

Jerome Pitogo de Leon, Ph.D.

Postdoctoral researcher at The University of Tokyo

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🌐 <https://jpdeleon.github.io>

Overview

Research: Published 86 refereed papers mainly about exoplanets with 1,908 total citations, and an h-index of 28, as of 2025-11-01¹.

Teaching: Conducted 2 introductory courses in Astronomy for undergraduates; half of the class pursued graduate studies both in the Philippines and abroad.

Mentorship: Guided a dynamic research group consisting of 1 PhD, 3 master, and 2 undergraduate students in cutting-edge exoplanet research initiatives. Developed publicly available code for Astronomy research and instruction.

Outreach: Presented several invited talks over the years, contributing to both research and public outreach. Founded Astronomy group for fostering a passion for the cosmos.

Education

PhD, 2021 Department of Astronomy, The University of Tokyo, Japan.

Title: Discovery and Characterization of Transiting Exoplanets with Diverse Radii and Ages ([online version](#)). Advisor: [Prof. Motohide Tamura](#)

MSc, 2018 Department of Astronomy, The University of Tokyo, Japan.

Title: Multi-color Simultaneous Transit Observations of Low Density Hot Jupiters ([online version](#)). Advisor: Prof. Motohide Tamura

BSc, 2013

Department of Physics, University of the Philippines, Los Baños, Laguna, Philippines.

Title: Thermal Differential and Image Analysis of a Fabricated 11-cm Solar Telescope using an Active-Passive Cooling System. Advisor: [Dr. Rogel Mari Sese](#)

Full-time Work Experience

Project Assistant Professor (2025/4 - Present)

Komaba Institute for Science, Graduate School of Arts and Sciences, The University of Tokyo, Japan

Role: Management of observations and data analysis with [MuSCAT4](#) under the [Kiban S](#) project.

Project Research Assistant (2023/4 - 2025/3)

Department of Multi-Disciplinary Sciences, Graduate School of Arts and Sciences, The University of Tokyo, Japan

Role: Spearheading the discovery and in-depth characterization of young transiting exoplanets using the TESS telescope. Advisor: [Prof. Norio Narita](#) (Refer to [de Leon et al. 2023](#))

Project Research Assistant (2021/4 - 2023/3)

¹Publication data collected from [NASA Astrophysics Data System](#)

Department of Astronomy, Graduate School of Science, The University of Tokyo, Japan

Role: Led an international group of astronomers towards the discovery of 37 new transiting exoplanets using the Kepler telescope. Advisor: [Prof. Motohide Tamura](#) (Refer to [de Leon et al. 2021](#))

Research Development Assistant (2013/4-2014/6)

Regulus SpaceTech, Inc., Los Baños, Laguna, Philippines

Role: Initiated the software development for automating solar telescope control and data analysis. Advisor: [Dr. Rogel Sese](#)

Temporary Positions

Remote Lecturer (2021/6 - 2021/10)

Faculty of Aerospace Engineering, School of Engineering & Architecture, Ateneo de Davao University, Philippines

Role: Crafted and conducted lectures on Introduction to Astronomy & Astronomical Data Analysis.

Technical Assistant (2018/10-2019/3)

Engineering Department, The University of Tokyo, Japan

Role: Developed innovative image processing software for stitching featureless high-resolution images Advisor: [Assoc. Prof. Tomohiko Hayakawa](#) (Refer to [Murakami et al. 2018](#))

Research Assistant (2017/4-2018/3)

Department of Astronomy, The University of Tokyo, Japan

Role: Developed a robust pipeline for modeling and analyzing multi-wavelength transit light curves and provided mentorship to new research group members.

