

# Ikhan Choi

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## EDUCATION

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<b>University of Tokyo</b> Ph.D. program in Mathematical Science	Apr 2025 – Now
<b>University of Tokyo</b> M.S. in Mathematical Science	Apr 2023 – Mar 2025
<b>Pohang University of Science and Technology</b> B.S. in Mathematics (Early graduation: leave of absence for three years including military service)	Mar 2016 – Aug 2022
<b>Seoul Science High School</b> (Specialized high school for gifted students)	Mar 2013 – Feb 2016

## RESEARCH INTERESTS

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Functional analytic features of bivariant K-theories and noncommutative topology from the viewpoint of homotopy theory, and their applications to representation theory and mathematical physics.

## PUBLICATIONS

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- I. Choi, *A solution to Haagerup's problem and positionve Hahn-Banach separation theorems in operator algebras*, preprint, arXiv: 2501.16832. (Master's thesis)
- I. Choi, *Curved folding and planar cutting of simple closed curve on a conical origami*, Kodai Math. J., 39-3 (2016) 579-595. (High school thesis)

## AWARDS AND HONORS

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Research Fellowship for Young Scientists (Doctoral Course) Japan Society for the Promotion of Science (JSPS)	Apr 2026 – Mar 2028
Dean's Award M.S. in Graduate School of Mathematical Science at the University of Tokyo	Mar 2025
Japanese Government (MEXT) Scholarship Embassy recommendation, Research student	Apr 2023 – Mar 2026
Gold Prize in 38th Mathematics Competition for University Students in Korea 1st group for math majors Sponsored by Korean Mathematics Society	Nov 2019

## TALKS

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<i>KK-theory as a stable infinity category</i> Matsuyama, Functional Anaysis Conference (Junior)	3 Sep 2025
<i>A solution to Haagerup's problem on normal weights</i> Kyoto, Operator Algebraists' Symposium: Recent Developments in Operator Algebras (invited)	24 Sep 2025
Seoul, KIAS Seminars (invited)	14 Jul 2025
Seoul, China-Japan-Korea Conference on Functional Analysis	8 July 2025
Kyoto, Kyoto Operator Algebra Seminars (invited)	6 Jun 2025
Tokyo, Operator Algebra Seminars at the University of Tokyo (invited)	13 May 2025
<i>Unbounded KK-theory</i> Sapporo, Functional Anaysis Conference (Junior)	18 Sep 2025

TEACHING

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Teaching Assistant: Geometry II	Fall 2024
Teaching Assistant: Complex Analysis I	Fall 2023
Student Mentoring: MATH 423 Introduction to Differential Geometry	Fall 2019

OTHER SKILLS AND QUALIFICATIONS

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Korean (native), Japanese (fluent), English (proficient)