

Jorge Anais Vilchez

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Astronomer and Data Scientist with expertise in deep learning, unsupervised clustering, and big data processing pipelines. Proven track record of designing scalable, data-driven solutions for complex environments, ranging from corporate mobility to wide-field astronomical surveys. Highly skilled in translating technical concepts for stakeholders and leading academic instruction in artificial intelligence.

Education

- 2022 - (2027) **Doctorate in Astrophysics and Astroinformatics** | *Universidad de Antofagasta, Antofagasta, Chile*
PhD candidate. Thesis: "Characterization of Sagittarius dwarf galaxy at low Galactic latitudes"
- 2018-2020 **Master in Astronomy** | *Universidad de Antofagasta, Antofagasta, Chile*
Thesis: "Search and characterization of star clusters in the far end of the Galactic bar".
- 2008-2014 **Licentiate in Astronomy** | *Pontificia Universidad Católica de Chile, Santiago, Chile*
Graduation activity: "A new astrometric software for the Swope Telescope", developed at Las Campanas Observatory.

Research & Professional Experience

- 2023 - Present **Research**
Characterization of the Sagittarius dwarf spheroidal galaxy at low Galactic latitudes, Universidad de Antofagasta
Principal investigator of the project funded by the ANID National Doctoral Scholarship (2024-2026). Detailed characterization of the structure, stellar content, and dynamics of the Sagittarius dwarf galaxy in low Galactic latitude regions, combining photometric and spectroscopic data from multiple surveys.
- 2023 - Present **Assistant Professor**
Duoc UC, School of Informatics and Telecommunications, Santiago, Chile
Teaching Machine Learning and Deep Learning courses for computer engineering students.
- 04/2025-10/2025 **Early Career Visitor Programme**
Characterization of new Sagittarius Dwarf Galaxy Clusters, ESO, Chile
Researcher in the project led by Dr. Elisa R. Garro combining deep HST photometry (WFC3, F555W and F814W) and FLAMES+UVES spectroscopy (98 hrs, PI: Garro) to precisely determine ages and chemical compositions of Sagittarius dwarf galaxy globular clusters. Goals include resolving the age-metallicity relation, testing formation scenarios during Sgr-Milky Way interaction, and comparing with theoretical models to reconstruct Sgr's evolutionary history.
- 09/2024 **Research**
Variable stars in the Sagittarius dwarf spheroidal galaxy, NOIRLab
Collaboration with NOIRLab researcher Kathy Vivas to detect and classify variable stars (focus on δ Scuti and RR Lyrae stars) in the central regions of Sagittarius galaxy using multiepoch DECam data.
- 08/2021-04/2022 **Data Scientist**
Grupo Kaufmann AWTO, Chile and Brasil
Design and implement machine learning models, perform exploratory data analysis, communicate insights and recommendations to stakeholders.
- 03/2020-11/2020 **Research**
Principal investigator of the project: Search and characterization of star clusters in the far end of the Galactic bar, CITEVA, Universidad de Antofagasta
Development of a methodology based on unsupervised machine learning to search for young cluster candidates at the far end of the Galactic bar. This work allowed us to identify three new cluster candidates at a highly extincted and crowded region of the Milky Way. Under the supervision of Dr. Sebastián Ramírez and Dra. Karla Peña Ramírez.

- 03/2020–11/2020 **Research Assistant**
Spectroscopy models for planetary atmospheres, CITEVA, UA
 Study on transmission spectroscopy *in silico* models for Earth-like and Mini-Neptunes planetary atmospheres. The result of this research was used for a JWST Time Proposal (#2684, cycle 1). Under the supervision of Dr. Jeremy Tregloan-Reed.
- 2015–2025 **Observer**
1M2H Project, UC Santa Cruz, Las Campanas Observatory, Atacama, Chile
 Photometric transients follow-up using Swope Telescope. Responsible for data acquisition, data quality assurance, and system troubleshooting. Under the supervision of Dr. Ryan Foley.
- 01/2016–06/2016 **Research Assistant**
Data reduction, Instituto de Astronomía, Universidad Católica del Norte, Antofagasta, Chile
 Data reduction of VLT FORS and Magellan MagE data. Under the supervision of Dr. Christian Moni Bidin.
- 2014–2015 **Observer**
Carnegie Supernova Project II, Las Campanas Observatory, Atacama, Chile
 Observations of low-redshift supernovae using the Swope Telescope at Las Campanas Observatory. Under the supervision of Dr. Mark M. Phillips.
- 2014–2015 **Research Assistant**
Sonification of medical images, Instituto de Música, Pontificia Universidad Católica de Chile, Santiago, Chile
 Development of a sonification tool to assist radiologists in the detection of breast cancer. In collaboration with Dr. Rodrigo Cádiz and Dr. Patricio de la Cuadra.

