

Yubin Kim

cosmos2718@ewha.ac.kr — 010-2327-0166 — linkedin — personal webpage

RESEARCH INTERESTS

Astrophysics, Gravitational wave, Multi-messenger astronomy, Artificial intelligence, Astro-informatics

EDUCATION

Ewha Womans University, Seoul, South Korea

Mar. 2020 – Feb. 2026 (Anticipated)

Bachelor of Science in Physics

Minors in Mathematics and Philosophy

Cumulative GPA: 3.86 / 4.30

Relevant Coursework

Astrophysics (A+, 2025), Particle Physics (A+, 2024), Computational Physics (A+, 2023)

Numerical Analysis (2024), Scientific Computation Programming (2024), Astrodynamics (2023)

RESEARCH EXPERIENCE

Undergraduate Research Intern, Computational Astrophysics Lab

Ulsan National Institute of Science and Technology

Supervisors: Prof. Kyujin Kwak

Ulsan, South Korea

July 2025 — Present

Undergraduate Research Intern, Human-Centered Artificial Intelligence Lab

Seoul National University

Supervisors: Prof. Hyunggu Jung

Seoul, South Korea

Jan. 2024 — Feb. 2025

Undergraduate Research Intern, Astrophysics Lab

Ewha Womans University

Supervisors: Prof. Chungle Kim

Seoul, South Korea

Dec. 2022 — Nov. 2023

PUBLICATIONS

Journal paper

- Seong, G., **Kim, Y.**, Kwak, K., Ahn, S., Park, C., Hahn, K. I., & Kim, C. (2024). 12C+12C Reaction Rates and the Evolution of a Massive Star. *Journal of The Korean Astronomical Society*, **57**(2), 115–122. (Co-first author, Published) <https://doi.org/10.5303/JKAS.2024.57.2.115>
- Kim, Y.** & Jung, H. “Applications of Deep Learning in Gravitational Wave Data Quality Studies: A Systematic Review.” (First author, Submitted)
- Kim, Y.**, Min, J. & Jung, H. “Capability of Multimodal Large Language Models to Describe Gravitational Wave Images.” (First author, Submitted)

Proceeding

- Kim, Y.**, Moon, Y., Son, J., Park, M., Min, J., & Jung, H. (2025). Analysis of the Tools for Measuring and Visualizing AI Model Carbon Emissions: A Systematic Review. *Proceedings of the HCI Korea Conference*, Gangwon, South Korea. (Oral Presentation, Co-first author)

AWARDS AND SCHOLARSHIPS

Undergraduate Major Leadership Scholarship, Ewha Womans University

Fall 2023, Fall 2024

Korea Toray Science Foundation Scholarship

Spring 2024

Ewha Womans University Department of Physics Alumni Scholarship

Spring 2022, Fall 2023

KB Foundation Scholarship for Basic Science

Spring 2023

Jicheon Scholarship, Ewha Womans University

Fall 2022, Spring 2022

Dean’s List, Ewha Womans University

2021 Fall, 2022 Spring & Fall, 2023 Fall, 2024 Fall, 2025 Spring

EXTRACURRICULAR ACTIVITIES

Academic and Leadership Activities

- Student Assistant, 111th Spring Meeting of the Korean Astronomical Society
 - Participant, Gravitational-Wave and Numerical Relativity Summer School
- Apr. 2025
2023, 2024

- Participant, Gravitational-Wave and Numerical Relativity Winter School 2023
- Oral Presentation (1st Place), College of Natural Sciences Academic Festival, Ewha Womans University 2023
- Executive Member, Department of Physics Student Council, Ewha Womans University 2022–2023
- Member, EPAD (Ewha Physics Academic Club), Ewha Womans University 2022
- Member, ECC (Ewha Central Computer Club), Ewha Womans University 2021

Teaching and Outreach Activities

- Private Math Tutor for High School Students, QANDA Online Tutoring Platform Mar. 2025–Present
- Peer Tutor, Ewha Womans University 2025
- High School Outreach Volunteer, Ewha Womans University 2023
- Math Tutor for High School Students, Dragon Math Academy (Part-time) June 2022 – Dec. 2022

ENGLISH TESTS

TOEFL iBT: 97 (R: 29, L: 25, S: 22, W: 21) June 2025
 OPIc (Oral Proficiency Interview): IH (Intermediate High) Mar. 2025

SKILLS

Programming Languages : Python

Mahine Learning Frameworks : Pytorch, Tensorflow, Scikit-learn

Research Tools : LaTeX (academic writing and editing), Jupyter