Jorge Anais Vilchez

Education

Universidad de Antofagasta, Chile — Expected 2020
Master's candidate in Astronomy
Advisors: Dr. Sebastian Ramírez Alegría & Dra. Karla Peña Ramírez

Potificia Universidad Católica de Chile — 2014
Licenciate in Astronomy
Advisor: Dra. Manuela Zoccali

Further Degrees

Duoc UC, Santiago, Chile. — 2018
Diploma in Software Development

Universidad de Antofagasta, Antofagasta, Chile. — 2016
Diploma in Astro-engineering

Work & Research Experience

Research Assistant, CITEVA, Universidad de Antofagasta. — 2020-present
Study on transmission spectroscopy models for Earth-like and Mini-Neptunes planetary atmospheres.
Under the supervision of Dr. Jeremy Tregloan-Reed

Observer. Las Campanas Observatory. — 2017-present
1M2H survey. Photometric transients follow-up using Swope Telescope.
Under the supervision of Dr. Ryan Foley

Research Assistant, IA, Universidad Católica del Norte. — 2016
Data reduction FORS and Mage instruments.
Under the supervision of Dr. Christian Moni-Bidin

Telescope Operator and Technical Assistant, LCO. — 2014-2015
CSP II. Photometric SN follow-up using Swope Telescope.
Under the supervision of Dr. Mark M. Phillips

Research Assistant. Santa Martina Observatory, PUC. — 2014
Data Reduction and observations using ESO50/PUCHEROS spectrograph.
Under the supervision of Dr. Leonardo Vanzi.

Research Assistant. IMUC, PUC. — 2012-2013
Research and Software develpment for medical imaging sonification.
Under supervision of Dr. Rodrigo Cádiz and Dr. Patricio de la Cuadra.

2011

Summer internship. IA, PUC.
Commissioning of the ESO50 telescope.
Under supervision of Dr. Leonardo Vanzi.

Observing Experience

Las Campanas Observatory.
Swope 1m Telescope / CCD (>250 nights)

UA Ckoirama Observatory.
Chakana 0.6 m telescope / CCD

Calar Alto Astronomical Observatory.
Zeiss 1.23m telescope / CCD

PUC Santa Martina Observatory.
ESO 50cm Telescope / PUCHEROS Spectrograph

Teaching experience

Pontificia Universidad de Chile. 2010-2014
Teaching assistant for the following courses: Introduction to physics for biological sciences, Static and Dynamics for Civil Engineers, Thermodynamics, Optics, Astronomical Instrumentation and Electricity and Magnetism.

Software Skills

Astronomical: IRAF, Topcat.
Computer Programming: Python, Java, C, SQL, UNIX Shell scripting, MATLAB.
Productivity Applications: TEX (LATEX, BibTeX) and most common office software.
Operating Systems: Linux, Windows. **Github:** `https://github.com/jorgeanais`

Languages

Spanish (native) and English

Outreach Activities

Public Talk: Formación de Sistemas Planetarios y Panspermia. UA. 2019
Facilitador Museo Interactivo Mirador MIM. 2018
Encargado difusión. Departamento de Física, UCN. 2016
Member of Física Itinerante. 2010-2012

Conferences & Schools

Antofagasta, Chile, 3-8 November 2019. *The XVI Latin American Regional IAU Meeting.*

York, United Kingdom, 16-20 September 2019. *Conference From Gas to Stars: The Links between Massive Star and Star Cluster.* **Contributed Poster**: Massive Open Clusters in VVV data using unsupervised clustering algorithms.

La Serena, Chile, August 19-28, 2019. *La Serena School for Data Science. Applied Tools for Data Driven Science.* AURA Observatory.

Publication List

1. Tregloan-Reed, J., Otarola, A., Ortiz, E., Molina, V., **Anais, J.**, González, R., Colque, J. P., Unda-Sanzana, E., 2020, A&A, 637, L1. First observations and magnitude measurement of Starlink's Darksat.
2. Burns, C. R., Ashall, C., Contreras, C. et al. including **Anais, J.** 2020, submitted to ApJ, arXiv:2004.13069. SN 2013aa and SN 2017cbv: Two Sibling Type Ia Supernovae in the spiral galaxy NGC 5643.
3. Stritzinger, M. D., Taddia, F., Fraser, M., et al. including **Anais, J.** 2020, submitted to A&A, arXiv:2005.00319. The Carnegie Supernova Project II. Observations of the intermediate luminosity red transient SNhunt120.
4. Stritzinger, M. D., Taddia, F., Fraser, M., et al. including **Anais, J.** 2020, submitted to A&A, arXiv:2005.00076. The Carnegie Supernova Project II. Observations of the luminous red nova AT 2014ej.
5. Holmbo, S.; Stritzinger, M. D.; Shappee, B. J., et al. including **Anais, J.** 2019, A&A, 627, A174. Discovery and progenitor constraints on the Type Ia supernova 2013gy.
6. Phillips, M. M., Contreras, C., Hsiao, E. Y., et al. including **Anais, J.** 2019, PASP, 131, 014001. Carnegie Supernova Project-II: Extending the Near-infrared Hubble Diagram for Type Ia Supernovae to z∼0.1.
7. Burns, Christopher R.; Parent, Emilie; Phillips, M. M., et al. including **Anais, J.** 2018, ApJ, 869, 56. The Carnegie Supernova Project: Absolute Calibration and the Hubble Constant.
8. Stritzinger, M. D., Anderson, J. P., Contreras, C., et al. including **Anais, J.** 2018, A&A, 609, A134. The Carnegie Supernova Project I. Photometry data release of low-redshift stripped-envelope supernovae.
9. Krisciunas, K., Contreras, C., Burns, C. R., et al. including **Anais, J.** 2017, AJ, 154, 211. The Carnegie Supernova Project. I. Third Photometry Data Release of Low-redshift Type Ia Supernovae and Other White Dwarf Explosions.
10. Coulter, D. A., Kilpatrick, C. D., Foley, R. J., **Anais, J.** et al. 2017, ATel, #10167: Swope Photometric Observations of SN 2017cbv= DLT17u.

References

References available upon request

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Personal webpage curriculum vitæ.