Skills & Languages

Software: Proficient in developing data analysis, reduction, and visualization using Python and its main associated modules (Astropy, Matplotlib, Numpy, Pandas, Plotly, PyTorch, Seaborn, SciPy). Astronomical software: IRAF, DS9, TOPCAT. Other technologies: Bash, Docker, Git, L^AT_EX, OpenClaw, OpenCode, PostgreSQL, R. Github repo: <https://github.com/jorgeanaais>

Languages:

- Spanish (native)
- English (professional competence)

Teaching & Course Development

- 2023 - Present **Instructor**
Duoc UC, School of Informatics and Telecommunications, Santiago, Chile
 Teaching Machine Learning and Deep Learning courses for computer engineering students.
- 2010–2014 **Teaching Assistant**
Pontificia Universidad Católica de Chile, Santiago, Chile
 Courses: Introduction to Physics for Biological Sciences, Static and Dynamics for Civil Engineers, Thermodynamics, Optics, Astronomical Instrumentation and Electricity and Magnetism.

Observational Experience

- 2014–2025 **Swope 1m Telescope**
Las Campanas Observatory, Atacama, Chile
 More than 300 nights observed.
- 2018–2020 **Chakana 0.6m Telescope**
UA Ckoirama Observatory, Antofagasta, Chile
 10 nights observed in total.

2020	Zeiss 1.23m Telescope <i>Calar Alto Astronomical Observatory, Spain (remote)</i> 8 nights observed in total.
2013–2014	PUC 50cm Telescope / PUCHEROS Spectrograph <i>PUC Santa Martina Observatory, Santiago, Chile</i> 10 nights observed in total.

Certifications & Further Degrees

2025	Deep Learning Specialization <i>Coursera - DeepLearning.AI</i> https://www.coursera.org/account/accomplishments/specialization/NOGS7DPV9JOY
2026	Data Governance, Regulation, and Ethics <i>Universidad de Chile, Santiago, Chile</i>
2025	Evolutionary Algorithms (CC66M) <i>Universidad de Chile, Santiago, Chile</i>
2025	Transformers, use of agents, LangChain and RAG <i>Universidad de Chile, Santiago, Chile</i>
2024	Visual Recognition with Deep Learning (CC66T) <i>Universidad de Chile, Santiago, Chile</i>
2024	Natural Language Processing (CC66Q) <i>Universidad de Chile, Santiago, Chile</i>
2021	Diplomature in Data Science <i>Universidad del Desarrollo, Santiago, Chile</i>
2018	Diplomature in Software Development <i>Duoc UC, Santiago, Chile</i>
2016	Diplomature in Astroengineering <i>Universidad de Antofagasta, Antofagasta, Chile</i>

Achievements & Scholarships

Scholarships:

- 2024–2026 Full Scholarship for advanced human capital in Chile, Agencia Nacional de Investigación y Desarrollo de Chile.
- 2022–2023 Academic Excellence Scholarship for PhD students, Universidad de Antofagasta.
- 2019 Full scholarship to attend La Serena School for Data Science, AURA Observatory, Chile.