Research Student (2015/9-2016/3)

Department of Astronomy, Graduate University for Advanced Studies (SOKENDAI), Japan

Role: Worked on data reduction and analysis of high-resolution astronomical images and contributed to scientific report writing. Advisor: [Dr. Satoshi Mayama](#)

Intern (2014/7-2014/9)

Academia Sinica Institute for Astronomy and Astrophysics (ASIAA), Taipei, Taiwan

Role: Developed an image processing pipeline for the analysis of high-resolution images of a young forming star using the 8-m Subaru telescope. Advisor: [Dr. Michihiro Takami](#) (Refer to [de Leon et al. 2015](#))

Awards

2022/12: St. Joseph's Academy, Centennial Achiever's Award

2021/3: Philippine Embassy in Japan, Medal for distinguished Filipino Graduates

2018/4-2021/3: Ministry of Education, Culture, Sports (MEXT) PhD Scholarship (JPY 8.4M)

2016/4-2018/3: MEXT MSc Scholarship (JPY 5.6M)

2015/4-2016/3: MEXT Japanese Language and Research Scholarship (JPY 2.8M)

2015/10-2016/3: Research Grant from the Graduate University for Advanced Studies (JPY 0.2M)

2014/9: SanDisk Japan Scholarship (USD 3.75k, deferred)

2013/3: International Space University Scholarship (EUR 9k, deferred)

2011-Present: Received multiple travel grants to attend workshops in the US and Taiwan related to data science, and participated in research-related conferences and observation runs in the U.S., Europe, South Africa, and South-east Asia

Teaching and Mentorships

Designed and Taught Courses: Created and delivered two elective courses for 4th-year undergraduate Aerospace Engineering students at the [Ateneo de Davao University](#) during the 2nd semester of 2021.

Research Collaborations: Collaborated with M. Mori (Current postdoc) on the discovery and validation of a rare planet in the Neptune desert (Refer to [Mori et al. 2022](#)).

Pipeline Development: Wrote a public Python code for easily analyzing data from TESS telescope appropriate for research and instruction (Refer to github.com/jpdeleon/quicklook)

Thesis Advisory: Worked with H. Kobayashi (Former undergraduate student) to develop a pipeline for finding young transiting planets and binary stars in nearby star clusters (Refer to github.com/hiremasa/ytps). Also advised A. Nodado (Former student) on her undergraduate thesis focused on Mira variables.

MEXT Scholarship Guidance: Provided guidance to A. Javier and C. Cabatlao from their scholarship application to acceptance, supporting their successful pursuit of graduate studies in Japan.

Trainings and Workshops

<https://sites.google.com/g.ecc.u-tokyo.ac.jp/young-transiting-planet-worksh/home>, Ishigaki, Japan, Mar 12 - 15, 2025

<https://indico.narit.or.th/event/203/>, Chiang Mai, Thailand, Jun 24 - Jul 5, 2024

Japan Planetary Atmosphere Research Society workshop II, Atami, Japan, Mar 2023

Japan Planetary Atmosphere Research Society workshop, Matsushima, Miyagi, Japan, Mar 2022

RESCEU Symposium, From Protoplanetary Disks through Planetary System Architecture to Planetary Atmospheres and Habitability, Okinawa, Japan, Oct 14-18, 2019

1st NARIT-EACOA Summer workshop on Astrostatistics and Informatics, Chiang Mai, Thailand, Aug 13-17, 2019

Telluric Line Hack Week, Flatiron Institute, New York, USA, Feb 25-28, 2019

NASA Sagan Exoplanet Summer Workshop, NASA Exoplanet Science Institute, California Institute of Technology, Pasadena, California, USA, Jul 23-27, 2018

Japan Geoscience Union Meeting, Chiba, Japan, May 20-24, 2018

2nd Rencontres du Vietnam on Exoplanetary Science, Binh Dinh, Vietnam, Feb 2018

TIARA Summer School on Astrostatistics and Big Data, Taipei, Taiwan, Sep 4-8, 2017

Astronomy Hack Week, University of Washington, Seattle, USA, Aug 28- Sep 1, 2017

Protoplanetary Disk Dynamics and Planet Formation Workshop, Yokohama Institute for Earth Sciences, JAMSTEC, Kanagawa, Japan, Sep 29-Oct 2, 2015

27th Spring School in Particle and Fields, Chang Gung University, Taoyuan City, Taiwan, Apr 2-5, 2014

