

Christian A. Flores Gonzalez

31 years, Chilean

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Education

- 2017–2022 **Doctorate**, *University of Hawaii at Manoa*, Honolulu, Hawaii, USA, *Astronomy*.
- 2015–2017 **Master**, *University of Hawaii at Manoa*, Honolulu, Hawaii, USA, *Astronomy*.
- 2010–2014 **Bachelor**, *Universidad de Chile*, Santiago de Chile, *Astronomy*.

Relevant Experience

- 2022–2024 **Postdoctoral Research Fellow**, *ASIAA*, Taipei, Taiwan.
I work with Prof. Nagayoshi Ohashi on the ALMA large program eDisks. This program has the goal of detecting and characterizing circumstellar disks around protostars at high angular resolution and sensitivity. Published 1 first-author paper and 6 co-author papers on this topic.
- 2018–2022 **Observatory Assistant**, *NASA Infra-Red Telescope*, Hilo, Hawaii, USA.
I co-developed method for correcting atmospheric disturbances using atmospheric synthetic models. This code was developed for the high-resolution near infrared instrument on this observatory. We published this work as part of the observatory manual. Additionally, I performed characterization of the instrument spectral profile and developed early data reduction pipeline. That work was included in two published papers.
- 2017–2022 **Ph.D. Research Assistant**, *University of Hawaii at Manoa*, Honolulu, Hawaii, USA.
I prepared and performed observations of over 100 young stellar sources in the near IR. Developed method to characterize stellar properties of stars using magnetic radiative transfer models. I implemented a radiative transfer method in large computer clusters: UH Supercomputer and IfA Manoa Cluster. Published 4 first-author papers related to this topic.
- 2015–2017 **M.S. Research Assistant**, *University of Hawaii at Manoa*, Honolulu, Hawaii, USA.
Analyzed sub-mm observations (SMA, JCMT, and ALMA) of a protoplanetary disk. Developed a method to directly measure the temperature structure of highly inclined disks. Performed radiative transfer simulations of disks. Published 1 first-author and 3 co-author papers.
- 2014–2015 **B.S. Research Assistant**, *Universidad de Chile*, Santiago, Chile.
I coupled 2D hydrodynamical and line radiative transfer simulations of protoplanetary disks. Analyzed and modeled IR scattered light and sub-mm observations of protoplanetary disks. Three co-author paper resulted from this work.

Publications & Presentations

I have published 6 first-author and have 13 co-author papers. My first author papers were accepted in the Astrophysical Journal (ApJ) and the Astronomy Journal (AJ) in the following order:

- ApJ 2024 iSHELL K-band Survey of Class I and Flat Spectrum Sources: Magnetic field measurements in the protostellar phase (accepted)
- ApJ 2023 Early Planet Formation in Embedded Disks (eDisk). XII. Accretion Streamers, Protoplanetary Disk, and Outflow in the Class I Source Oph IRS 63
- ApJ 2022 The Effects of Starspots on Spectroscopic Mass Estimates of Low-mass Young Stars
- AJ 2021 The Anatomy of an Unusual Edge-on Protoplanetary Disk. II. Gas Temperature and a Warm Outer Region
- ApJ 2020 Is T Tauri North a "Classical" T Tauri Star?
- ApJ 2019 Measuring the Magnetic Field of Young Stars Using iSHELL Observations: BP Tau and V347 Aur

Mentoring & Teaching

- Master Lvl. 2022-2024 Currently mentoring a master-level student from University College London. Wing-Yu research work revolves around the area of planet formation and inclination angles of protoplanetary disks.
- Master Lvl. 2022-2023 Previously mentored a master's degree student, Rena Lee, at the University of Hawaii at Manoa. Her research project was dedicated to the measurements of magnetic fields of the young moving group Beta Pictoris.
- High School Lvl. 2017-2020 Provided mentorship to a group of high school students in Hawaii through the Maunakea Scholars program. Two of the mentored students displayed remarkable performance, obtaining awards and media coverage. As a result of their involvement in the project, one student was awarded a \$10,000 scholarship to study astronomy at the University of Hawaii.

Awards & Service

- 2024 ASIAA Postdoc Representative: Nominated to represent the interests, opinions, and concerns Postdocs at the Institute of Astronomy and Astrophysics
- 2022 Graduate Student Organization Merit-Based Research Award: a \$US 5000 price awarded to only two graduate student at the University of Hawaii for excellence in research.
- 2017 UH Manoa Graduate Student Organization Travel Grant: A \$US 760 travel grant to attend meetings and/or conferences.
- 2017 Institute for Astronomy Admissions Committee: Served as a member of the Admissions Committee for the 2018 Graduate Class at the Institute for Astronomy of the University of Hawaii at Manoa.
- 2015 Greg F. Reinking Graduate Student Recruitment and Retention Fund: A \$US 750 relocation grant to help with moving expenses.
- 2010-2014 Universidad de Chile Scholarship: A 4-6 year scholarship awarded to the top 100 students accepted at Universidad de Chile \$US 5,500 per annum.



About me

I am a highly determined individual, which has aided me in achieving significant goals, such as becoming an Astronomer. Health and fitness are important to me, and I incorporate regular exercise into my weekly routine. I have a passion for reading and continuous learning. Currently, I am learning Chinese to enhance my local communication skills. I am responsible and friendly, I like making new friends. I greatly value teamwork as it allows me to learn from the diverse perspectives and experiences of others.