Conferences & Presentations

04/2025	12th VVV Science Meeting: the VVX synergy with next-generation Milky Way studies <i>Conference, Astrophysics Group at the Universidade Federal de Santa Catarina in Florianópolis, Brazil</i> Oral: <i>Unveiling the Sagittarius Dwarf Galaxy: Mapping Its Core and Streams at Low Galactic Latitudes</i>
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07/2024	Summer School in Statistics for Astronomers <i>Center for Astrostatistics at The Pennsylvania State University</i>
03/2024	First LSST Latin American Meeting (LSST@LATAM): Catalyzing Research Collaborations <i>Conference, La Serena, Chile</i>
03/2023	XVII Latin American Regional IAU Meeting <i>Conference, Montevideo, Uruguay</i> Poster contribution: <i>Unraveling the Sagittarius Dwarf Spheroidal Galaxy at Low Galactic latitudes</i>
03/2023	First Latinamerican Virtual Observatory School <i>Spanish Virtual Observatory, Online</i>
2021	Pycon Chile 2021 <i>Conference, Online (https://pycon.cl/2021/)</i> Contributed talk: <i>Search for star clusters using unsupervised machine learning</i>
2019	LARIM 2019: XVI Latin American Regional IAU Meeting <i>Conference, Antofagasta, Chile</i>
2019	Star Form Mapper 2019 <i>Conference, York, United Kingdom</i> Contributed poster: <i>Massive Open clusters in VVV data using unsupervised clustering algorithms</i>
2019	La Serena School for Data Science: Applied Tools for Data-driven Sciences <i>AURA, La Serena, Chile</i>

Courses Taught

Autumn 2026	AVY1101 Big Data, AVY1102 Fundamentals of Machine Learning, BIY7121 Data Mining <i>Computer Engineering, Duoc UC, Santiago, Chile</i>
Spring 2025	MLY0100 Machine Learning <i>Computer Engineering, Duoc UC, Santiago, Chile</i>
Autumn 2025	DLY0100 Deep Learning, FMY0100 Fundamentals of Machine Learning <i>Computer Engineering, Duoc UC, Santiago, Chile</i>
Spring 2024	MLY0100 Machine Learning <i>Computer Engineering, Duoc UC, Santiago, Chile</i>
Autumn 2024	DLY0100 Deep Learning <i>Computer Engineering, Duoc UC, Santiago, Chile</i>
Autumn 2023	DLY0100 Deep Learning <i>Computer Engineering, Duoc UC, Santiago, Chile</i>
Spring 2023	MLY0100 Machine Learning <i>Computer Engineering, Duoc UC, Santiago, Chile</i>

Courses Developed

- 2025 **TLY1101 Machine Learning**
Computer Engineering with AI specialization, Duoc UC, Santiago, Chile
Course design and development
- 2026 **MLT2202 Neural Networks and Deep Learning**
Data Scientist Program online, Duoc UC, Santiago, Chile
Course design and development

Publications

Full list on ADS: <https://ui.adsabs.harvard.edu/public-libraries/veXcb7VPR0qU0r03axnXkg>

