

# Bibliography

Jeremiah K. Darling

Links to papers available at

<http://casa.colorado.edu/~jdarling/#research>

---

## REFEREED PUBLICATIONS<sup>1</sup> 109 Pubs, 11403 Citations, h-index 40, g-index 106, i10-index 93

---

**Radio AGN Hosts and Star-Formation Dominated Galaxies in the VLA Sky Survey.** J.-M. Eberhard, A. Reines, H. Gim, *J. Darling*, & J. Greene. 2023, ApJ, submitted

**Where do stars explode in the ISM? – The distribution of dense gas around massive stars and supernova remnants in M33.** S. K. Sarbadhicary, J. Wagner, E. W. Koch, N. Mayker Chen, A. K. Leroy, N. Lahén, E. Rosolowsky, K. F. Neugent, C.-G. Kim, L. Chomiuk, J. J. Dalcanton, L. A. Lopez, N. M. Pingel, R. Indebetouw, T. G. Williams, E. Tarantino, J. Donovan Meyer, E. D. Skillman, A. Smercina, A. A. Kepley, E. J. Murphy, J. Strader, T. Wong, S. Stanimirović, V. Villanueva, F. Walter, J. Ott, *J. Darling*, J. Roman-Duval, & C. E. Murray. 2023, ApJ, submitted (arXiv:2310.17694)

**The FLASH pilot survey: an H I absorption search against MRC 1-Jy radio sources.** J. N. H. S. Aditya, H. Yoon, J. R. Allison, T. An, R. Chhetri, S. J. Curran, *J. Darling*, K. L. Emig, M. Glowacki, E. Kerrison, B. S. Koribalski, E. K. Mahony, V. A. Moss, J. Morgan, E. M. Sadler, R. Soria, R. Su, S. Weng, & M. Whiting. 2023, MNRAS, in press (arXiv:2310.14571)

**Gas-dynamical Mass Measurements of the Supermassive Black Holes in the Early-Type Galaxies NGC 4786 and NGC 5193 from ALMA and HST Observations.** K. M. Kabasares, A. J. Barth, B. D. Boizelle, J. Davidson, J. M. Sy, J. Flores-Velázquez, D. A. Buote, J. L. Walsh, A. J. Baker, *J. Darling*, L. C. Ho, & J. Cohn. 2023, ApJ, submitted

**ALMA gas-dynamical mass measurement of the supermassive black hole in the red nugget relic galaxy PGC 11179.** J. H. Cohn, M. Curliss, J. L. Walsh, K. M. Kabasares, B. D. Boizelle, A. J. Barth, K. Gebhardt, K. Gültekin, A. Yıldırım, D. A. Buote, *J. Darling*, A. J. Baker, & L. C. Ho. 2023, ApJ, 958, 186 (14pp)

**An Updated Reference Frame for the Galactic Inner Parsec.** *J. Darling*, J. Paine, M. J. Reid, K. M. Menten, S. Sakai, & A. Ghez. 2023, ApJ, 955, 117 (14pp)

**The 107 GHz methanol transition is a dasar in G0.253+0.016.** A. Bulatek, A. Ginsburg, *J. Darling*, C. Henkel, & K. M. Menten. 2023, ApJ, 956, 78 (11pp)

**Wandering Black Hole Candidates in Dwarf Galaxies at VLBI Resolution.** A. J. Sargent, M. C. Johnson, A. E. Reines, N. J. Secrest, A. J. van der Horst, P. J. Cigan, *J. Darling*, & J. E. Greene. 2022, ApJ, 933, 160 (13pp)

**Black Hole Mass Measurements of Early-Type Galaxies NGC 1380 and NGC 6861 Through ALMA and HST Observations and Gas-Dynamical Modeling.** K. M. Kabasares, A. J. Barth, D. A. Buote, B. D. Boizelle, J. L. Walsh, A. J. Baker, *J. Darling*, L. C. Ho, & J. Cohn. 2022, ApJ, 934, 162 (27pp)

---

<sup>1</sup>Underlined names are (or were) Colorado graduate students, undergraduates, or postdocs. Source for citation data is Google Scholar, omitting citations of non-refereed publications.

**The Universe is Brighter in the Direction of Our Motion: Galaxy Counts and Fluxes are Consistent with the CMB Dipole.** *J. Darling.* 2022, ApJ, 931, L14 (8pp)

