EUNGWANG SEO

Room 253, Kelvin Building, University Avenue, Glasgow, G12 8QQ, United Kingdom
eungwang-astro.github.io 0000-0002-8588-4794 e.seo.1@research.gla.ac.uk

EDUCATION

University of Glasgow, United Kingdom *2022-2026 (expected)*
Ph.D. in Physics and Astronomy
Thesis: Gravitational Lensing of Gravitational Waves: From Searches to Cosmology and Population Inference
Advisor: Martin Arthur Hendry and Graham Woan

The Chinese University of Hong Kong, Hong Kong *2019-2022*
M.Phil. in Physics
Thesis: Detecting and Interpreting Lensed Gravitational Waves Using Bayesian Inference
Advisor: Tjonnie Guang Feng Li and Otto Akseli Hannuksela

Kyunghee University, South Korea *2013-2019*
B.S. in Astronomy and Space Science, *summa cum laude (valedictorian)*

AWARDS AND HONORS

- Graduate School Mobility Funding Scholarship, University of Glasgow (£3k) *2024*
- Peter MacGuire Bequest (now Lord Kelvin Fund), University of Glasgow (£2k) *2023*
- College of Science and Engineering Scholarship, University of Glasgow (tuition fee + annual stipend) *2022*
- President's Award (Valedictorian), Kyunghee University *2019*
- KSSS Award for honored graduates, The Korean Space Science Society *2019*
- Dean's list, Kyunghee University *2013-2018*

PRESENTATIONS

<Invited Presentations>

1. **KU Leuven GW Seminar**, *Leuven, Belgium* *Oct. 2025*
Strong lensing of dark sirens and galaxies as a probe of the Hubble constant

2. **UC Louvain GW Seminar**, *Louvain-la-Neuve, Belgium* *Oct. 2025*
Direct measurement of the Hubble constant from strongly lensed dark sirens via the Hubble–Lemaître law

3. **Korea Astronomy and Space Science Institute Seminar**, *Daejeon, South Korea* *Apr. 2024*
Detecting and interpreting lensed gravitational waves using Bayesian inference

4. **Chinese University of Hong Kong Summer School**, *Hong Kong SAR* *Aug. 2023*
Gravitational-wave strong lensing and microlensing

5. **Korean Gravitational Wave Group monthly Colloquium**, *Seoul, South Korea* *Nov. 2021*
Searching for microlensing signatures in gravitational waves

<Contributed Presentations>

1. **13$^{\text{th}}$ Belgium-Dutch Gravitational-Wave Meeting**, *Nijmegen, the Netherlands* *Oct. 2025*
Residual test to search for microlensing signatures in strongly lensed gravitational waves

2. **National Astronomy Meeting 2025**, *Durham, England* *Jul. 2025*
Detection of microlensing imprints in strongly lensed gravitational wave events using residual analysis

3. **SUPA Cormark Meeting 2023**, *Glasgow, Scotland* *Dec. 2023*
Rejection sampling for mapping model-independent parameters to lens-model-dependent properties

4. **Amaldi15**, *Online* *Jul. 2023*
Inferring properties of dark galactic halos using strongly lensed gravitational waves

<Poster Presentations>

1. **GR24 / Amaldi16**, *Glasgow, Scotland* *Jul. 2025*
Lens-model-independent analysis of strongly lensed and microlensed gravitational waves

2. **LIGO-Virgo-KAGRA Collaboration Meeting**, *Melbourne, Austrailia* *Mar. 2025*
Residual test to search for microlensing signatures in strongly lensed gravitational waves

3. **Theo Murphy meeting: Multi-messenger Gravitational Lensing**, *Manchester, England* *Mar. 2024*
Constraining lens model parameters of strongly lensed gravitational waves with multiple lens models

4. **LIGO-Virgo-KAGRA Collaboration Meeting**, *Toyama, Japan* *Sep. 2023*
Gravitational lensing aided luminosity distance estimation for compact binary coalescences

5. **National Astronomy Meeting 2023**, *Cardiff, Wales* *Jul. 2023*
Reducing distance uncertainties for binary black holes by accounting for lensing

6. **LIGO-Virgo-KAGRA Collaboration Meeting**, *Chicago, IL, USA* *Mar. 2023*
Inferring properties of dark galactic halos using strongly lensed gravitational waves

7. **Asia-Pacific School and Workshop on Gravitation and Cosmology 2020** , *Daejeon, South Korea* *Feb. 2020*
Estimating dark halo mass using lensed gravitational waves

WORK EXPERIENCE AND SERVICE

Paper Reviewer *2020-present*
- Physical Review D

Analysis & Review roles (Analyst; Editorial Team Member; P&P, Code, and Results Reviewer) *2021-present*
- LIGO-Virgo-KAGRA Collaboration and Lensing Group

Visiting Researcher *2024*
- Niels Bohr Institute, Copenhagen

Research Assistant *2022*
- Ewha Womans University, Seoul

Undergraduate Internship *2017*
- Seoul National University, Seoul

TEACHING EXPERIENCE

Graduate Teaching Assistant

1. School of Physics and Astronomy, University of Glasgow *Jan. 2023 - Present*
- Astronomy 1 Lab and Astronomy 2 Lab

2. Department of Physics, The Chinese University of Hong Kong *Sep. 2019 - Jun. 2021*
- Electromagnetic Theory 1, Introduction to Astronomy and Astrophysics, and Statistical Mechanics

EXTRACURRICULAR ACTIVITIES

Student President of the Department of Astronomy and Space Science, *Kyunghee University* *2017*

Full-time Military Service in Korean Navy *2014 - 2016*

TECHNICAL COMPETENCIES

Programming: C++, Fortran90, IDL, Python
Software & Tools: **GW Physics:** Bilby, golum, Gravelmaps, gwcosmo, GWPopulation, GWpy, PyCBC
Other astrophysics: CAMB, COLOSSUS, IRAF, Pyhalo

REFEREES

Prof. Martin Arthur Hendry, University of Glasgow martin.hendry@glasgow.ac.uk
Prof. Tjonnie Guang Feng Li, KU Leuven tjonnie.li@kuleuven.be