

LILIAN LAI YEE LEE (李麗儀)
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Research Interests

Galaxy formation and evolution, high-redshift galaxies, gas kinematics, dynamical modelling, galaxy structures, gravitational lensing, dark matter

Education

Max-Planck-Institut für extraterrestrische Physik (MPE) **2021 – Present**
PhD Student. Thesis topic: Dynamics of High Redshift Galaxies, Interfacing, Observation and Theory *Garching, Germany*
Advisors: Prof Dr Reinhard Genzel, Dr Linda Tacconi, Dr Natascha Förster Schreiber

The University of Hong Kong (HKU) **2018 – 2020**
MPhil. in Astrophysics. Thesis topic: Examining the smoothness of Einstein Rings *Pokfulam, Hong Kong*
Advisors: Dr Jeremy Lim, Prof Thomas Broadhurst

The University of Hong Kong (HKU) **2014 – 2018**
BSc in Physics and Astronomy (Double Major) *Pokfulam, Hong Kong*
Bachelor Thesis: Study of Brightest Cluster Galaxies Alignment in 14 CLASH Clusters
Advisor: Dr Jeremy Lim

Research Positions

Undergraduate Research Assistant **May – Aug 2016–18**
Star formation history of BCGs in the CLASH/HST survey *HKU, Hong Kong*

Awards

HKU Postgraduate Scholarships (ca. USD 58k) **Sep 2018 – Aug 2020**
Best Poster Presenter Award Research Colloquium for Science Undergraduate Students **May 2018**
Lo Kwee Seong Education Foundation Travel and Conference Grants **2018**

Presentations and Conferences

Conferences & Workshops:

Lorentz workshop: Synergistic ALMA+JWST view of the early Universe **Dec 2–6 2024**
Invited talk *Leiden, the Netherlands*

International Astronomical Union (IAU) General Assembly XXXII **Aug 13–15 2024**
Contributed conference talk *Cape Town, South Africa*

European Astronomical Society (EAS) Annual Meeting **Jul 1–5 2024**
Contributed conference talk *Padova, Italy*

Galaxy Evolution at High Resolution **Jun 23–26 2024**
Invited talk *Schloss Ringberg, Germany*

Resolving the Extragalactic Universe with ALMA & JWST **Nov 6–10 2023**
Contributed conference talk *Tokyo, Japan*

Shedding New Light on the First Billion Years of the Universe **Jul 3–7 2023**
Conference poster *Marseille, France*

In Situ View of Galaxy Formation 2 **July 24 – 29 2022**
Conference poster *Schloss Ringberg, Germany*

Colloquia & Seminars:

Seminar **Mar 26–28 2025**
Invited talk *Universidad de Concepción, Concepción, Chile*

MPE Science Days <i>Invited talk</i>	Nov 26–27 2024 <i>MPE, Garching</i>
DAWN Cake Talk <i>Invited talk</i>	Oct 4 2024 <i>Copenhagen, Denmark</i>
TGHz ALMA Meeting <i>Seminar talk</i>	28 Apr 2024 <i>ESO, Garching</i>
IR Group Tea Talk <i>Seminar talk</i>	2021–24 <i>MPE, Garching</i>
Postgraduate seminar <i>Seminar talk</i>	14 Dec 2020 <i>HKU(remote), Hong Kong</i>
Research Colloquium for Science Undergraduate Students <i>Colloquium talk</i>	18 April 2018 <i>HKU, Hong Kong</i>

