

Marcie (Jae Yeon) Mun
Research School of Astronomy & Astrophysics
Australian National University, Canberra
ACT 2611, Australia

Last updated: 28th November, 2024
jaeyeon.mun@anu.edu.au
ORCID: [0000-0002-3706-9955](https://orcid.org/0000-0002-3706-9955)
Website: <https://jymarcie.github.io>

Education

- **Australian National University (ANU)** Canberra, Australia
Ph.D. in Astronomy & Astrophysics *Mar 2021 - Feb 2025*
 - **Thesis:** *Evolution of the spatially resolved star formation activity of galaxies across cosmic time in observations and simulations*
 - **Primary supervisor:** A/Prof. Emily Wisnioski
 - **Co-supervisors:** Dr. Andrew Battisti, Dr. Trevor Mendel, Prof. Sara Ellison
- **Seoul National University (SNU)** Seoul, Korea
M.S. in Astronomy *Mar 2018 - Aug 2020*
 - **Thesis:** *Star Formation Activity of Galaxies Undergoing Ram Pressure Stripping in the Virgo Cluster*
 - **Advisors:** Prof. Myung Gyoon Lee, Dr. Ho Seong Hwang
- **University of California, Los Angeles (UCLA)** Los Angeles, CA, USA
B.S. in Astrophysics *Sep 2012 - Jun 2016*

Research Appointments

- **Korea Astronomy and Space Science Institute (KASI)** Daejeon, Korea
Visiting Researcher *Sep 2020 - Feb 2021*
 - **Project title:** *Role of galaxy-galaxy interactions on the evolution of galaxy properties in IllustrisTNG*
 - **Host:** Dr. Ho Seong Hwang

Teaching Experience

- **Seoul National University (SNU)** Seoul, Korea
Graduate Teaching Assistant *Mar 2019 - June 2019 / Mar 2020 - June 2020*
 - **Course:** *Techniques in Astronomical Observation*
 - Covered topics ranging from basics of data reduction, aperture and PSF photometry, deep field photometry, to long-slit spectroscopy, along with the basics of IRAF and SExtractor.

Publications

I used to publish under the name of Mun, Jae Yeon, but now publish under either Mun, Marcie or Mun, M. Please refer to this [ADS Library](#) for an easily accessible list of all my publications.

First-author publications

- **Mun, M.**, Wisnioski, E., Harborne, K.E., Lagos, C.D.P., Valenzuela, L.M. et al. (2024), *The MAGPI Survey: radial trends in star formation across different cosmological simulations in comparison with observations at $z \sim 0.3$* , submitted to MNRAS ([arXiv:2411.17882](#))
- **Mun, M.**, Wisnioski, E., Battisti, A.J., Mendel, J.T., Ellison, S.L., et al. (2024), *The MAGPI Survey: evolution of radial trends in star formation activity across cosmic time*, MNRAS, 530, 5072
- **Mun, J.Y.**, Hwang, H.S., Lee, M.G., Chung, A., Yoon, H., Lee, J.C. (2021), *Star Formation Activity of Galaxies Undergoing Ram Pressure Stripping in the Virgo Cluster*, JKAS, 54, 17

Co-author publications

- Park, H.-J., Battisti, A.J., Wisnioski, E., Cortese, L., Seibert, M., — 6 authors — **Mun, M.**, et al. (2024), *The spatially resolved relation between dust, gas, and metal abundance with the TYPHOON survey*, MNRAS, 535, 729
- Mai, Y., Croom, S.M., Wisnioski, E., Vaughan, S.P., Varidel, M.R., — 2 authors — **Mun, M.**, et al. (2024), *The MAGPI Survey: the evolution and drivers of gas turbulence in intermediate-redshift galaxies*, MNRAS, 533, 3878
- Derkenne, C., McDermid, R.M., D'Eugenio, F., Foster, C., Khalid, A., — 6 authors — **Mun, M.**, et al. (2024), *The MAGPI Survey: Massive slow rotator population in place by $z \sim 0.3$* , MNRAS, 531, 4602
- Chen, Q.-H., Grasha, K., Battisti, A.J., Wisnioski, E., Mendel, T., — 4 authors — **Mun, M.**, et al. (2024), *The MAGPI Survey: effects of spiral arms on different tracers of the interstellar medium and stellar populations at $z \sim 0.3$* , MNRAS, 527, 2991
- Bagge, R.S., Foster, C., Battisti, A., Bellstedt, S., **Mun, M.**, et al. (2023), *The MAGPI Survey: Drivers of kinematic asymmetries in the ionised gas of $z \sim 0.3$ star-forming galaxies*, PASA, 40, 60
- Lee, J.H., Lee, M.G., **Mun, J.Y.**, Cho, B., Kang, J. (2022), *A GMOS/IFU Study of Jellyfish Galaxies in Massive Clusters*, ApJ, 940, 24
- Lee, J.H., Lee, M.G., **Mun, J.Y.**, Cho, B., Kang, J. (2022), *Enhanced Star Formation Activity of Extreme Jellyfish Galaxies in Massive Clusters and the Role of Ram Pressure Stripping*, ApJL, 931L, 22

