List of Publications

(As of May 25, 2025)

Number of citations: 5,441 / 93 (total, as first author)
h-index: 18 / 5 (total, as first author)

As first author (7 papers + 1 in prep.)

Medina, G. E., Li, T. S., Eadie, G., and the DESI collaboration, "A distribution function-based estimation of the Milky Way mass using DESI Y1 RR Lyrae and blue horizontal branch stars", A&A. **Estimated submission date**: June 2025.

Medina, G. E., Li, T. S., Allende Prieto, C., et al., "The DESI Y1 RR Lyrae catalog II: The metallicity dependency of pulsational properties, the shape of the RR Lyrae instability strip, and metal rich RR Lyrae", 2025, submitted to ApJ, arXiv:2505.10614.

Medina, G. E., Li, T. S., Koposov, S., et al., "The DESI Y1 RR Lyrae catalog I: Empirical modeling of the cyclic variation of spectroscopic properties and a chemodynamical analysis of the outer halo", 2025, submitted to ApJ, arXiv:2404.02924.

Medina, G. E., Muñoz R. R., Carlin, J. L., Vivas, A. K., Grebel, E. K., Martínez-Vázquez, C. E., Hansen, C. J., "Taking the pulse of the outer Milky Way with HOWVAST: an RR Lyrae density profile out to >200 kpc", 2024, MNRAS, 531, 4762.

Medina, G. E., Hansen, C. J., Muñoz, R. R., Grebel E. K., Vivas, A. K., Carlin, J. L., Martínez-Vazquez C., "RR Lyrae stars as probes of the outer Galactic halo: Chemical and kinematic analysis of a pilot sample", 2023, MNRAS 519, 5689.

Medina, G. E., Lemasle, B., Grebel, E. K., "A revisited study of Cepheids in open clusters in the Gaia era", 2021, MNRAS 505, 1342.

Medina, G. E., Muñoz, R. R., Vivas, A. K., Carlin, J. L., Förster, F., Martinez, J., Galbany, L., González-Gaitán, S., Hamuy, M., de Jaeger, Th., Maureira, J. C., San Martín, J., "Discovery of distant RR Lyrae stars in the Milky Way using DECam", 2018, ApJ, 855, 43.

Medina, G. E., Muñoz, R. R., Vivas, A. K., Förster, F., Carlin, J. L., Martinez, J., Galbany, L., González-Gaitán, S., Hamuy, M., de Jaeger, Th., Maureira, J. C., San Martín, J., "Serendipitous Discovery of RR Lyrae Stars in the Leo V Ultra-faint Galaxy", 2017, ApJ, 845, L10.

As co-author (38 papers)
(Contribution - [Obs]: Observations, [DA]: Data analysis)

Koposov, S., Li, T. S., Allende Prieto, C., et al., "DESI Data Release 1: Stellar Catalogue", 2025, submitted to OJA, arXiv:2505.14787 - [Obs], [DA]

Kim, B., Koposov, S. E., Li, T. S, et al., "Nearby stellar substructures in the Galactic halo from DESI Milky Way Survey Year 1 Data Release", 2025, MNRAS, 540, 264 - [Obs], [DA]

Casey, Q. O., Mutlu-Pakdil, B., Sand, D. J., et al., "Deep Photometric Observations of Ultra-Faint Milky Way Satellites Centaurus I and Eridanus IV", 2025, ApJ, 984, 148 - [Obs], [DA]

Doliva-Dolinsky, A., Mutlu-Pakdil, B., Crnojević, D., et al., "The NGC3109 Satellite System: The First Systematic Resolved Search for Dwarf Galaxies Around a SMC-mass Host", 2025, submitted to ApJ, arXiv:2505.05570 - [Obs], [DA]

Medoff, J., Mutlu-Pakdil, B., Carlin, J. L., et al., "DELVE-DEEP Survey: The Faint Satellite System of NGC 55", 2025, submitted to ApJ, arXiv:2504.18645 - [Obs], [DA]

Aganze, C., Chandra, V., Wechsler, R. H., et al., "The Cocytos Stream: A Disrupted Globular Cluster from our Last Major Merger?", 2025, submitted to ApJ, arXiv:2504.11687 - [Obs], [DA]

Barbosa, F. O., Chiti, A., Limberg, G., et al., "The DECam MAGIC Survey: A Wide-field Photometric Metallicity Study of the Sculptor Dwarf Spheroidal Galaxy", 2025, submitted to ApJ, arXiv:2504.03593 - [Obs], [DA]