- [1] Javier Alonso-García, Maren Hempel, Roberto K. Saito, Dante Minniti, Nicholas J. G. Cross, Jorge Anais, Jura Borissova, Márcio Catelan, José G. Fernández-Trincado, Elisa R. Garro, Zhen Guo, Philip W. Lucas, María G. Navarro, Casimir O. Obasi, and Leigh C. Smith. “A near-infrared stellar atlas of the Galactic plane from the VVVX survey.” In: *Astronomy and Astrophysics* 706, A301 (Feb. 2026), A301. DOI: [10.1051/0004-6361/202557979](https://doi.org/10.1051/0004-6361/202557979). arXiv: [2601.19708](https://arxiv.org/abs/2601.19708) [astro-ph.GA].
- [2] J. Anais and J. Alonso-García. *Unraveling the Sagittarius dwarf spheroidal galaxy at low Galactic latitudes*. Estimated submission 2025. 2025.
- [3] D. A. Coulter, C. D. Kilpatrick, D. O. Jones, R. J. Foley, J. Anais Vilchez, I. Arcavi, K. E. Clever, G. Dimitriadis, A. V. Filippenko, N. Muñoz-Elgueta, A. L. Piro, P. J. Quiñonez, G. S. Rahman, C. Rojas-Bravo, M. R. Siebert, H. E. Stacey, J. J. Swift, W. Zheng, J. S. Bloom, M. J. Bustamante-Rosell, K. W. Davis, J. Kutcka, P. Macias, P. McGill, E. Ramirez-Ruiz, K. Siellez, S. Tanyanont, S. B. Cenko, M. R. Drout, R. Hausen, D. Andrew Howell, W. V. Jacobson-Galán, D. Kasen, C. McCully, A. Rest, K. Taggart, and S. Valenti. “The Gravity Collective: A Comprehensive Analysis of the Electromagnetic Search for the Binary Neutron Star Merger GW190425.” In: *Astrophysical Journal* 988.2, 169 (Aug. 2025), p. 169. DOI: [10.3847/1538-4357/ade0b3](https://doi.org/10.3847/1538-4357/ade0b3). arXiv: [2404.15441](https://arxiv.org/abs/2404.15441) [astro-ph.HE].
- [4] J. P. Anderson, C. Contreras, M. D. Stritzinger, M. Hamuy, M. M. Phillips, N. B. Suntzeff, N. Morrell, S. González-Gaitán, C. P. Gutiérrez, C. R. Burns, E. Y. Hsiao, J. Anais, C. Ashall, C. Baltay, E. Baron, M. Bersten, L. Busta, S. Castellón, T. de Jaeger, D. DePoy, A. V. Filippenko, G. Folatelli, F. Förster, L. Galbany, C. Gall, A. Goobar, C. Gonzalez, E. Hadjiyska, P. Hoefflich, K. Krisciunas, W. Krzemiński, W. Li, B. Madore, J. Marshall, L. Martinez, P. Nugent, P. J. Pessi, A. L. Piro, J.-P. Rheault, S. Ryder, J. Serón, B. J. Shappee, F. Taddia, S. Torres, J. Thomas-Osip, and S. Uddin. “Optical and near-infrared photometry of 94 type II supernovae from the Carnegie Supernova Project.” In: *Astronomy and Astrophysics* 692, A95 (Dec. 2024), A95. DOI: [10.1051/0004-6361/202244401](https://doi.org/10.1051/0004-6361/202244401). arXiv: [2410.06738](https://arxiv.org/abs/2410.06738) [astro-ph.CO].
