

## Hyeonguk Bahk

### Curriculum Vitae

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

### Research Interests

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- 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

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**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

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**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

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**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

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**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 (112 Strike Force, Auxiliary Police).

### Publications

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3. **Hyeonguk Bahk** and H. S. Hwang. Upcluster-sz: The updated catalog of galaxy clusters from the list of planck sunyaev–zel’dovich sources. *The Astrophysical Journal Supplement Series*, 272(1):7, apr 2024. doi: 10.3847/1538-4365/ad323f. URL <https://dx.doi.org/10.3847/1538-4365/ad323f>
2. J. Shin, J.-H. Woo, T. Nagao, M. Kim, and **Bahk, Hyeonguk**. Strong Correlation between Fe II/Mg II Ratio and Eddington Ratio of Type 1 Active Galactic Nuclei. , 917(2):107, Aug. 2021. doi: 10.3847/1538-4357/ac0adf
1. **Bahk, Hyeonguk**, J.-H. Woo, and D. Park. Calibrating Mg II-based Black Hole Mass Estimators with H $\beta$  Reverberation Measurements. , 875(1):50, Apr. 2019. doi: 10.3847/1538-4357/ab100d