**Looking at the Distant Universe with the MeerKAT Array: Discovery of a Luminous OH**

**Megamaser at  $z > 0.5$ .** M. Glowacki, J. D. Collier, A. Kazemi-Moridani, B. Frank, H. Roberts, *J. Darling*, H.-R. Klöckner, N. Adams, A. J. Baker, M. Bershadsky, T. Blecher, S.-L. Blyth, R. Bowler, B. Catinella, L. Chemin, S. M. Crawford, C. Cress, R. Davé, R. Deane, E. de Blok, J. Delhaize, K. Duncan, E. Elson, S. February, E. Gawiser, P. Hatfield, J. Healy, P. Henning, K. M. Hess, I. Heywood, B. W. Holwerda, M. Hoosain, J. P. Hughes, Z. L. Hutchens, M. Jarvis, S. Kannappan, N. Katz, D. Kereš, M. Korsaga, R. C. Kraan-Korteweg, P. Lah, M. Lochner, N. Maddox, S. Makhathini, G. R. Meurer, M. Meyer, D. Obreschkow, S.-H. Oh, T. Oosterloo, J. Oppor, H. Pan, D. J. Pisano, N. Randriamiarinarivo, S. Ravindranath, A. C. Schröder, R. Skelton, O. Smirnov, M. Smith, R. S. Somerville, R. Srikanth, L. Staveley-Smith, M. Tanaka, M. Vaccari, W. van Driel, M. Verheijen, F. Walter, J. F. Wu, & M. A. Zwaan. 2022, ApJ, 931, L7 (8pp)

**The Seventeenth Data Release of the Sloan Digital Sky Surveys: Complete Release of MaNGA, MaStar and APOGEE-2 Data.** Abdurro'uf, K. Accetta, C. Aerts, et al. (340 alphabetical coauthors). 2022, ApJS, 259, 35 (40pp)

**3D Kinematics of Stellar SiO Masers in the Galactic Center.** J. Paine & J. Darling. 2022, ApJ, 927, 181 (14pp)

**Unveiling the Universe with Emerging Cosmological Probes.** M. Moresco, L. Amati, L. Amendola, S. Birrer, J. P. Blakeslee, M. Cantiello, A. Cimatti, *J. Darling*, M. Della Valle, M. Fishbach, C. Grillo, N. Hamaus, D. Holz, L. Izzo, R. Jimenez, E. Lusso, M. Meneghetti, E. Piedipalumbo, A. Pisani, A. Pourtsidou, L. Pozzetti, M. Quartin, G. Risaliti, P. Rosati, & L. Verde. 2022, Living Reviews in Relativity, 25, 6 (234pp)

**Towards Robust Constraints on Axion Dark Matter using PSR J1745–2900.** R. A. Battye, *J. Darling*, J. McDonald, & S. Srinivasan. 2022, Phys. Rev. D, 105, L021305 (5pp)

**The First Large Absorption Survey in HI (FLASH): I. Science Goals and Survey Design.** J. R. Allison, E. M. Sadler, A. D. Amaral, T. An, S. J. Curran, *J. Darling*, A. C. Edge, S. L. Ellison, K. L. Emig, B. M. Gaensler, L. Garratt-Smithson, M. Glowacki, K. Grasha, B. S. Koribalski, C. del P. Lagos, P. Lah, E. K. Mahony, S. A. Mao, R. Morganti, V. A. Moss, M. Pettini, K. A. Pimbblet, C. Power, P. Salas, L. Staveley-Smith, M. T. Whiting, O. I. Wong, H. Yoon, Z. Zheng, & M. A. Zwaan. 2022, PASA, 39, 10 (31pp)

**An ALMA Gas-dynamical Mass Measurement of the Supermassive Black Hole in the Local Compact Galaxy UGC 2698.** J. H. Cohn, J. L. Walsh, B. D. Boizelle, A. J. Barth, K. Gebhardt, K. Gültekin, A. Yıldırım, D. A. Buote, *J. Darling*, A. J. Baker, L. C. Ho, & K. M. Kabasares. 2021, ApJ, 919, 77 (18pp)

**The Galaxy Evolution Probe.** J. Glenn, C. Bradford, E. Rosolowsky, R. Amini, K. Alatalo, L. Armus, A. Benson, T.-C. Chang, *J. Darling*, P. Day, J. Domber, D. Farrah, B. Hensley, S. Lipsky, B. Moore, S. Oliver, J. Peredo, D. Redding, M. Rodgers, R. Shirley, H. Smith, J. Steeves, C. Tucker, & J. Zmuidzinas. 2021, JATIS, 7, 034004 (36pp)

**Faint Objects in Motion: The New Frontier of High Precision Astrometry.** F. Malbet, C. Boehm, A. Krone-Martins, et al. (and 83 alphabetical coauthors). 2021, Experimental Astronomy, 51, 845 (42pp)

**Gaia EDR3 Parallax Distances to the Great Carina Nebula and Its Star Clusters (Trumpler**

**14, 15, 16).** J. M. Shull, *J. Darling*, & C. W. Danforth. 2021, ApJ, 914, 18 (12pp)

**OH Megamasers in HI Surveys: Forecasts and a Machine Learning Approach to Separating Disks from Mergers.** H. Roberts, *J. Darling*, & A. J. Baker. 2021, ApJ, 911, 38 (14pp)

**Outflows, Shocks and Coronal Line Emission in a Radio-Selected AGN in a Dwarf Galaxy.** M. Molina, A. E. Reines, J. E. Greene, *J. Darling*, & J. J. Condon. 2021, ApJ, 910, 5 (17pp)