- [5] N. Morrell, M. M. Phillips, G. Folatelli, M. D. Stritzinger, M. Hamuy, N. B. Suntzeff, E. Y. Hsiao, F. Taddia, C. R. Burns, P. Hoefflich, C. Ashall, C. Contreras, L. Galbany, J. Lu, A. L. Piro, J. Anais, E. Baron, A. Burrow, L. Busta, A. Campillay, S. Castellón, C. Corco, T. Diamond, W. L. Freedman, C. Gonzalez, K. Krisciunas, S. Kumar, S. E. Persson, J. Serón, M. Shahbandeh, S. Torres, S. A. Uddin, J. P. Anderson, C. Baltay, C. Gall, A. Goobar, E. Hadjiyska, S. Holmbo, M. Kasliwal, C. Lidman, G. H. Marion, P. A. Mazzali, P. Nugent, S. Perlmutter, G. Pignata, D. Rabinowitz, M. Roth, S. D. Ryder, B. J. Shappee, J. Vinkó, J. C. Wheeler, T. de Jaeger, P. Lira, M. T. Ruiz, J. A. Rich, J. L. Prieto, F. Di Mille, D. Osip, G. Blanc, and P. Palunas. “Optical Spectroscopy of Type Ia Supernovae by the Carnegie Supernova Projects I and II.” In: *Astrophysical Journal* 967.1, 20 (May 2024), p. 20. DOI: [10.3847/1538-4357/ad38af](https://doi.org/10.3847/1538-4357/ad38af). arXiv: [2404.19208](https://arxiv.org/abs/2404.19208) [astro-ph.HE].
- [6] Syed A. Uddin, Christopher R. Burns, M. M. Phillips, Nicholas B. Suntzeff, Wendy L. Freedman, Peter J. Brown, Nidia Morrell, Mario Hamuy, Kevin Krisciunas, Lifan Wang, Eric Y. Hsiao, Ariel Goobar, Saul Perlmutter, Jing Lu, Maximilian Stritzinger, Joseph P. Anderson, Chris Ashall, Peter Hoefflich, Benjamin J. Shappee, S. E. Persson, Anthony L. Piro, E. Baron, Carlos Contreras, Lluís Galbany, Sahana Kumar, Melissa Shahbandeh, Scott Davis, Jorge Anais, Luis Busta, Abdo Campillay, Sergio Castellón, Carlos Corco, Tiara Diamond, Christa Gall, Consuelo Gonzalez, Simon Holmbo, Miguel Roth, Jacqueline Serón, Francesco Taddia, Simón Torres, Charles Baltay, Gastón Folatelli, Ellie Hadjiyska, Mansi Kasliwal, Peter E. Nugent, David Rabinowitz, and Stuart D. Ryder. “Carnegie Supernova Project I and II: Measurements of H_0 Using Cepheid, Tip of the Red Giant Branch, and Surface Brightness Fluctuation Distance Calibration to Type Ia Supernovae.” In: *Astrophysical Journal* 970.1, 72 (July 2024), p. 72. DOI: [10.3847/1538-4357/ad3e63](https://doi.org/10.3847/1538-4357/ad3e63).

