HYERIN CHO (조혜린)

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EDUCATION

Center for Astrophysics Harvard & Smithsonian Ph.D. Candidate in Astronomy and Astrophysics Advisor: Professor Ramesh Narayan	Sep. 2020 - (May 2026)
Center for Astrophysics Harvard & Smithsonian Master of Arts in Astronomy and Astrophysics	Sep. 2020 - May 2023
GIST(Gwangju Institute of Science and Technology), cum laude B.S. Physics Major / Math Minor	Mar. 2015 - Feb. 2020
California Institute of Technology Study Abroad Program	Sep. 2017 - Dec. 2017

PUBLICATIONS

Google Scholar, arXiv, ads

First-author articles

- 1. **Cho** et al. 2025 submitted to ApJ, "Bridging Scales in Black Hole Accretion and Feedback: Relativistic Jet linking the Horizon to the Host Galaxy"
- 2. **Cho** and Narayan 2025 submitted to ApJ, "Variability in Black Hole Accretion: Dependence on Rotational and Magnetic Energy Balance"
- 3. Cho et al. 2024 ApJ, 977, "Multizone Modeling of Black Hole Accretion and Feedback in 3D GRMHD: Bridging Vast Spatial and Temporal Scales"
- 4. Cho et al. 2023 ApJL, 959, "Bridging Scales in Black Hole Accretion and Feedback: Magnetized Bondi Accretion in 3D GRMHD"
- 5. Cho and Narayan 2022 ApJ, 932, "Analytical Model of Disk Evaporation and State Transitions in Accreting Black Holes"
- 6. Cho et al. 2020 ApJL, 891, "Spectropolarimetric analysis of FRB 181112 at microsecond resolution: Implications for Fast Radio Burst emission mechanism"

Co-authored articles

- 1. Su, ... Cho, ... 2025 ApJL, 981, "Bridging Scales: Coupling the Galactic Nucleus to the Larger Cosmic Environment"
- 2. Sutinjo, ... Cho, ... 2023 ApJ, 954, "Calculation and Uncertainty of Fast Radio Burst Structure Based on Smoothed Data"
- 3. Scott, Cho, ... 2023 A&C, 44, "CELEBI: The CRAFT Effortless Localisation and Enhanced Burst Inspection pipeline"
- 4. Bhandari, ..., **Cho**, ... 2020 ApJL, 901, "Limits on precursor and afterglow radio emission from a fast radio burst in a star-forming galaxy"
- 5. Sammons, ..., Cho, ... 2020 ApJ, 900, "First constraints on compact dark matter from Fast Radio Burst microstructure"
- 6. Prochaska, ..., Cho, ... 2019 Science, 366, "The low density and magnetization of a massive galaxy halo exposed by a fast radio burst"

AWARDS & FELLOWSHIPS

ACCESS Maximize (PI: Ramesh Narayan, AST080028)	Oct. 2024 - Sep. 2025
ACCESS Explore (PI: Hyerin Cho, PHY230079)	Jun. 2023 - Jun. 2024
Ilju Foundation Study Abroad Scholarship	Aug. 2020 - Jul. 2024

Selected as 1 of 6 recipients nationwide in Korea across all disciplines for a prestigious doctoral scholarship ($\sim $120,000$ USD over four years) awarded to support Ph.D. studies abroad.

Talent Award of Korea (대한민국인재상)

Dec. 2020

Awarded by the South Korean government to outstanding young leaders demonstrating excellence, creativity, and public service. Selected as one of the top national recipients representing Korea's next-generation talent.

GIST Outstanding Thesis Award (우수논문상) Feb. 2020 GIST Future Research Talent Award (미래인재상) Feb. 2020 Korea National Science and Engineering Scholarship (국가이공계장학금) Mar. 2015 - Feb. 2020

A scholarship to fund full tuition for 8 semesters from Korea Student Aid Foundation, Ministry of Education

Curtin Institute of Radio Astronomy (CIRA) Summer Studentship Dec. 2018 - Feb. 2019 Caltech Summer Undergraduate Research Fellowship Jun. 2018 - Aug.

TEACHING EXPERIENCE

Teaching Assistant Harvard AY17 Galactic and Extragalactic Astronomy (undergraduate course)	Sep. 2022 - Dec. 2022
Teaching Assistant Harvard AY200 Radiative Processes in Astrophysics (graduate course)	Sep. 2021 - Dec. 2021
Teaching Assistant GIST MM4016 Introduction to Topology (4th-year course)	Sep. 2019 - Dec. 2019
Teaching Assistant GIST PS3101 Electromagnetism II (3rd-year course)	Mar. 2018 - Jun. 2018

ETC.

Language Korean (native), English (fluent)

Hobbies Yoga, Run, Dance