Marcie (Jae Yeon) Mun

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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., 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, accepted
- 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 ~ 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

- 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)
ANU RSAA Supplementary Scholarship
ANU PhD Scholarship
Korean Astronomical Society (KAS) Rising Star Award (500,000 KRW) 2021 – For best student paper published in the Journal of the Korean Astronomical Society (JKAS) in the first half of 2021
SNU Merit-Based Scholarship

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

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)