**Apertif view of the OH Megamaser IRAS 10597+5926: OH 18 cm satellite lines in wide-area HI surveys.** K. M. Hess, H. Roberts, H. Dénes, B. Adebarh, *J. Darling*, E. A. K. Adams, W. J. G. de Blok, A. Kutkin, D. M. Lucero, Raffaella Morganti, V. A. Moss, T. A. Oosterloo, R. Schulz, J. M. van der Hulst, A. H. W. M. Coolen1, S. Damstra, M. Ivashina, G. Marcel Loose, Yogesh Maan, Á. Mika, H. Mulder, M. J. Norden, L. C. Oostrum, M. Ruiter, Joeri van Leeuwen, N. J. Vermaas, D. Vohl, S. J. Wijnholds, & J. Ziemke. 2021, A&A, 647, A193 (9pp)

**The Galaxy Evolution Probe.** J. Glenn, C. Bradford, E. Rosolowsky, R. Amini, K. Alatalo, L. Armus, A. Benson, T.-C. Chang, *J. Darling*, P. Day, J. Domber, D. Farrah, B. Hensley, S. Lipsky, B. Moore, S. Oliver, J. Perido, D. Redding, M. Rodgers, R. Shirley, H. Smith, J. Steeves, C. Tucker, & J. Zmuidzinis. 2021, JATIS, 7, 034004 (36pp)

**Black Hole Mass Measurements of Radio Galaxies NGC 315 and NGC 4261 Using ALMA CO Observations.** B. D. Boizelle, J. L. Walsh, A. J. Barth, D. A. Buote, A. J. Baker, *J. Darling*, L. C. Ho, J. Cohn, & K. M. Kabasares. 2021, ApJ, 908, 19 (24pp)

**New Limits on Axionic Dark Matter from the Magnetar PSR J1745–2900.** *J. Darling*. 2020, ApJ, 900, L28 (13pp)

**Search for Axionic Dark Matter Using the Magnetar PSR J1745–2900.** *J. Darling*. 2020, Phys. Rev. Lett., 125, 121103 (11pp)

**The Evolution of Neutral Hydrogen Over the Past 11 Gyr via HI 21 cm Absorption.** K. Grasha, *J. Darling*, A. K. Leroy, & A. D. Bolatto. 2020, MNRAS, 498, 883 (21pp)

**Secular Extragalactic Parallax: Measurement Methods and Predictions for Gaia** J. Paine, *J. Darling*, R. Graziani, & H. M. Courtois. 2020, ApJ, 890, 146 (24pp)

**A New Sample of (Wandering) Massive Black Holes in Dwarf Galaxies from High Resolution Radio Observations.** A. Reines, J. Condon, *J. Darling*, & J. Greene. 2020, ApJ, 888, 36 (18pp)

**FLASH Early Science – Discovery of an intervening HI 21-cm absorber from an ASKAP survey of the GAMA 23 field.** J. R. Allison, E. M. Sadler, L. J. Davies, S. P. Driver, S. L. Ellison, M. Huynh, A. D. Kapińska, E. K. Mahony, V. A. Moss, M. T. Whiting, S. J. Curran, *J. Darling*, B. S. Koribalski, C. D. P. Lagos, M. Pettini, K. A. Pimbblet, & M. A. Voronkov. 2019, MNRAS, 494, 3627 (15pp)

**The 16th Data Release of the Sloan Digital Sky Surveys: First Release from APOGEE-2 Southern Survey and Full Release of eBOSS Spectra.** R. Ahumada, C. Allende Prieto, A. Almeida, et al. (308 alphabetical coauthors). 2020, ApJS, 249 , 3 (25pp)

**Sardinia Radio Telescope Observations of Local Group Dwarf Galaxies: I. The Cases of NGC 6822, IC 1613, and WLM.** A. Tarchi, P. Castangia, G. Surcis, A. Brunthaler, C. Henkel, M. Pawłowski, K. Menten, A. Melis, S. Casu, M. Murgia, A. Trois, R. Concu, & *J. Darling*. 2019, MNRAS, 492, 45 (15pp)

**A Search for Intrinsic HI 21 cm and OH 18 cm Absorption Toward Compact Radio Sources.** K. Grasha, *J. Darling*, A. Bolatto, A. Leroy, & J. Stocke. 2019, ApJS, 245, 3 (28pp)

