

Hyeonguk Bahk

Curriculum Vitae

📍 Seoul National University | ✉ bahkhyeonguk@gmail.com | 🏠 hbahk.github.io | 💎 박형욱 / Hyeonguk Park

Research Interests

- Formation and Evolution of Galaxy Clusters
- Observational Cosmology
- Dynamics of Galaxy Clusters
- Galaxy Redshift Survey and Instruments
- Active Galactic Nuclei and Supermassive Black-hole

Educations

2021.09 – Present: Ph.D. student in Astronomy, Seoul National University, Korea (Advisor: Prof. Ho Seong Hwang)

2015.03 – 2021.08: B.S. in Astronomy, Seoul National University, Korea.

Fellowship & Scholarships

2024.03 – Present: Next-Generation Scholar Fellowship, Seoul National University.

2023.09 – 2024.02: Brain Korea 21 (BK21), Korea Research Foundation.

2022.03 – 2023.08: Graduate Student Instructor (GSI) Scholarship, Seoul National University.

2021.09 – 2022.02: Brain Korea 21 (BK21), Korea Research Foundation.

2015.03 – 2021.08: Yongwoon Scholarship, Yongwoon Scholarship Foundation.

Teaching Experience

2023.03 – Present: Teaching Assistant, Techniques in Astronomical Observation (graduate course), Seoul National University.

2021.09 – 2022.12: Teaching Assistant, Astronomical Observation and Lab (undergraduate course), Seoul National University.

Service & Community Outreach

2022.09 – 2023.05: Scientific Reviewer, FUNdamental SCIENCE LECTure (FunSciLec) Project, Knowledge Awakening On Stage (KAOS) Foundation.

2022.05 – 2023.02: Editorial Team Member and Scientific Reviewer, K-MOOC Astronomy Program, Seoul National University.

2019 Apr – 2020 Nov: Military Service (Auxiliary Police).

Publications

3. **Hyeonguk Bahk** and Ho Seong Hwang. UPCluster-SZ: The Updated Catalog of Galaxy Clusters from the List of Planck Sunyaev–Zel’dovich Sources. *ApJS*, 272(1):7, May 2024. doi: 10.3847/1538-4365/ad323f
2. Jaejin Shin, Jong-Hak Woo, Tohru Nagao, Minjin Kim, and **Hyeonguk Bahk**. Strong Correlation between Fe II/Mg II Ratio and Eddington Ratio of Type 1 Active Galactic Nuclei. *ApJ*, 917(2):107, August 2021. doi: 10.3847/1538-4357/ac0adf
1. **Hyeonguk Bahk**, Jong-Hak Woo, and Daeseong Park. Calibrating Mg II-based Black Hole Mass Estimators with $H\beta$ Reverberation Measurements. *ApJ*, 875(1):50, April 2019. doi: 10.3847/1538-4357/ab100d