

JINHYUN BAEK

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EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

Mar. 2022 - Current

B.S. in Electrical Engineering / B.S. in Physics (double major)

GPA: 3.90/4.3

Military Service: Aug.2024 – May.2026 (Defence Counterintelligence Command, DCC)

RESEARCH INTERESTS

High speed optical interconnects

Silicon photonics

Photonic quantum computing

RESEARCH EXPERIENCE & PUBLICATIONS

Ultrafast Spin Dynamics Lab (Physics department, KAIST)

Dec. 2023 – Jul.2024

Advisor: Prof. Kab-Jin Kim

Topic: Electrical spectroscopy of propagating spin wave based on flip-chip technique

PRESENTATIONS (INTERNATIONAL)

“Wavevector-resolved electrical spectroscopy of propagating spin wave based on flip-chip technique”, 2024 ICMFS, Perugia, Italy (Jul. 2024) - Poster, **Jinhyun Baek**, Moojune Song, Phuoc Cao Van, Mujin You, Jiseok Yang, Geun-Hee Lee, Yubin Ji, Youngseon Soon, Donghyeon Lee, Sanghoon Kim, Jong-Ryul Jeong, Albert Min Gyu Park, and Kab-Jin Kim

PRESENTATIONS (DOMESTIC)

“Excitation and Detection of Propagating Spin Waves using Flip-Chip Technique”, 2024 KPS Spring Meeting, Dajeon, Korea (Apr. 2024) - Poster, **Jinhyun Baek**, Moojune Song, Phuoc Cao Van, Mujin You, Jiseok Yang, Geun-Hee Lee, Yubin Ji, Youngseon Soon, Donghyeon Lee, Sanghoon Kim, Jong-Ryul Jeong, Albert Min Gyu Park, and Kab-Jin Kim

PROJECTS

App developing for blocking distractions (app: Waterfall)

Adaptive metronome system for guitar practices (Clap)

HONORS AND AWARDS

Creative award for Air-force start-up challenge	May. 2025
Korean Physics Society - Outstanding presentation award (Poster session)	Apr. 2024
KAIST Presidential Fellowship (KPF)	Jan. 2024 – Current
KAIST Alumni Scholarship	Mar. 2023 - Current
National Science & Technology Scholarship, Republic of Korea	Mar. 2022 - Current

TECHNICAL STRENGTHS

Programming	C, C++, Python, MATLAB, Dart
Simulations	Mumax3(micromagnetics)
Fabrication	Photolithography, Physical Vapor Deposition
Instruments	VNA, AFM

LANGUAGES

English (proficient) – TOEFL 5.5 / 6.0 (110/ 120), GRE V:162 Q:170 AW:4.0

Japanese (limited) - JLPT N3

Korean (native)

OTHER ACTIVITIES

- **Clubs**

Official cheerleading team of KAIST (director & performer) Mar. 2022 – Nov. 2023

Electrical Engineering department Newsletter (reporter) Aug. 2023 – Dec. 2023

- **Sports**

Tennis