- A Precision Measurement of the Mass of the Black Hole in NGC 3258 from High-Resolution ALMA Observations of its Circumnuclear Disk.** B. D. Boizelle, A. J. Barth, J. L. Walsh, D. A. Buote, A. J. Baker, *J. Darling*, & L. C. Ho. 2019, ApJ, 881, 10 (32pp)
- The Fifteenth Data Release of the Sloan Digital Sky Surveys: First Release of MaNGA-derived Quantities, Data Visualization Tools, and Stellar Library.** D. S. Aguado, R. Ahumada, A. Almeida, et al. (233 alphabetical coauthors). 2019, ApJS, 240, 23 (25pp)
- Toward a Measurement of the Transverse Peculiar Velocity of Galaxy Pairs.** A. E. Truebenbach & *J. Darling*. 2018, ApJ, 868, 69 (9pp)
- The CO Luminosity Density at High-z (COLDz) Survey: A Sensitive, Large-area Blind Search for Low-J CO Emission from Cold Gas in the Early Universe with the Karl G. Jansky Very Large Array.** R. Pavesi, C. E. Sharon, D. A. Riechers, J. A. Hodge, R. Decarli, F. Walter, C. L. Carilli, E. Daddi, I. Smail, M. Dickinson, R. J. Ivison, M. Sargent, E. da Cunha, M. Aravena, *J. Darling*, V. Smolčić, N. Z. Scoville, P. L. Capak, & J. Wagg. 2018, ApJ, 864, 49 (52pp)
- All Transverse Motion Is Peculiar: Connecting the Proper Motions of Galaxies to the Matter Power Spectrum.** *J. Darling* & A. E. Truebenbach. 2018, ApJ, 864, 37 (10pp)
- The Gaia-WISE Extragalactic Astrometric Catalog.** J. Paine, *J. Darling*, & A. Truebenbach. 2018, ApJS, 236, 37 (9pp)
- The Dual Role of Starbursts and Active Galactic Nuclei in Driving Extreme Molecular Outflows.** A. Gowardhan, H. Spoon, D. A. Riechers, E. González-Alfonso, D. Farrah, J. Fischer, *J. Darling*, C. Fergulio, J. Afonso, & L. Bizzocchi. 2018, ApJ, 859, 35 (23pp)
- Astrometric Limits on the Stochastic Gravitational Wave Background.** *J. Darling*, A. E. Truebenbach, & J. Paine. 2018, ApJ, 861, 113 (12pp)
- The Fourteenth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the Extended Baryon Oscillation Spectroscopic Survey and from the Second Phase of the Apache Point Observatory Galactic Evolution Experiment.** B. Abolfathi, D. S. Aguado, G. Aguilar, et al. 2018, ApJ, 235, 42 (19pp)
- Distributed Star Formation Throughout the Galactic Center Cloud Sgr B2.** A. Ginsburg, J. Bally, A. Barnes, N. Bastian, C. Battersby, H. Beuther, C. Brogan, Y. Contreras, J. Corby, *J. Darling*, C. De Pree, R. Galván-Madrid, G. Garay, J. Henshaw, T. Hunter, J. M. D. Kruijssen, S. Longmore, X. Lu, F. Meng, E. A.C. Mills, J. Ott, J. E. Pineda, Á. Sánchez-Monge, P. Schilke, A. Schmiedeke, D. Walker, & D. Wilner. 2018, ApJ, 853, 171 (28pp).
- The 13th Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the SDSS-IV Survey Mapping Nearby Galaxies at Apache Point Observatory.** F. D. Albareti, P. Allende, A. Carlos, et al. (344 alphabetical coauthors). 2017, ApJS, 233, 25 (25pp)
- The VLBA Extragalactic Proper Motion Catalog and a Measurement of the Secular Aberration Drift.** A. E. Truebenbach & *J. Darling*. 2017, ApJS, 233, 3 (16pp)
- ALMA Observations of Circumnuclear Disks in Early-type Galaxies:  $^{12}\text{CO}(2-1)$  and Continuum Properties.** B. D. Boizelle, A. J. Barth, *J. Darling*, A. J. Baker, D. A. Buote, L. C. Ho, & J. L. Walsh. 2017, ApJ, 845, 170 (20pp)
- Sloan Digital Sky Survey IV: Mapping the Milky Way, Nearby Galaxies, and the Distant Universe.** M. R. Blanton, M. A. Bershady, B. Abolfathi, et al. (363 coauthors). 2017, AJ, 154, 28 (35pp)

**The Invisible AGN Catalogue: A Mid-Infrared-Radio Selection Method for Optically Faint Active Galactic Nuclei.** A. E. Truebenbach & J. Darling. 2017, MNRAS, 468, 196 (10pp)

**Thermal Feedback in the High-mass Star- and Cluster-forming Region W51.** A. Ginsburg, C. Goddi, J. M. D. Kruijssen, J. Bally, R. Smith, R. Galván-Madrid, E. A. C. Mills, K. Wang, J. E. Dale, J. Darling, E. Rosolowsky, R. Loughnane, L. Testi, & N. Bastian. 2017, ApJ, 842, 92 (34pp)

**How to Detect Inclined Water Maser Disks (and Possibly Measure Black Hole Masses).** J. Darling. 2017, ApJ, 837, 100 (15pp)

**A Nearly Naked Supermassive Black Hole.** J. J. Condon, J. Darling, Y. Y. Kovalev, & L. Petrov. 2017, ApJ, 834, 184 (8pp)

**Toward gas exhaustion in the W51 high-mass protoclusters.** A. Ginsburg, W. M. Goss, C. Goddi, R. Galván-Madrid, J. E. Dale, J. Bally, C. D. Battersby, A. Youngblood, R. Sankrit, R. Smith, J. Darling, J. M. D. Kruijssen, & H. B. Liu. 2016, A&A, 595, A27 (27pp)

**Water Masers in the Andromeda Galaxy. II. Where Do Masers Arise?** N. Amiri & J. Darling. 2016, ApJ, 826, 136 (14pp)

**Water Masers in the Andromeda Galaxy. I. A Survey for Water Masers, Ammonia, and Hydrogen Recombination Lines.** J. Darling, B. Gerard, N. Amiri, & K. Lawrence. 2016, ApJ, 826, 24 (11pp)