Approved Grants and Observing Proposals as Co-I

- ALMA, Cycle 11, 2024.1.01443.S, ‘The molecular gas properties of giant star-forming clumps in a $z = 2.2$ MS galaxy’, 25.3 hrs (PI: R. Herrera-Camus)
- JWST*, Cycle 3, #5974, ‘ORCHIDS: ORigin of the [C II] Halos In Distant Systems’, 43.2 hrs (PI: Manuel Aravena & J. Gonzalez Lopez)
- JWST*, Cycle 2, #4265, ‘Unveiling the interplay between the circumgalactic and interstellar media in a complex protocluster environment at $z = 4.5$ ’, 17.0 hrs (PI: J. Gonzalez Lopez)
- IRAM/NOEMA, W23, W23DA, ‘Resolved [CII] Kinematics and ISM Properties of $z > 6$ Galaxies – II: Pilot High-Resolution Mapping’, 35 hrs (PI: N.M. Förster Schreiber)
- IRAM/NOEMA, W23, W23CR, ‘Into the heart of darkness’, 32 hrs (PI: J. Chen)
- VLT, ERIS, GTO program, ‘GALPHYS: The Internal Drivers of Galaxy Evolution at Cosmic Noon’ (PI: N.M. Förster Schreiber)
- VLT, ERIS, Period 110, 0110.A-1028(A&B), ‘Dissecting the Most Massive Strongly Lensed SFGs (Pilot)’, 2 hours (PI: D. Liu)
- RGC General Research Fund (GRF), Hong Kong, 17304519 (2019–2023), ‘Astrophysical Applications of Gravitational Lensing: Nature of Dark Matter and Galaxies in the early Universe’, ca. USD 110k (PI: J. Lim)

Observing Experience

ESO, Very Large Telescope, ERIS (7 nights)	16–19 Feb 2024, 2–8 Apr 2025 <i>Paranal Observatory, Chile</i>
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Teaching

Teaching Assistant of the following courses: <i>PHYS2055 Introduction to Special Relativity, PHYS3651 Physical Universe, PHYS4652 Planetary Science</i>	2018–2020 <i>HKU</i>
Certificate in Teaching and Learning in Higher Education	2018 <i>CETL, HKU</i>

Professional Training and Other Research Experience

ERIS2022: European Radio Interferometry School <i>Summer school</i>	Sep 18–23 2022 <i>Dwingeloo, the Netherlands</i>
International Summer School on the Interstellar Medium of Galaxies <i>Summer school</i>	Jul 12–23 2021 <i>Remote</i>
Astrostatistics Summer School <i>Summer school</i>	Jun 1–5 2021 <i>Penn State (Remote)</i>
Experiential learning trip at Max-Planck-Institut für Astronomie <i>Summer school</i>	Jun 19–26 2017 <i>Heidelberg, Germany</i>

Service

Organiser of MPE IR/Galev Journal Club	2022 – Present
Referee for ALMA proposal evaluation (Distributed Peer Review)	Cycle 10, 2023
Local organising committee	24 – 29 Jul 2022
<i>In Situ View of Galaxy Formation 2</i>	<i>Schloss Ringberg, Germany</i>
Coordinator of laboratory sessions of the following undergraduate courses:	Sep 2018 – Aug 2020
<i>Intro. Mechanics, Intro. Electricity and Magnetism, Heat and Waves, Intro. Quantum Physics</i>	<i>HKU, Hong Kong</i>

Others

Languages: Chinese (native, spoken: Cantonese, written: traditional Chinese), English (proficient), German (novice)

Academic References

Dr Dr h.c. Natascha Förster Schreiber

PhD Thesis Supervisor

Senior Research Scientist, Max-Planck-Institut für extraterrestrische Physik, Garching, Germany

Doctor of Science, honoris causa, University of Bath

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Prof Dr Reinhard Genzel

PhD Thesis Supervisor

2020 Nobel Laureate in Physics

Co-director, Max-Planck-Institut für extraterrestrische Physik, Garching, Germany

Professor, Ludwig-Maximilians-Universität

Emeritus Professor, University of California, Berkeley

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Dr Linda Tacconi

PhD Thesis Supervisor

Senior Research Scientist, Max-Planck-Institut für extraterrestrische Physik, Garching, Germany

European Southern Observatory (ESO) Council President (2020–2023)

Foreign Member of the Royal Swedish Academy of Sciences

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Dr Rodrigo Herrera-Camus

External Collaborator

Associate Professor, Universidad de Concepción (UdeC), Concepción, Chile

Max Planck Partner Group Leader (MPE-UdeC)

Director, Millenium Nucleus for Galaxias (MINGAL)

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