- [7] P. Armstrong, B. E. Tucker, A. Rest, R. Ridden-Harper, Y. Zenati, A. L. Piro, S. Hinton, C. Lidman, S. Margheim, G. Narayan, E. Shaya, P. Garnavich, D. Kasen, V. Villar, A. Zenteno, I. Arcavi, M. Drout, R. J. Foley, J. Wheeler, J. Anais, A. Campillay, D. Coulter, G. Dimitriadis, D. Jones, C. D. Kilpatrick, N. Muñoz-Elgueta, C. Rojas-Bravo, J. Vargas-González, J. Bulger, K. Chambers, M. Huber, T. Lowe, E. Magnier, B. J. Shappee, S. Smartt, K. W. Smith, T. Barclay, G. Barentsen, J. Dotson, M. Gully-Santiago, C. Hedges, S. Howell, A. Cody, K. Auchettl, A. Bódi, Zs Bognár, J. Brimacombe, P. Brown, B. Cseh, L. Galbany, D. Hiramatsu, T. W.-S. Holoién, D. A. Howell, S. W. Jha, R. Könyves-Tóth, L. Kriskovics, C. McCully, P. Milne, J. Muñoz, Y. Pan, A. Pál, H. Sai, K. Sárneczky, N. Smith, Á. Sódor, R. Szabó, R. Szakáts, S. Valenti, J. Vinkó, X. Wang, K. Zhang, and G. Zsidi. “SN2017jgh: a high-cadence complete shock cooling light curve of a SN Iib with the Kepler telescope.” In: *Monthly Notices of the Royal Astronomical Society* 507.3 (Nov. 2021), pp. 3125–3138. DOI: [10.1093/mnras/stab2138](https://doi.org/10.1093/mnras/stab2138). arXiv: [2108.06654](https://arxiv.org/abs/2108.06654) [astro-ph.HE].
- [8] C. Ashall, J. Lu, E. Y. Hsiao, P. Hoefflich, M. M. Phillips, L. Galbany, C. R. Burns, C. Contreras, K. Krisciunas, N. Morrell, M. D. Stritzinger, N. B. Suntzeff, F. Taddia, J. Anais, E. Baron, P. J. Brown, L. Busta, A. Campillay, S. Castellón, C. Corco, S. Davis, G. Folatelli, F. Förster, W. L. Freedman, C. González, M. Hamuy, S. Holmbo, R. P. Kirshner, S. Kumar, G. H. Marion, P. Mazzali, T. Morokuma, P. E. Nugent, S. E. Persson, A. L. Piro, M. Roth, F. Salgado, D. J. Sand, J. Seron, M. Shahbandeh, and B. J. Shappee. “Carnegie Supernova Project: The First Homogeneous Sample of Super-Chandrasekhar-mass/2003fg-like Type Ia Supernovae.” In: *Astrophysical Journal* 922.2, 205 (Dec. 2021), p. 205. DOI: [10.3847/1538-4357/ac19ac](https://doi.org/10.3847/1538-4357/ac19ac). arXiv: [2106.12140](https://arxiv.org/abs/2106.12140) [astro-ph.SR].
- [9] J. Lu, C. Ashall, E. Y. Hsiao, P. Hoefflich, L. Galbany, E. Baron, M. M. Phillips, C. Contreras, C. R. Burns, N. B. Suntzeff, M. D. Stritzinger, J. Anais, J. P. Anderson, P. J. Brown, L. Busta, S. Castellón, S. Davis, T. Diamond, E. Falco, C. Gonzalez, M. Hamuy, S. Holmbo, T. W.-S. Holoién, K. Krisciunas, R. P. Kirshner, S. Kumar, H. Kuncarayakti, G. H. Marion, N. Morrell, S. E. Persson, A. L. Piro, J. L. Prieto, D. J. Sand, M. Shahbandeh, B. J. Shappee, and F. Taddia. “ASASSN-15hy: An Underluminous, Red 03fg-like Type Ia Supernova.” In: *Astrophysical Journal* 920.2, 107 (Oct. 2021), p. 107. DOI: [10.3847/1538-4357/ac1606](https://doi.org/10.3847/1538-4357/ac1606). arXiv: [2107.08150](https://arxiv.org/abs/2107.08150) [astro-ph.HE].
- [10] J. Tregloan-Reed, A. Otarola, E. Unda-Sanzana, B. Haeussler, F. Gaete, J. P. Colque, C. González-Fernández, J. Anais, V. Molina, R. González, E. Ortiz, S. Mieske, S. Brilliant, and J. P. Anderson. “Optical-to-NIR magnitude measurements of the Starlink LEO Darksat satellite and effectiveness of the darkening treatment.” In: *Astronomy and Astrophysics* 647, A54 (Mar. 2021), A54. DOI: [10.1051/0004-6361/202039364](https://doi.org/10.1051/0004-6361/202039364). arXiv: [2011.01820](https://arxiv.org/abs/2011.01820) [astro-ph.IM].