**Identifying OH Imposters in the ALFALFA Neutral Hydrogen Survey.** K. A. Suess, J. Darling, M. P. Haynes, & R. Giovanelli. 2016, MNRAS, 459, 220 (12pp)

**Measurement of the Black Hole Mass in NGC 1332 from ALMA Observations at 0.044 arcsecond Resolution.** A. J. Barth, B. D. Boizelle, J. Darling, A. J. Baker, D. A. Buote, L. C. Ho, & J. L. Walsh. 2016, ApJ, 822, L28 (5pp)

**Toward Precision Black Hole Masses with ALMA: NGC 1332 as a Case Study in Molecular Disk Dynamics.** A. J. Barth, J. Darling, A. J. Baker, B. D. Boizelle, D. A. Buote, L. C. Ho, & J. L. Walsh. 2016, ApJ, 823, 51 (22pp)

**Invisible Active Galactic Nuclei II: Radio Morphologies and Five New HI 21 cm Absorption Line Detections.** T. Yan, J. T. Stocke, J. Darling, E. Momjian, S. Sharma, & N. Kanekar. 2016, AJ, 151, 74 (43pp)

**Dense Gas in the Galactic Central Molecular Zone is Warm and Heated by Turbulence.** A. Ginsburg, C. Henkel, Y. Ao, D. Riquelme, J. Kauffmann, T. Pillai, E. A. C. Mills, M. A. Requena-Torres, K. Immer, L. Testi, J. Ott, J. Bally, C. Battersby, J. Darling, S. Aalto, T. Stanke, S. Kendrew, J. M. D. Kruijssen, S. Longmore, J. Dale, R. Guesten, & K. M. Menten. 2016, A&A, 586, A50 (31pp)

**The SDSS-IV extended Baryon Oscillation Spectroscopic Survey: Overview and Early Data.** K. S. Dawson, J.-P. Kneib, W. J. Percival, S. Alam, F. D. Albareti, (+141 alphabetical coauthors). 2016, AJ, 151, 44 (34pp)

**The Dense Gas Mass Fraction in the W51 Cloud and its Protoclusters.** A. Ginsburg, J. Bally, C. Battersby, A. Youngblood, J. Darling, E. Rosolowsky, H. Arce, & M. E. Lebrón Santos. 2015, A&A, 573, A106 (27pp)

**The Hubble Expansion is Isotropic in the Epoch of Dark Energy.** J. Darling. 2014, MNRAS, 442, L66 (5pp)

**The Onset of Massive Star Formation: The Evolution of Temperature and Density Structure in an Infrared Dark Cloud.** C. Battersby, A. Ginsburg, J. Bally, S. Longmore, M. Dunham, & J.

*Darling.* 2014, ApJ, 787, 113 (21pp)

**Detection of Chloronium and Measurement of the  $^{35}\text{Cl}/^{37}\text{Cl}$  Isotopic Ratio at  $z = 0.89$  toward PKS 1830–211.** S. Muller, J. H. Black, M. Guélin, C. Henkel, F. Combes, M. Gérin, S. Aalto, A. Beelen, *J. Darling*, C. Horellou, S. Martín, K. M. Menten, Dinh V-Trung, & M. A. Zwaan. 2014, A&A, 566, L6 (4pp)

**An ALMA Early Science Survey of Molecular Absorption Lines toward PKS 1830–211.**

**Analysis of the Absorption Profiles.** S. Muller, F. Combes, M. Guélin, M. Gérin, S. Aalto, A. Beelen, J. H. Black, S. J. Curran, *J. Darling*, Dinh V-Trung, S. García-Burillo, C. Henkel, C. Horellou, S. Martín, I. Martí-Vidal, K. M. Menten, M. T. Murphy, J. Ott, T. Wiklind, & M. A. Zwaan. 2014, A&A, 566, A112 (21pp)

**The Comparison of Physical Properties Derived from Gas and Dust in a Massive Star-forming Region.** C. Battersby, J. Bally, M. Dunham, A. Ginsburg, S. Longmore, & *J. Darling*. 2014, ApJ, 786, 116 (10pp)

**Objects Appear Smaller as they Recede: How Proper Motions can Directly Reveal the Cosmic Expansion, Provide Geometric Distances, and Measure the Hubble Constant.** *J. Darling*. 2013, ApJ, 777, L21 (5pp)

**Ammonia Thermometry of Star Forming Galaxies.** J. G. Mangum, *J. Darling*, C. Henkel, K. M. Menten, M. MacGregor, B. E. Svoboda, & E. Schinnerer. 2013, ApJ, 779, 33 (27pp)

**A Measurement of the Turbulence-Driven Density Distribution in a Non-Star-Forming Molecular Cloud.** A. Ginsburg, C. Federrath, & *J. Darling*. 2013, ApJ, 779, 50 (9pp)