Presentations

Conference talks / Colloquia

- **Nov 2024.** Seminar (Universitäts-Sternwarte München, Germany)
- **Nov 2024.** *A decade of discoveries with MUSE and beyond* (ESO Garching, Germany)
- **Nov 2024.** Galaxies Discussion Group Talk (Kavli Institute for Cosmology, Cambridge, United Kingdom)
- **Oct 2024. (Invited)** ASA¹ *Early Career Researcher (ECR) Chapter Symposium Series* (Macquarie University, Sydney, Australia)
- **Oct 2024.** Astro Seminar (University of New South Wales, Sydney, Australia)
- **Jun 2024.** ASTRO 3D² *Science Legacy Meeting* (Sydney, Australia)
- **Sep 2023.** *Galaxy Transformation Across Space and Time – 3rd ESO-Australia Meeting* (Canberra, Australia)
- **Jul 2023.** *ASA Annual Science Meeting 2023* (Macquarie University, Sydney, Australia)
- **Sep 2022.** *Epoch of Galaxy Quenching 2022* (Kavli Institute for Cosmology, Cambridge, United Kingdom)
- **Aug 2022.** *IAU Symposium 373: Resolving the Rise and Fall of Star Formation in Galaxies* (Busan, Korea)
- **Aug 2021. (Invited)** *Korean Young Astronomers Meeting (K-YAM) Colloquium* (Online)
- **Feb 2021.** *Galaxy Evolution Workshop 2020* (Academia Sinica Institute of Astronomy and Astrophysics, Taipei, Taiwan; Online)

Awards

ANU RSAA Olin J Eggen Research Award (2,500 AUD)	2023–2024
<i>– For excellence in research by an international PhD student in astronomy & astrophysics</i>	
ANU RSAA Supplementary Scholarship	2021–2024
ANU PhD Scholarship	2021–2024
Korean Astronomical Society (KAS) Rising Star Award (500,000 KRW)	2021
<i>– For best student paper published in the Journal of the Korean Astronomical Society (JKAS) in the first half of 2021</i>	
SNU Merit-Based Scholarship	2018, 2019

¹Astronomical Society of Australia

²ASTRO 3D: ARC Centre of Excellence for All Sky Astrophysics in 3 Dimensions

Observing Proposals

Co-I *Influence of the environment in shaping galaxies at the $z \sim 0.3$ transitional epoch*

(PI: Barsanti, S.)

- AAT/AAOmega+2dF: A/2023A/07 – 4 nights; A/2023B/06 – 2.5 nights; A/2024A/04 – 1 night; total: 7.5 nights

Co-I *Spectroscopic Mapping of Jellyfish Galaxies in Massive Galaxy Clusters with GMOS/IFU*

(PI: Lee, J.H.)

- Gemini North/GMOS: GN-2021A-Q-205 – 11.4 hours

Co-I *Dissecting the Most Extreme Jellyfish Galaxy F0083 in a Very Massive Galaxy Cluster Abell 2744 with GMOS/IFU* (PI: Lee, J.H.)

- Gemini South/GMOS: GS-2019B-Q-219 – 8.4 hours

Services

ASTRO 3D ANU Student Representative Apr 2022 - Mar 2024

– *Point of contact for student concerns at the ANU node of ASTRO 3D*

ASTRO 3D Student Committee Chair Apr 2023 - Mar 2024

– *Lead the national committee to run student workshops for networking & career development opportunities*

Research Skills

Programming Languages

- Python, IDL, Bash

Software

- IRAF, SExtractor, GALFIT, LEPhARE, PSFEX, TOPCAT

Data & Simulations

- **Instruments:** Multi-Unit Spectroscopic Explorer (MUSE)
- **Simulations:** EAGLE (GADGET3/ANARCHY), MAGNETICUM (GADGET3), ILLUSTRISTNG (AREPO)

Collaborations/Memberships

- MAGPI (Middle Ages Galaxy Properties with Integral Field Spectroscopy)
- ASTRO 3D (ARC Centre of Excellence in All Sky Astrophysics in 3 Dimensions)
- ASA (Astronomical Society of Australia)