bounds on the Torsion Subgroup Schemes of Néron-Severi Group Schemes, Advances in Mathematics 409 (2022): 108687.

Bounds on the Torsion Subgroups of Néron-Severi Groups, Trans. Amer. Math. Soc. 374 (2021), pp. 351-365.

Overlap of convex polytopes under rigid motion (with Hee-Kap Ahn; Siu-Wing Cheng and Juyoung Yon), Computational Geometry 47, no. 1 (2014): 15-24

Awards and Honors	AMS-Simons Travel Grants Scholarship for Doctoral Study, Samsung Foundation Scholarship, STX Foundation Governmental Scholarship, Korea Student Aid Foundation 6th Place, ACM-ICPC Korea Regional Programming Contest 4th Place, ACM-ICPC Korea Regional Programming Contest	July. 2023 - Jun. 2025 Sep. 2012 - Jun. 2021 Mar. 2011 - Feb. 2012 Mar. 2008 - Feb. 2011 Nov. 2010 Nov. 2009
Teaching	5th Place, ACM-ICPC Korea Regional Programming Contest Calculus III for Engineering (MATH2500)	Nov. 2008 Jan. 2025 - May. 2025
	Lecturer, University of Georgia	·
	Complex Variables (MATH4150) Lecturer, University of Georgia	Aug. 2024 - Dec. 2024
	Precalculus (MATH1113) Lecturer, University of Georgia	Aug. 2024 - Dec. 2024
	Calculus II for Science and Engineering (MATH2260) Lecturer, University of Georgia	Jan. 2024 - Apr. 2024
	Calculus I for Science and Engineering (MATH2250) Lecturer, University of Georgia	Aug. 2022 - Dec. 2023
	Precalculus (MATH1113) Lecturer, University of Georgia	Jan. 2022 - May. 2022
	Multivariable Calculus (18.02) Recitation Leader, Massachusetts Institute of Technology	Feb. 2021 - May. 2021
	Calculus (18.01A/18.02A) Recitation Leader, Massachusetts Institute of Technology	Sep. 2020 - Dec. 2020
	Calculus of Several Variables (18.022) Recitation Leader, Massachusetts Institute of Technology	Sep. 2019 - Dec. 2019
	Differential Equations (MATH200) Recitation Leader, Pohang University of Science and Technolog	Mar. 2012 - Jun. 2012
	Complex Variables (MATH310) Recitation Leader, Pohang University of Science and Technolog	Aug. 2011 - Dec. 2011
RESEARCH TALKS	Number Theory Seminar, University of Georgia	May. 2025
	Canadian Conference on Computational Geometry, Brock Univ	versity Jul. 2024
	PAlmetto Number Theory Series XXXVI, Clemson University	Oct. 2023
	Number Theory Seminar, University of Georgia	Apr. 2023
	Southern Regional Number Theory Conference, Louisiana State University	
	Number Theory Seminar, University of Georgia	Aug. 2022
	Korea Institute for Advanced Study	Oct. 2022
	POSTECH-PMI Number Theory Seminar, POSTECH	Apr. 2022
	Johns Hopkins Junior Number Theory Days, Johns Hopkins Union	niversity Dec. 2021
	2021 Korean Mathematical Society Annual Meeting	Oct. 2021
	Ohio State Number Theory Seminar, Ohio State University	Mar. 2021

	AMS Special Session, Spring Eastern Sectional Meeting, Brown University	Mar. 2021
	Binghamton Arithmetic Seminar, Binghamton University	Mar. 2021
	Korea Institute for Advanced Study	Jan. 2020
Expository Talks	Proof of the amplification principle 2 STAGE, Massachusetts Institute of Technology	May. 2022
	Alterations STAGE, Massachusetts Institute of Technology	Nov. 2020
	Formal Groups as Functors STAGE, Massachusetts Institute of Technology	Sep. 2019
	Division by 2 on Hyperelliptic Curves Preprint Seminar, Massachusetts Institute of Technology	Dec. 2018
	Review of Étale Cohomology STAGE, Massachusetts Institute of Technology	Sep. 2018
	On the Fary-Milnor theorem, following the existing literatures SCV Seminar, Pohang University of Science and Technology	Nov. 2010
ACADEMIC SERVICE	Co-organizer of STAGE (Seminar on Topics in Arithmetic, Geometry, Etc.), MIT	Spring 2022
	Co-organizer of STAGE (Seminar on Topics in Arithmetic, Geometry, Etc.), MIT	Fall 2021
	Co-organizer of STAGE (Seminar on Topics in Arithmetic, Geometry, Etc.), MIT	Fall 2020