- [11] J. Anais Vilchez, S. Ramírez-Alegría, and K. Peña-Ramírez. “Massive open clusters in VVV data using unsupervised clustering algorithms.” In: *Boletín de la Asociación Argentina de Astronomía La Plata Argentina* 61C (Aug. 2020), pp. 80–80.
- [12] M. D. Stritzinger, F. Taddia, M. Fraser, T. M. Tauris, C. Contreras, S. Drybye, L. Galbany, S. Holmbo, N. Morrell, A. Pastorello, M. M. Phillips, G. Pignata, L. Tartaglia, N. B. Suntzeff, J. Anais, C. Ashall, E. Baron, C. R. Burns, P. Hoefflich, E. Y. Hsiao, E. Karamehmetoglu, T. J. Moriya, G. Bock, A. Campillay, S. Castellón, C. Inserra, C. González, P. Marples, S. Parker, D. Reichart, S. Torres-Robledo, and D. R. Young. “The Carnegie Supernova Project II. Observations of the luminous red nova AT 2014ej.” In: *Astronomy and Astrophysics* 639, A104 (July 2020), A104. DOI: [10.1051/0004-6361/202038019](https://doi.org/10.1051/0004-6361/202038019). arXiv: [2005.00076](https://arxiv.org/abs/2005.00076) [astro-ph.HE].
- [13] M. D. Stritzinger, F. Taddia, M. Fraser, T. M. Tauris, N. B. Suntzeff, C. Contreras, S. Drybye, L. Galbany, S. Holmbo, N. Morrell, M. M. Phillips, J. L. Prieto, J. Anais, C. Ashall, E. Baron, C. R. Burns, P. Hoefflich, E. Y. Hsiao, E. Karamehmetoglu, T. J. Moriya, M. T. Botticella, A. Campillay, S. Castellón, C. González, M. L. Pumo, and S. Torres-Robledo. “The Carnegie Supernova Project II. Observations of the intermediate-luminosity red transient SNhunt120.” In: *Astronomy and Astrophysics* 639, A103 (July 2020), A103. DOI: [10.1051/0004-6361/202038018](https://doi.org/10.1051/0004-6361/202038018). arXiv: [2005.00319](https://arxiv.org/abs/2005.00319) [astro-ph.HE].
- [14] J. Tregloan-Reed, A. Otarola, E. Ortiz, V. Molina, J. Anais, R. González, J. P. Colque, and E. Unda-Sanzana. “First observations and magnitude measurement of Starlink’s Darksat.” In: *Astronomy and Astrophysics* 637, L1 (May 2020), p. L1. DOI: [10.1051/0004-6361/202037958](https://doi.org/10.1051/0004-6361/202037958). arXiv: [2003.07251](https://arxiv.org/abs/2003.07251) [astro-ph.IM].
- [15] S. Holmbo, M. D. Stritzinger, B. J. Shappee, M. A. Tucker, W. Zheng, C. Ashall, M. M. Phillips, C. Contreras, A. V. Filippenko, P. Hoefflich, M. Huber, A. L. Piro, X. F. Wang, J.-J. Zhang, J. Anais, E. Baron, C. R. Burns, A. Campillay, S. Castellón, C. Corco, E. Y. Hsiao, K. Krisciunas, N. Morrell, M. T. B. Nielsen, S. E. Persson, F. Taddia, L. Tomasella, T.-M. Zhang, and X.-L. Zhao. “Discovery and progenitor constraints on the Type Ia supernova 2013gy.” In: *Astronomy and Astrophysics* 627, A174 (July 2019), A174. DOI: [10.1051/0004-6361/201834389](https://doi.org/10.1051/0004-6361/201834389). arXiv: [1809.01359](https://arxiv.org/abs/1809.01359) [astro-ph.HE].
- [16] M. M. Phillips, Carlos Contreras, E. Y. Hsiao, Nidia Morrell, Christopher R. Burns, Maximilian Stritzinger, C. Ashall, Wendy L. Freedman, P. Hoefflich, S. E. Persson, Anthony L. Piro, Nicholas B. Suntzeff, Syed A. Uddin, Jorge Anais, E. Baron, Luis Busta, Abdo Campillay, Sergio Castellón, Carlos Corco, T. Diamond, Christa Gall, Consuelo Gonzalez, Simon Holmbo, Kevin Krisciunas, Miguel Roth, Jacqueline Serón, F. Taddia, Simón Torres, J. P. Anderson, C. Baltay, Gastón Folatelli, L. Galbany, A. Goobar, Ellie Hadjijska, Mario Hamuy, Mansi Kasliwal,