**Probing the Jet Base of the Blazar PKS 1830-211 from the Chromatic Variability of its Lensed Images. Serendipitous ALMA Observations of a Strong Gamma-Ray Flare.** I. Martí-Vidal, S. Muller, F. Combes, S. Aalto, A. Beelen, *J. Darling*, M. Guélin, C. Henkel, C. Horellou, J. M. Marcaide, S. Martín, K. M. Menten, D. V-Trung, M. Zwaan. 2013, A&A, 558, A123 (12pp)

**Formaldehyde Densitometry of Starburst Galaxies: Density-Independent Global Star Formation.** J. G. Mangum, *J. Darling*, C. Henkel, & K. M. Menten. 2013, ApJ, 766, 108 (26pp)

**Toward a Direct Measurement of the Cosmic Acceleration.** *J. Darling*. 2012, ApJ, 761, L26 (5pp)

**Invisible AGN I: Sample Selection and Optical/Near-IR Spectral Energy Distributions.** T. Yan, J. T. Stocke, *J. Darling*, & F. Hearty. 2012, AJ, 144, 124 (13pp)

**Formaldehyde Silhouettes Against the Cosmic Microwave Background: A Mass-Limited, Distance-Independent, Extinction-Free Tracer of Star Formation Across the Epoch of Galaxy Evolution.** *J. Darling* & B. Zeiger. 2012, ApJ, 749, L33 (6pp)

**The ALFALFA HI Absorption Pilot Survey: A Wide-Area Blind Damped Lyman Alpha System Survey of the Local Universe.** *J. Darling*, E. P. Macdonald, M. P. Haynes, R. Giovanelli. 2011, ApJ, 742, 60 (7pp)

**Galactic H<sub>2</sub>CO Densitometry I: Pilot Survey of Ultracompact HII Regions and Methodology.** A. Ginsburg, *J. Darling*, C. Battersby, B. Zeiger, & J. Bally. 2011, ApJ, 736, 149 (24pp)

**Water Masers in the Andromeda Galaxy: The First Step Toward Proper Motion.** *J. Darling*. 2011, ApJ, 732, L2 (6pp)

**Mid-Infrared Properties of OH Megamaser Host Galaxies. I. Spitzer IRS Low- and High-Resolution Spectroscopy.** K. W. Willett, *J. Darling*, H. W. W. Spoon, V. Charmandaris, & L.

Armus. 2011, ApJS, in press, 22 pages

**Mid-Infrared Properties of OH Megamaser Host Galaxies. II. Analysis and Modeling of the Maser Environment.** K. W. Willett, *J. Darling*, H. W. W. Spoon, V. Charmandaris, & L. Armus. 2011, ApJ, in press, 14 pages

**Water Masers Associated with Star Formation in the Antennae Galaxies.** C. Brogan, K. Johnson, & *J. Darling*. 2010, ApJ, 716, L51-L56

**Spitzer Mid-IR Spectroscopy of Compact Symmetric Objects: Are Radio Galaxies Powered by Black Hole Spin?** K. W. Willett, J. T. Stocke, *J. Darling*, & E. S. Perlman. 2010, ApJ, 713, 1393–1412

**Formaldehyde Anti-Inversion at  $z = 0.68$  in the Gravitational Lens B0218+357.** B. Zeiger & *J. Darling*. 2010, ApJ, 709, 386–395

**New Searches for HI 21 cm in Damped Lyman  $\alpha$  Absorption Systems.** S. J. Curran, P. Tzanavaris, *J. Darling*, M. T. Whiting, J. K. Webb, C. Bignell, R. Athreya, & M. T. Murphy. 2009, MNRAS, 402, 35–45

**Science with ASKAP, The Australian Square-Kilometre-Array Pathfinder.** S. Johnston, R. Taylor, M. Bailes, N. Bartel, C. Baugh, M. Bietenholz, C. Blake, R. Braun, J. Brown, S. Chatterjee, *J. Darling*, (+39 coauthors). 2008, Experimental Astronomy, 22, 151–273

**Ubiquitous Water Masers in Nearby Star-Forming Galaxies.** *J. Darling*, C. Brogan, & K. Johnson. 2008, ApJ, 685, L39–L42

**Properties of Active Galaxies Deduced from HI Observations.** L. C. Ho, *J. Darling*, & J. E. Greene. 2008, ApJ, 681, 128–140

**A New HI Survey of Active Galaxies.** L. C. Ho, *J. Darling*, & J. E. Greene. 2008, ApJS, 177, 103–130

**Formaldehyde Densitometry of Starburst Galaxies.** J. G. Mangum, *J. Darling*, K. M. Menten, & C. Henkel. 2008, ApJ, 673, 832–846

**Science with the Australian Square Kilometre Array Pathfinder.** S. Johnston, M. Bailes, N. Bartel, C. Baugh, M. Bietenholz, C. Blake, R. Braun, J. Brown, S. Chatterjee, *J. Darling*, (+40 coauthors). 2007, PASA, 24, 174–188

**HI and OH Absorption in the Lensing Galaxy of MG J0414+0534.** S. J. Curran, *J. Darling*, A. D. Bolatto, M. T. Whiting, C. Bignell, & J. K. Webb. 2007, MNRAS, 382, L11–L15

