

Kyeong-Yoon (Yoony) Baek kybaek@g.harvard.edu

Current Position

• Ph.D. candidate, Dept. of Physics, Harvard University (Advisor: Julia A. Mundy)

Education & Employment History

- 2022 present: Harvard University, Ph.D. candidate in Physics
- 2015 2022: Seoul National University, B.Sc. summa cum laude in Physics (minors: Philosophy)

Honors & Activities

- 2022 Present: Overseas PhD Scholarship, Korea Foundation for Advanced Studies
- 2023 2024: Harvard Quantum Initiative Generation Q G2 Graduate Fellowship, Harvard University
- 2019 2021: SNU Honorable Dean's List, Seoul National University
- 2015 2021: The Korea Presidential Science Scholarship, Korea Student Aid Foundation
- 2017 2019: Military Service, Republic of Korea Air Force

Interests

- Thin film synthesis of quantum materials
- Spectroscopy including X-ray absorption spectroscopy (XAS), X-ray magnetic circular dichroism (XMCD), and resonant inelastic X-ray scattering (RIXS)
- Structural studies including X-ray diffraction (XRD) and coherent Bragg rod analysis (CoBRA)

Ideas for Advocacy for the User Community

With its recent upgrade, I believe APS-U can expand opportunities for early-stage graduate students by offering proposal writing seminars that encourage early engagement with beamline science and make the application process more accessible. As an international graduate student, I am particularly mindful of the importance of maintaining transparency in user information for researchers of all nationalities and institutional backgrounds. As a student member of the APS users' executive committee, I will promote to make sure that all voices in the user community are heard, including those from smaller or less-established research groups that may have had limited access to national user facilities. My own work at APS has spanned both spectroscopy at 7-ID and structural characterization at 12-ID, and I am passionate about promoting interdisciplinary collaboration. To support this, I propose hosting virtual sessions where graduate students can share candid, firsthand experiences from their beamtime, helping to demystify the user process and build peer connections. I am also enthusiastic about promoting the capabilities of the APS upgrade, particularly its enhanced brilliance and coherence, and will actively encourage students to explore how their research could benefit from emerging beamlines such as 28-ID CHEX. Overall, I will advocate collaborative opportunities, equitable access to resources, and broader awareness of the transformative potential APS-U brings to the user community.