

Hye-Jin Park

Postdoctoral Researcher
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Academic qualifications	Ph.D. in Astronomy Australian National University, Australia	Mar. 2022-Dec. 2025
	<i>Thesis: "Linking optical IFU data with multi-wavelength data : Probing the evolution of stars, gas, and dust in galaxies"</i>	
	<i>Advisor: Dr. Andrew Battisti</i>	
	M.Sc. in Astronomy and Space Science Sejong University, South Korea	Aug. 2021
	<i>Thesis: "Gas Dynamics and Star Formation in NGC 6822"</i>	
	<i>Advisor: A/Prof. Se-Heon Oh</i>	
	B.Sc. in Astronomy and Space Science Chungnam National University, South Korea	Aug. 2019
	- Study Abroad Program Boise State University, USA	Jan.-May 2017

Academic Employment History	Postdoctoral Researcher CEA Paris-Saclay, Gif-sur-Yvett, France	Dec. 2025-pres.
	<i>Supervisor: Prof. Frédéric Galliano</i>	
	Post-MSc Research Assistant Sejong University, South Korea	Sept. 2021-Jan. 2022
	<i>Supervisor: A/Prof. Se-Heon Oh</i>	
	Graduate Research Assistant Sejong University, South Korea	Sept. 2019-Aug. 2021
	<i>Supervisor: A/Prof. Se-Heon Oh</i>	
	Undergraduate Research Assistant Chungnam National University, South Korea	Aug. 2018-Aug. 2019
	<i>Supervisor: Prof. Young Sun Lee</i>	

Awards	Name	Type	Amount (USD)	Year
	RSAA Travel Fund	Travel	\$0.3k	2025
	UWA/ICRAR Seminar Series Travel Fund	Travel	\$1k	2025
	RSAA Best Annual Review talk	Award	\$0.2k	2024
	ASTRO3D ¹ Travel support	Travel	\$11k	2022-2024
	ASA ECR Symposium Travel Grant	Travel	\$0.2k	2024
	RSAA Best Annual Review talk	Award	\$0.2k	2022
	ANU PhD Scholarship	Scholarship	–	2022-pres.
	RSAA Supplementary Scholarship	Scholarship	–	2022-pres.
	CNU Prize for Undergraduate Excellence	Prize	–	2019
	Changwon-si General Scholarship	Scholarship	\$1.5k	2019
	CNU Merit Scholarship	Scholarship	\$4.5k	2018-2019
	CNU Creative Korea Scholarship	Scholarship	\$0.85k	2018
	CNU Global Talent Scholarship	Scholarship	\$3k	
	CNU Jeongsimwha Scholarship	Scholarship	\$0.6k	

Observing Proposals	Period	Telescope	PI(s)	Time allocated
	2024A	ALMA	A.Man	33.7 hrs (1)
	2024A	AAT	H.-J.Park & A.Battisti	21 nights (2)
	(1) co-I of “Gas fractions of Early Type Galaxies at $z=0.3$ from the MAGPI survey” (Program ID: 2024.1.00034.S)			
	(2) PI of “Probing dust, gas, and metal in dwarf galaxies by linking AAOmega-KOALA IFU and Herschel” (Program ID: A/2024A/13)			

Observing Experience	Period	Telescope/Instrument	Location	Time
	Jan.-Mar. 2024	AAT/KOALA	Coonabarabran, Australia	21 nights

¹The ARC Centre of Excellence for All Sky Astrophysics in 3 Dimensions 

Publications

Summary: 12 papers in total

Publication library on ADS [↗](#)

First-authored (N: 4; citation: 28)

1. **Park H-J.**, Battisti A.J., Marchal A., Cortese L., Wisnioski E., Seibert M., Kim S-J., McClure-Griffiths N., de Blok W.J.G., Grasha K., Madore B. F., Rich J. A., Beaton R. L.
“Exploring the potential for kinematically colder H_I component as a tracer for star-forming gas in nearby galaxies” (2025, *MNRAS*, 540, 2623P)
2. **Park H-J.**, Battisti A.J., Wisnioski E., Cortese L., Seibert M., Grasha K., Madore B.F., Groves B., Rich J. A., Beaton R. L., Chen Q-H., Mun M., McClure-Griffiths N. M., de Blok W.J.G., Kewley L.
“The spatially resolved relation between dust, gas, and metal abundance with the TYPHOON survey” (2024, *MNRAS*, 535, 729P)
3. **Park H-J.**, Kim S., Kim S-J., van Putten M.
“On the Mass Function of GWTC-2 Binary Black Hole Systems and Their Progenitors” (2022, *ApJ*, 938, 69)
4. **Park H-J.**, Oh S-H., Wang J., Zheng, Y., Zhang H-X., de Blok W.J.G.
“Gas Dynamics and Star Formation in NGC 6822” (2022, *AJ*, 164, 82P)