**A Dense Gas Trigger for OH Megamasers.** *J. Darling*. 2007, ApJ, 669, L9–L12

**Optical Spectral Classification of Major Mergers: OH Megamaser Hosts Versus Non-Masing (Ultra)Luminous Infrared Galaxies.** *J. Darling* & R. Giovanelli. 2006, AJ, 132, 2596–2617

**The Arecibo Legacy Fast ALFA Survey. I. Science Goals, Survey Design, and Strategy.** R. Giovanelli, et al. 2005, AJ, 130, 2598–2612

**On the X-Ray Properties of OH Megamaser Sources: Chandra Snapshot Observations.** C. Vignali, W. N. Brandt, A. Comastri, & *J. Darling*. 2005, MNRAS, 364, 99–106

**High Resolution Imaging of the OH Megamaser Emission in IRAS 12032+1707 and IRAS 14070+0525.** Y. M. Pihlström, W. A. Baan, *J. Darling*, & H.-R. Klöckner. 2005, ApJ, 618, 705–711

**Detection of 21 cm HI Absorption at  $z = 0.78$  in a Survey of Radio Continuum Sources.** *J. Darling*, R. Giovanelli, M. P. Haynes, A. D. Bolatto, & G. C. Bower. 2004, ApJ, 613, L101–L104

**A Laboratory for Constraining Cosmic Evolution of the Fine Structure Constant: Conjugate**

- 18 cm OH Lines Toward PKS 1413+135 at z = 0.2467.** *J. Darling.* 2004, ApJ, 612, 58–63
- Methods for Constraining Fine Structure Constant Evolution with OH Microwave Transitions.** *J. Darling.* 2003, Phys. Rev. Lett., 91, 011301
- Peculiar Broad Absorption Line Quasars Found in The Digitized Palomar Observatory Sky Survey.** R. J. Brunner, P. B. Hall, S. G. Djorgovski, R. R. Gal, A. A. Mahabal, P. A. A. Lopes, R. R. De Carvalho, S. C. Odewahn, S. Castro, D. Thompson, F. Chaffee, *J. Darling*, & V. Desai. 2003, AJ, 126, 53–62
- A Search for 6.7 GHz Methanol Masers in OH Megamaser Galaxies at 0.11<z<0.27.** *J. Darling*, P. Goldsmith, D. Li, & R. Giovanelli. 2003, AJ, 125, 1177–1181
- The OH Megamaser Luminosity Function.** *J. Darling* & R. Giovanelli. 2002, ApJ, 572, 810–822
- The Discovery of Time Variability in OH Megamasers.** *J. Darling* & R. Giovanelli. 2002, ApJ, 569, L87–L90
- A Search for OH Megamasers at  $z > 0.1$ . III. The Complete Survey.** *J. Darling* & R. Giovanelli. 2002, AJ, 124, 100–126
- A Search for OH Megamasers at  $z > 0.1$ . II. Further Results.** *J. Darling* & R. Giovanelli. 2001, AJ, 121, 1278–1293
- A Search for OH Megamasers at  $z > 0.1$ . I. Preliminary Results.** *J. Darling* & R. Giovanelli. 2000, AJ, 119, 3003–3014
- The Optical/Infrared Astronomical Quality of High Atacama Sites. I. Optical Seeing** R. Giovanelli, *J. Darling*, M. Sarazin, J. Yu, P. Harvey, C. Henderson, W. Hoffman, L. Keller, D. Barry, J. Cordes, S. Eikenberry, G. Gull, J. Harrington, J. D. Smith, G. Stacey, & M. Swain. 2001, PASP, 113, 789–802
- The Optical/Infrared Astronomical Quality of High Atacama Sites. II. Infrared Characteristics** R. Giovanelli, *J. Darling*, C. Henderson, W. Hoffman, D. Barry, J. Cordes, S. Eikenberry, G. Gull, L. Keller, J. D. Smith, & G. Stacey. 2001, PASP, 113, 803–813
- The Nonvariability of the Progenitor of Supernova 1993J in M81.** J. G. Cohen, *J. Darling*, & A. Porter. 1995, AJ, 110, 308–311

## REFEREED REPORTS

---

- Report Series: Committee on Astronomy and Astrophysics: Mission Concept Studies.**  
Committee on Astronomy and Astrophysics, National Academies of Sciences, Engineering, and Medicine. 2018. Washington, DC: The National Academies Press, <https://doi.org/10.17226/25212>.
- Report Series: Committee on Astronomy and Astrophysics: Small Explorer Missions.**  
Committee on Astronomy and Astrophysics, National Academies of Sciences, Engineering, and Medicine. 2017. Washington, DC: The National Academies Press, <https://doi.org/10.17226/24808>.