- C. Lidman, Peter E. Nugent, S. Perlmutter, David Rabinowitz, Stuart D. Ryder, Brian P. Schmidt, B. J. Shappee, and Emma S. Walker. “Carnegie Supernova Project-II: Extending the Near-infrared Hubble Diagram for Type Ia Supernovae to $z \sim 0.1$.” In: *Publications of the Astronomical Society of the Pacific* 131.995 (Jan. 2019), p. 014001. DOI: [10.1088/1538-3873/aae8bd](https://doi.org/10.1088/1538-3873/aae8bd). arXiv: [1810.09252](https://arxiv.org/abs/1810.09252) [astro-ph.HE].
- [17] Christopher R. Burns, Emilie Parent, M. M. Phillips, Maximilian Stritzinger, Kevin Krisciunas, Nicholas B. Suntzeff, Eric Y. Hsiao, Carlos Contreras, Jorge Anais, Luis Boldt, Luis Busta, Abdo Campillay, Sergio Castellón, Gastón Folatelli, Wendy L. Freedman, Consuelo González, Mario Hamuy, Peter Heoflich, Wojtek Krzeminski, Barry F. Madore, Nidia Morrell, S. E. Persson, Miguel Roth, Francisco Salgado, Jacqueline Serón, and Simón Torres. “The Carnegie Supernova Project: Absolute Calibration and the Hubble Constant.” In: *Astrophysical Journal* 869.1, 56 (Dec. 2018), p. 56. DOI: [10.3847/1538-4357/aae51c](https://doi.org/10.3847/1538-4357/aae51c). arXiv: [1809.06381](https://arxiv.org/abs/1809.06381) [astro-ph.CO].
- [18] K. Krisciunas, C. Contreras, C. R. Burns, M. M. Phillips, M. D. Stritzinger, N. Morrell, M. Hamuy, J. Anais, L. Boldt, L. Busta, A. Campillay, S. Castellon, G. Folatelli, W. L. Freedman, C. Gonzalez, E. Y. Hsiao, W. Krzeminski, S. E. Persson, M. Roth, F. Salgado, J. Seron, N. B. Suntzeff, S. Torres, A. V. Filippenko, W. Li, B. F. Madore, D. L. Depoy, J. L. Marshall, J.-P. Rheault, and S. Villanueva. *VizieR Online Data Catalog: The CSP (DR3): photometry of low-z SNe Ia (Krisciunas+, 2017)*. Aug. 2018. DOI: [10.26093/cds/vizier.51540211](https://doi.org/10.26093/cds/vizier.51540211).
- [19] M. D. Stritzinger, J. P. Anderson, C. Contreras, E. Heinrich-Josties, N. Morrell, M. M. Phillips, J. Anais, L. Boldt, L. Busta, C. R. Burns, A. Campillay, C. Corco, S. Castellon, G. Folatelli, C. González, S. Holmbo, E. Y. Hsiao, W. Krzeminski, F. Salgado, J. Serón, S. Torres-Robledo, W. L. Freedman, M. Hamuy, K. Krisciunas, B. F. Madore, S. E. Persson, M. Roth, N. B. Suntzeff, F. Taddia, W. Li, and A. V. Filippenko. “The Carnegie Supernova Project I. Photometry data release of low-redshift stripped-envelope supernovae.” In: *Astronomy and Astrophysics* 609, A134 (Feb. 2018), A134. DOI: [10.1051/0004-6361/201730842](https://doi.org/10.1051/0004-6361/201730842). arXiv: [1707.07616](https://arxiv.org/abs/1707.07616) [astro-ph.HE].
- [20] D. A. Coulter, C. D. Kilpatrick, R. J. Foley, J. Anais, M. M. Phillips, M. R. Drout, B. F. Madore, A. L. Piro, B. J. Shappee, and E. Y. Hsiao. “Swope Photometric Observations of SN 2017cbv = DLT17u.” In: *The Astronomer’s Telegram* 10167 (Mar. 2017), p. 1.
- [21] Kevin Krisciunas, Carlos Contreras, Christopher R. Burns, M. M. Phillips, Maximilian D. Stritzinger, Nidia Morrell, Mario Hamuy, Jorge Anais, Luis Boldt, Luis Busta, Abdo Campillay, Sergio Castellón, Gastón Folatelli, Wendy L. Freedman, Consuelo González, Eric Y. Hsiao, Wojtek Krzeminski, Sven Eric Persson, Miguel Roth, Francisco Salgado, Jacqueline Serón, Nicholas B. Suntzeff, Simón Torres, Alexei V. Filippenko, Weidong Li, Barry F. Madore, D. L. DePoy, Jennifer L. Marshall, Jean-Philippe Rheault, and Steven Villanueva. “The Carnegie Supernova Project. I. Third Photometry Data Release of Low-redshift Type Ia Supernovae and Other White Dwarf Explosions.” In: *Astronomical Journal* 154.5, 211 (Nov. 2017), p. 211. DOI: [10.3847/1538-3881/aa8df0](https://doi.org/10.3847/1538-3881/aa8df0). arXiv: [1709.05146](https://arxiv.org/abs/1709.05146) [astro-ph.IM].
- [22] M. D. Stritzinger, J. P. Anderson, C. Contreras, E. Heinrich-Josties, N. Morrell, M. M. Phillips, J. Anais, L. Boldt, L. Busta, C. R. Burns, A. Campillay, C. Corco, S. Castellon, G. Folatelli, C. Gonzalez, S. Holmbo, E. Y. Hsiao, W. Krzeminski, F. Salgado, J. Seron, S. Torres-Robledo, W. L. Freedman, M. Hamuy, K. Krisciunas, B. F. Madore, S. E. Persson, M. Roth, N. B. Suntzeff, F. Taddia, W. Li, and A. V. Filippenko. *VizieR Online Data Catalog: CSP-I photometry for 34 supernovae (Stritzinger+, 2018)*. Aug. 2017. DOI: [10.26093/cds/vizier.36090134](https://doi.org/10.26093/cds/vizier.36090134).

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