Co-authored (N: 9)

1. Kim S-J., Marchal A. McClure-Griffiths N. M., Dawson J. R., Dempsey J., Dénes H., Dickey J. M., Gibson S. J., Jameson K., Kemp I., Lee B., Lee M-Y., Leroy A. K., Lynn C., Ma Y. K., Miville-Deschenes M-A., Muller E. G. M., Murray C., Nguyen H., Pingel N. **Park H-J.**, Stanimirović S., Uscanga L., and van Loon J. Th.
“A Detailed GASKAP-HI View of Shells and Loops in the Magellanic Bridge” (submitted - under first revision)
2. Sextl E., Kudritzki R-P., Bresolin F., Grasha K., **Park H-J.**, Chen Q-H., Battisti A. J., Seibert M., Madore B. F., Rich J. A.
“The TYPHOON Stellar Population Synthesis Survey. II. Pushing Full-Spectral Fitting to the Limit in the Nearby Grand Design Barred Spiral M83” (2025, *A&A*, 987, 138S)
3. Foster C., Donoghoe M. W., Battisti A.J., D’Eugenio F., Harborne K., Venville T., Lagos C. D. P., Mendel T., Bagge R., Barsanti S., Bellstedt S., Boecker A., Chen Q-H., Derkenne C., Ferré-Mattheu A., Gjergo E., Gupta A., Muller E. G. M., Santucci G., **Park H-J.**, Remus R-S., Thater S., van de Sande J., Vaughan S., Brough S., Croom S. M., Valenzuela L. M., Wisnioski E.
“The MAGPI Survey: the kinematic morphology-density relation (or lack thereof) and the Hubble sequence at $z \sim 0.3$ ” (2025, *PASA*, 42, 22)
4. Battisti A.J., Shivaee I., **Park H-J.**, Decleir M., Calzetti D., Mathew J., da Cunha E.
“Constraining the link between the 2175Å dust absorption feature and PAHs in Nearby Star-Forming Galaxies using SWIFT/UVOT and JWST/MIRI” (2025, *PASA*, 42, 22B)
5. Chen Q-H., Grasha K., Battisti A. J., Wisnioski E., Li Z., **Park H-J.**, Groves B., Torrey P., Mendel T., Madore B. F., Seibert M., Sextl E., Garcia A. M., Rich J. A., Beaton R. L., Kewley L. J.
“Quantifying azimuthal variations within the interstellar medium of spiral galaxies with the TYPHOON survey” (2024, *MNRAS*, 534, 883C)
6. Mun M., Wisnioski E., Battisti A., J., Mendel T. J., Ellison S., L., Taylor E. N., Lagos C. D. P., Harborne K. E., Foster C., Croom S. M., Bellstedt S., Barsanti S., Gupta A., Valenzuela L. M., Chen Q-H., Grasha K., Mukherjee T., **Park H-J.**, Sharda P., Sweet S. M., Remus R-S., Zafar T.
“The MAGPI survey: evolution of radial trends in star formation activity across cosmic time” (2024, *MNRAS*, 530, 5072M)
7. Chen Q-H., Grasha K., Battisti A. J., Wisnioski E., Mendel T., Sharda P., Santucci G., Li Z., Foster C., Mun M., **Park H-J.**, Tsukui T., Sharma G., Lagos C. D. P., Barsanti S., Valenzuela L. M., Gupta A., Thater S., Jin Y., Kewley L.


“The MAGPI survey: effects of spiral arms on different tracers of the interstellar medium and stellar populations at $z \sim 0.3$ ” (2024, MNRAS, 527, 2991C)

8. Kim S-J., Oh S-H., Wang J., Staveley-Smith L., Koribalski B. S., Kim M., **Park H-J.**, Kim S., Spekkens K., Westmeier T., Wong O. I., Meurer G. R., Kamphuis P., Catinella B., McQuinn K. B. W., Bigiel F., Holwerda B. W., Rhee J., Lee-Waddell K., Deg N., Verdes-Montenegro L., Bi-Qing, Madrid J. P., Dénes H., Elagali A.

