

EDUCATION

- **University of Colorado Boulder** Boulder, United States
PhD. student in Astrophysics *September 2021 – present.*
- **McGill University** Montreal, Canada
M.Sc. in Physics *September 2019 – August 2021*
- **Pontificia Universidad Católica de Chile (PUC)** Santiago, Chile
B.Sc. in Astronomy *March 2014 – November 2018*

SCHOLARSHIPS & AWARDS

- **Graduate Mobility Award:** Granted by McGill University.
- **Science Graduate Student Travel Awards:** Granted by Faculty of Science, McGill University.
- **Trottier Graduate Award 2019-2020, 2020-2021:** Granted by McGill Space Institute, McGill University.
- **Wolfe Fellowship in Scientific and Technological Literacy 2019-2020:** Granted by Graduate and Postdoctoral Studies, McGill University.
- **Gratuidad Scholarship 2018:** Full tuition fee waiver, granted by Government of Chile.
- **Familia PUC Scholarship:** Partial tuition fee waiver, granted by PUC.

RESEARCH EXPERIENCE

- **MSc Student** McGill University, Canada
Broad-band spectral analysis of black hole transient MAXI J1820+070 *September 2019 - August 2021*
 - **Supervisors::** Prof. Daryl Haggard, Dr. Alexandra Tetarenko.
- **Undergraduate Student** PUC, Chile
X-ray spectral analysis of the quiescent low-mass X-ray binary in the globular cluster M30 *August 2018 - July 2019*
 - **Supervisors::** Dr. Sebastien Guillot, Prof. Andreas Reisenegger.
- **Vicerrectoría de Investigación** PUC, Chile
Diverse short-term projects
 - **Systematic and statistical uncertainties in estimating mass accretion rate in qLMXBs:** Supervised by Prof. Andreas Reisenegger, January 2018.
 - **Study of Magnetohydrodynamics applications in stellar winds:** Supervised by Prof. Márcio Catelan, January 2017.
 - **Stellar evolution with PGPUC Code:** Supervised by Dr. Aldo Valcarce and Prof. Márcio Catelan, 2016.

TEACHING EXPERIENCE

- **ASTR 1000 The Solar System:** CU Boulder, Spring 2022.
- **ASTR 2030 Black Holes:** CU Boulder, Fall 2021.
- **PHYS320 Introductory Astrophysics:** McGill, Fall 2020.
- **PHYS181 Everyday Physics:** McGill, Winter 2020.
- **PHYS101 Introductory Physics, PHYS131 Mechanics & Waves:** McGill, Fall 2019.
- **Astronomy, Understanding the Universe from our home:** Lecturer, 2019A. As part of the PACE PUC.
- **FIS153 Electricity and Magnetism Laboratory:** PUC, 2019A.
- **AST0321 Stellar Astrophysics Tutorial:** PUC, 2018B.
- **Astronomy, Understanding the Universe from our home:** Teaching Assistant, 2018A&B. As part of the PACE PUC.
- **FIS109C Physics for Sciences Tutorial:** PUC, 2017A.
- **FIS109 Physics for Sciences Laboratory:** PUC, 2016B, 2017A&B, 2019A.
- **FIS151 Statics and Dynamics Laboratory:** PUC, 2015B, 2018A.

REFEREED PUBLICATIONS

1. **Echiburú C. S.**, Guillot S., Zhao Y., Heinke C. O., Özel F., Webb N. A., 2020, *Spectral analysis of the quiescent low-mass X-ray binary in the globular cluster M30*, MNRAS, 495, 4508.
2. Zhao, Y., Heinke, C. O., Cohn, H. N., Lugger, P. M., Guillot, S., **Echiburú, C.**; Shishkovsky, L., Strader, J., Chomiuk, L., Bahramian, A., Miller-Jones, J. C. A., Maccarone, T. J., Tremou, E.; Sivakoff, G. R., 2020, *A deep Chandra survey for faint X-ray sources in the Galactic globular cluster M30, and searches for optical and radio counterparts*, MNRAS, 499, 3338.

OBSERVING PROPOSALS

co-I on **NICER** program 2020: “Searching for soft X-ray pulsations in the quiescent low-mass X-ray binary inside the globular cluster M30” (69 h)

TALKS & POSTERS

- **Spectral analysis of the quiescent low-mass X-ray binary in the globular cluster M30**: American Astronomical Society Annual Meeting 2020 (Virtual). May 2020.
- **Spectral analysis of the quiescent low-mass X-ray binary in the globular cluster M30 (Poster)**: Canadian Astronomical Society Annual Meeting 2020 (Virtual). May 2020.
- **Spectral analysis of the quiescent low-mass X-ray binary in the globular cluster M30**: PHAROS Conference 2020: The multi-messenger physics and astrophysics of neutron stars (canceled). Patras, Greece. April 2020.
- **Spectral analysis of the quiescent low-mass X-ray binary in the globular cluster M30**: East Asian Observatory Seminars. Hilo, HI, USA. February 2020.
- **Neutron Stars**: PHYS181 Everyday Physics guest lecturer. McGill University. January 2020.
- **The Death of Stars, Neutron Stars**: Planetarium, University of Santiago. Santiago, Chile. August 2019.

OUTREACH

- **Multiculturalism at the Observatory**: bilingual outreach program that enables community members to explore the cosmos and the connection between astronomy and Hispanic cultures. It hosts alternating English and Spanish online observing nights the telescopes at CU's Sommers-Bausch Observatory. **Tutor** since May 2021 - present.
- **Academic Enrichment Clips, PACE PUC**: A 15 min. video explaining important concepts in astronomy, and a personal interview about my experience in STEM. Both aimed for students enrolled in the PACE PUC program (see *Teaching Experience* section). August 2020.
- **Journey Through the Universe**: Science education initiative in the Hawaii island. I **assisted** Dr. Alex Tetarenko in classroom activities for grade 4-6 students. Hilo, Hawaii, USA. March 2020.
- **Planetarium USACH: Guide**. Universidad de Santiago de Chile (USACH). April 2019 - August 2019.
- **Expo Prospective Students PUC**: A fair where senior year high school students explore undergraduate programs offered by PUC. Pontificia Universidad Católica de Chile. **Guide**. October 2017.
- **Week for Applicants PUC**: Similar to Expo Prospective Students PUC. Pontificia Universidad Católica de Chile. **Guide**. December 2016 and 2017.