DESI Collaboration, Karim, M. A., Adame, A. G., et al., "Data Release 1 of the Dark Energy Spectroscopic Instrument", 2025, submitted to AJ, arXiv:2503.14745 - [Obs], [DA]

Gwyn, S., McConnachie, A. W., Cuillandre, J-C., et al., "UNIONS: The Ultraviolet Near-Infrared Optical Northern Survey", 2025, submitted to ApJ, arXiv:2503.13783 - [DA]

Anbajagane, D., Chang, C., Drlica-Wagner, A., et al., "The DECADE cosmic shear project IV: cosmological constraints from 107 million galaxies across 5,400 deg2 of the sky", 2025, submitted to ApJ, arXiv:2502.17677 - [Obs]

Anbajagane, D., Chang, C., Chicoine, N., et al., "The DECADE cosmic shear project III: validation of analysis pipeline using spatially inhomogeneous data", 2025, submitted to ApJ, arXiv:2502.17676 - [Obs]

Anbajagane, D., Alarcon, A., Teixeira, R., et al., "The DECADE cosmic shear project II: photometric redshift calibration of the source galaxy sample", 2025, submitted to ApJ, arXiv:2502.17675 - [Obs]

Anbajagane, D., Chang, C., Zhang, Z., et al., "The DECADE cosmic shear project I: A new weak lensing shape catalog of 107 million galaxies", 2025, submitted to ApJ, arXiv:2502.17674 - [Obs]

Bayer, M., Starkenburg, E., Thomas G. F., et al., "A Pristine-UNIONS view on the Galaxy: Kinematics of the distant spur feature of the Sagittarius stream traced by Blue Horizontal Branch stars", 2025, submitted to MNRAS, arXiv:2502.17319 - [DA]

Byström, A., Koposov, S., Lilleengen, S., et al., "Exploring the interaction between the MW and LMC with a large sample of blue horizontal branch stars from the DESI survey", 2024, arXiv:2410.09149 - [Obs], [DA].

Danieli, S., Kado-Fong, E., Huang, S., et al., "Merian: A Wide-Field Imaging Survey of Dwarf Galaxies at z 0.06-0.10", 2024, arXiv:2410.01884 - [Obs].

Cerny, W., Chiti, A., Geha, M., et al., "Discovery and Spectroscopic Confirmation of Aquarius III: A Low-Mass Milky Way Satellite Galaxy", 2024, arXiv:2410.00981 - [Obs], [DA].

Tan, C. Y., Cerny, W., Drlica-Wagner, A., et al., "A Pride of Satellites in the Constellation Leo? Discovery of the Leo VI Milky Way Satellite Galaxy with DELVE Early Data Release 3", 2024, arXiv:2408.00865 - [Obs], [DA].

Shrestha, M., Bostroem, K.A., Sand, D. J., et al., "Extended Shock Breakout and Early Circumstellar Interaction in SN 2024ggi", 2024, ApJL, 972, L15 - [Obs].

Valluri, M., Fagrelius, P., Koposov, S. E., et al., "GD-1 Stellar Stream and Cocoon in the DESI Early Data Release", 2024, arXiv:2407.06336 - [Obs], [DA].

DESI Collaboration, Adame A. G., Aguilar J., et al., "The Early Data Release of the Dark Energy Spectroscopic Instrument", 2024, AJ, 168, 58D - [Obs], [DA].

Luo, Y., Leauthaud, A., Greene, J., et al., "The Merian survey: design, construction, and characterization of a filter set optimized to find dwarf galaxies and measure their dark matter halo properties with weak lensing", 2024, AJ, 168, 58D - [Obs].

Pessi, T., Cartier, R., Hueichapan, E., et al., "Early flash-ionization lines in SN 2024ggi revealed by high-resolution spectroscopy", 2024, arXiv:2405.02274 - [Obs], [DA].

Yu, F., Li, T. S., Speagle, J. S., Medina, G. E., et al., "The Power of High Precision Broadband Photometry: Tracing the Milky Way Density Profile with Blue Horizontal Branch stars in the Dark Energy Survey", 2024, ApJ, 975, 81 - [DA].

Alfradique V., Bom C. R., Palmese A., et al., "A dark siren measurement of the Hubble constant using gravitational wave events from the first three LIGO/Virgo observing runs and DELVE", 2024, MNRAS, 528, 3249 - [Obs], [DA].