NARIT-KASI Radio Astronomy Winter School, Chiang Mai, Thailand, Jan 27-30, 2014

TEDx Diliman: Things that Matter, UP Diliman, Philippines, Oct 20, 2013
2nd Southeast Asian Astronomers Collaboration Meeting, Bandung, Indonesia, Nov 18-22, 2013
Sokendai Asian Winter School on Exoplanets, National Astronomical Observatory of Japan (NAOJ), Mitaka, Tokyo, Japan, Dec 3-5, 2012
1st Southeast Asian Astronomers Collaboration Meeting, Palawan, Philippines, Nov 5-7, 2012
Astronomy Training Workshop for Science Educators, Galileo Teacher Training Program (GTTP), UP Los Baños, Philippines, Apr 9-11, 2012
The Universe Survives– 2012, NIDO Science Discovery Center, SM Mall of Asia, Pasay City, Philippines, Feb 18 and 24, 2012
Search for Undiscovered Main Belt asteroids and other important NEO Observations International Asteroid Campaign (IASC), Philippines, Apr 20–May 20, 2012
29th Samahang Pisika ng Pilipinas (Physics Society of the Philippines) National Physics Congress, National Institute of Physics, College of Science, UP Diliman, Philippines, Oct 24-26, 2011
International Astronomical Union (IAU) Gala Night, NIDO Discovery Center, SM Mall of Asia, Pasay City, Philippines, Oct 21, 2011
Developing Astronomy Education and Research in the Philippines, UP Los Baños, Philippines, Oct 20, 2011

Field Work Experiences

2018-present: bi-monthly observations with MuSCAT2/TCS telescope, Teide Observatory, Tenerife, Spain (remote)
2022-2023: monthly remote observations with Subaru/IRD telescope intensive program (remote; PI: Norio Narita)
2018-2020: MuSCAT2/TCS telescope, Teide Observatory, Tenerife, Spain (on-site)
2018: SIRIUS/IRSF telescope, Sutherland, South Africa (on-site, 2 weeks)
2018: IRCS/Subaru telescope, Mauna Kea observatory, Hawaii, USA (on-site, 3 nights)
2017: CHARIS/Subaru telescope, Mauna Kea observatory, Hawaii, USA (on-site, 2 nights)
2017: HDS/Gemini telescope, Mauna Kea observatory, Hawaii, USA (on-site, 1 night)
2017-2019: MuSCAT2/OAO telescope, Japan (on-site, 20+ nights)

Outreach Activities

Resource speaker for the Philippine Astronomy Week 2024 led by PAGASA, Feb 2024
Featured at Pinoy Scientists in [Jan 2023](#)
Resource speaker for Science Week at De La Salle Integrated School, Mar 2022
Resource speaker for the Philippine Science High School-Western Visayas Campus, Mar 2021
Courtesy call by the Director of the Philippine Space Agency (PhilSA), Mar 2021
Invited speaker at National Institute of Physics, University of the Philippines Diliman (UPD), Jan 2020
Astronomy Over Coffee (self-funded Astronomy event) at UP Diliman Hotel, Sep 2019
Founding of Filipino Astronomy Community ([FAC](#); 2016)
Invited speaker at Philippine Rural High School, Los Banos, Apr 2014

Invited speaker at St. Joseph's Academy Sariaya High School, Apr 2013

Affiliations and Services

Monthly Notices of the Royal Astronomical Society ([MNRAS](#); Impact Factor: 4.8; Active referee)

SPACETIDE Foundation ([spacetide.org](#); Active intern, 2022-present)

Science Integrated Direction for High School Investigators ([SIDHI](#); mentor, 2022-present)

Science and Technology Advisory Council- Japan chapter ([STAC-J](#); Member, 2019-present)

Exoplanet Follow-up Observing Program ([ExoFOP](#); Member, 2018-present)

Association of Filipino Students in Japan ([AFSJ](#); President, 2017-2018)

Association of Filipino Scholars in Taiwan ([AFST](#); Founding member, 2014)

[Gawad Kalinga](#) (Volunteer, 2009-2013)