“WALLABY Pilot Survey: H I gas kinematics of galaxy pairs in cluster environment” (2023, MNRAS, 519, 318K)

9. Koo J-R., Lee Y. S., **Park H-J.**, Kim Y. K., Beers T. C.

“Determination of Sodium Abundance Ratio from Low-resolution Stellar Spectra and Its Applications” (2022, ApJ, 925, 35K)

Press Release **Park H-J.**, Kim S., Kim S-J., van Putten M., 2022, Sejong Press Release
“The origin of the supermassive black hole binaries using GWST-2” 


Professional Members ASA (Astronomical Society of Australia) 2024-pres.
MAUVE (Multiphase Astrophysics to Unveil the Virgo Environment) survey 2023-pres.
MAGPI (A MUSE Large Program to study galaxies in the middle ages) survey 2022-pres.
TYPHOON survey (Large FoV IFU survey for nearby galaxies) 2022-pres.
WALLABY (The Widefield ASKAP L-band Legacy All-sky Blind surveyY) survey 2020-pres.




Select Talks	Name	Type	Date	Location
	2024 Dust and Gas across Cosmic Time	Poster/Sparkler	Dec. 2024	Hiroshima, Japan
	ASA ECR Seminar Series at Macquarie Univ.	Invited talk	Nov. 2024	Sydney, Australia
	2024 ASA Annual Science Meeting	Contributed talk	June 2024	Online
	The 3rd Australia-ESO meeting	Contributed talk	Sept. 2024	Canberra, Australia
	ANU Astronomy Society ASTRO3D Symposium	Invited talk	Aug. 2023	Canberra, Australia
	3D view of Galaxies Online Series	Contributed talk	Aug. 2023	Online
	2023 ASTRO3D Science Meeting	Sparkler talk	June 2023	Perth, Australia
	2023 Coordinated Surveys of the Southern Sky	Contributed talk	Mar. 2023	Garching, Germany
	2022 Mount Stromlo Student Seminar	Contributed talk	Nov. 2022	Canberra, Australia
	IAU-General Assembly	Contributed e-talk	Aug. 2022	Busan, S. Korea
	2021 KAS ² Spring Meeting	Contributed talk	Apr. 2021	Online
	Workshops on Environment effects	Contributed talk	Feb. 2021	Online

Research skills Programming Languages:
- Python, IDL (basic), fortran (basic)
Software:
- Radio: CASA, GIPSY, 3D-Barolo, BAYGUAD, ROHSA
- Optical: nGIST
- Photometry-related: MAGPHYS, SKIRT-PTS, Swarp, IRAF, TOPCAT

Teaching & Outreach Outreach team, Australian National University, Australia 2024
- *Introducing Mt Stromlo Observatory to visiting school (year 6-12)*
MSATT³ program, Australian National University, Australia 2023
- *Year 8 student supervision for astronomical data analysis (Alexander Rickard-Ryan)*
“I Carinae: hydrogen line analysis by spectroscopy; distance derivation using photometry”
Introduction to Astronomy, Sejong University, South Korea 3 semesters, 2020-2021
- *Marking (~ 200 non-astronomy students in total)*
Radio Astronomy, Sejong University, South Korea 1 semester, 2020
- *Running practical sessions with HI 21 cm data (~ 30 3rd year astronomy students)*

²Korean Astronomical Society

³McNamara-Saunders Astronomical Teaching Telescopes 

Community, Professional Services	ANU Seminar Committee		2024
	ANU Astronomy and Astrophysics Distinguished Visitor Committee		2024
	2023 Mount Stromlo Student Writing Retreat Organiser		2023
	- <i>RSAA Strategy Initiatives scheme (\$14k)</i>		
	The 3rd Australia-ESO meeting LOC 		2023
	2022 Mount Stromlo Student Seminar Committee 		2022
	- <i>ASTRO3D Conference support (\$1.6k)</i>		
	- <i>RSAA Conference support (\$0.2k)</i>		
	- <i>Ozgrav Conference support (\$0.4k)</i>		
	- <i>ANU PARSA Conference support (\$0.6k)</i>		
	2021 Radio Summer School LOC 		2021
References	Dr. Andrew Battisti	University of Western Australia, Australia	
	Associate Prof. Emily Wisnioski	Australian National University, Australia	
	Associate Prof. Se-Heon Oh	Sejong University, South Korea	