Heiger M. E., Li T. S., Pace A. B., et al., "Reading Between the (Spectral) Lines: Magellan/IMACS spectroscopy of the Ultra-faint Dwarf Galaxies Eridanus IV and Centaurus I", 2024, ApJ, 961, 234 - [Obs], [DA].

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Luo Y., Leauthaud A., Greene J., et al., "The Merian Survey: Design, Construction, and Characterization of a Filter Set Optimized to Find Dwarf Galaxies and Measure their Dark Matter Halo Properties with Weak Lensing", 2024, MNRAS, 530, 4988 - [Obs].

Cerny W., Drlica-Wagner A., Li T. S., et al., "DELVE 6: An Ancient, Ultra-faint Star Cluster on the Outskirts of the Magellanic Clouds", 2023, ApJL, 953, L21 - [Obs], [DA].

Cerny W., Martínez-Vázquez C. E., Drlica-Wagner A., et al., "Six More Ultra-faint Milky Way Companions Discovered in the DECam Local Volume Exploration Survey", 2023, ApJ, 953, 1 - [Obs], [DA].

Martínez, J., Förster, F., Protopapas, P. et al. "The High Cadence Transit Survey (HiTS): Compilation and Characterization of Light-curve Catalogs", 2018, AJ, 156, 186 - [Obs], [DA].

Förster, F., Moriya, T. J., Maureira, J. C. et al. "The delay of shock breakout due to circumstellar material evident in most type II supernovae", 2018, Nature Astronomy, 2, 808 - [Obs].

Abbott, B. P., Abbott, R., Abbott, T. D. et al. "A gravitational-wave standard siren measurement of the Hubble constant", 2017, Nature, 551, 85 - [Obs].

Nidever, D. L., Olsen, K., Walker, A. R.et al. "SMASH - Survey of the MAgellanic Stellar History", 2017, AJ, 154, 199 - [Obs].

Cowperthwaite, P. S., Berger, E., Villar, V. A. et al. "The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. II. UV, Optical, and Near-IR Light Curves and Comparison to Kilonova Models", 2017, ApJ, 848, L17 - [Obs].

Soares-Santos, M., Holz, D. E., Annis, J. et al. "The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. I. Discovery of the Optical Counterpart Using the Dark Energy Camera", 2017, ApJ, 848, L16 - [Obs].

Abbott, B. P., Abbott, R., Abbott, T. D. et al. "Multi-messenger Observations of a Binary Neutron Star Merger", 2017, ApJ, 848, L12 - [Obs].

Förster, F., Maureira, J. C., San Martín et al. "The High Cadence Transient Survey (HITS). I. Survey Design and Supernova Shock Breakout Constraints", 2016, ApJ, 832, 155 - [Obs], [DA].

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Conference proceedings

Medina, G. E., Muñoz, R. R., Carlin, J. L., Vivas, A. K., Hansen, C. J., Grebel, E. K., "A systematic DECam search for RR Lyrae in the outer halo of the Milky Way". Proceedings of the conference "RR Lyrae/Cepheid 2019: Frontiers of Classical Pulsators" held in Cloudcroft, NM, USA, October 13-18, 2019. Eds: Kinemuchi, K., Lovekin, C., Neilson, H., Vivas, A. K., pp. 222-226. (Link)

Medina, G. E., Lemasle, B., Grebel, E. K., Yen, S. X., "Classical Cepheids in open clusters in the era of Gaia DR2". Proceedings of the conference "RR Lyrae/Cepheid 2019: Frontiers of Classical Pulsators" held in Cloudcroft, NM, USA, October 13-18, 2019. Eds: Kinemuchi, K., Lovekin, C., Neilson, H., Vivas, A. K., pp. 334-335. (Link)

Medina, G. E., Muñoz, R. R., Vivas, A. K., Carlin, J. L., Förster, F., "Distant RR Lyrae from HiTS: Exploring the outskirts of the Milky Way". Proceedings of the conference "The RR Lyrae 2017 conference: Revival of the classical pulsators" held in Niepolomice, Poland, September 17-21, 2017. Eds: Smolec, R., Kinemuchi, K., Anderson, R., pp. 42-46. (Link)

Medina, G. E., Vivas, A. K., Muñoz, R. R., Förster, F., "Searching for distant RR Lyrae stars using the High cadence Transient Survey". Proceedings of the conference "RRL 2015: High-precision studies of RR Lyrae stars" held in Visegrad, Hungary, October 19-22, 2015. Eds: Szabados, L., Szabó, R., Kinemuchi, K., pp. 93-96. (Link)