## NON-REFEREED JOURNAL PUBLICATIONS

---

- Atomic Clocks in Space: A Search for Rubidium and Cesium Masers in M-and L-dwarfs.** *J. Darling.* 2021, RNAAS, 5, 20 (3pp)
- The  $^{87}\text{Rb}$  Atomic Clock Maser in Giant Stars.** *J. Darling.* 2018, RNAAS, 2, 15 (2pp)

## REFEREED BOOK CHAPTERS

---

**A Formaldehyde Deep Field.** *J. Darling.* 2018, Astronomical Society of the Pacific, “Science with a Next-Generation Very Large Array,” ed. E. Murhpy

**Extragalactic Proper Motions: Gravitational Waves and Cosmology.** *J. Darling, A. Truebenbach, & J. Paine.* 2018, Astronomical Society of the Pacific, “Science with a Next-Generation Very Large Array,” ed. E. Murhpy

**Offset Active Galactic Nuclei.** L. Blecha, W. Brisken, S. Burke-Spolaor, F. Civano, J. Comerford, *J. Darling*, J. Lazio, & T. Macarrone. 2018, Astronomical Society of the Pacific, “Science with a Next-Generation Very Large Array,” ed. E. Murhpy

## CONFERENCE PROCEEDINGS, BOOK CHAPTERS, & WHITE PAPERS

---

**Kinematics in the Galactic Center with SiO masers.** *J. Paine & J. Darling.* 2023, Cosmic Masers: Proper Motion toward the Next-Generation Large Projects, Proceedings IAU Symposium 380, eds. T. Hirota, H. Imai, K. Menten, & Y. Pihlström (4pp)

**The Past, Present, and Groundbreaking Future of OH Megamaser Discoveries.** *H. Roberts & J. Darling.* 2023, Cosmic Masers: Proper Motion toward the Next-Generation Large Projects, Proceedings IAU Symposium 380, eds. T. Hirota, H. Imai, K. Menten, & Y. Pihlström (5pp)

**Getting Ready for LISA: The Data, Support and Preparation Needed to Maximize US Participation in Space-Based Gravitational Wave Science.** K. Holley-Bockelmann, J. Bellovary, P. Bender, E. Berti, W. Brown, R. Caldwell, N. Cornish, *J. Darling*, M. Digman, M. Eracleous, K. Gultekin, Z. Haiman, J. Key, S. Larson, X. Liu, S. McWilliams, P. Natarajan, D. Shoemaker, D. Shoemaker, K. L. Smith, M. Soares-Santos, & R. Stebbins. 2020, NASA LISA Study Team report, arXiv:2012.02650

**Direct Detection of Cosmic Acceleration via Redshift Drift.** S. Eikenberry, A. Gonzalez, R. Amezcua Correa, J. Conklin, *J. Darling*, N. Law, J. Liske, G. Mueller, P. Plavchan, R. Quimby, Z. Slepian, R. D. Stelter, & A. Townsend. 2020, Snowmass 2021 Letter of Interest.

**ESA Voyage 2050 White Paper — Faint Objects in Motion: The New Frontier of High Precision Astrometry.** F. Malbet, U. Abbas, J. Alves, C. Boehm, W. Brown, L. Chemin, A. Correia, F. Courbin, *J. Darling*, A. Diaferio, M. Fortin, M. Fridlund, O. Gnedin, B. Holl, A. Krone-Martins, A. Léger, L. Labadie, J. Laskar, G. Mamon, B. McArthur, D. Michalik, A. Moitinho, M. Oertel, L. Ostorero, J. Schneider, P. Scott, M. Shao, A. Sozzetti, J. Tomsick, M. Valluri, & R. Wyse. 2019, ESA Voyage 2050 White Paper (arXiv:1910.08028; 24pp)

**More than Star Formation: High-J CO SLEDs of High-z Galaxies.** C. E. Sharon, R. Chng, K. K. Gurara, A. Weiß, *J. Darling*, D. Riechers, & C. Ferkinhoff. 2019, Uncovering Early Galaxy Evolution in the ALMA and JWST Era, Proceedings IAU Symposium 352, eds. E. da Cunha & J. Hodge (5pp)

**The Cosmic Accelerometer.** S. Eikenberry, A. Gonzalez, *J. Darling*, J. Liske, Z. Slepian, G. Mueller, J. Conklin, P. Fulda, C. Mendes de Oliveira, M. Bentz, S. Jeram, C. Dong, A. Townsend, & L. Mariko. 2019, Astro2020 Decadal Survey Project White Paper (13pp)

**The Galaxy Evolution Probe.** Jason Glenn, K. Alatalo, R. Amini, L. Armus, J. Bally, A. Benson, C. M. Bradford, J. Comerford, *J. Darling*, P. Day, J. Domber, D. Farrah, A. Fyhrie, M. Shannon, B. Hensley, S. Lipsky, B. Moore, E. Nelson, S. Oliver, B. Oppenheimer, D. Redding, M. Rodgers, E. Rosolowsky,

R. Shirley, H. Smith, J. Steeves, A. Tielens, C. Tucker, G. Wu, & J. Zmuidzinas. 2019, Astro2020 Decadal Survey Project White Paper (24pp)

**Extragalactic Proper Motions: Gravitational Waves and Cosmology.** *J. Darling*, A. Truebenbach, & J. Paine. 2019, BAAS, 51, 139 (Astro2020 Decadal Survey Science White Paper; 8pp)

**A Formaldehyde Deep Field.** *J. Darling*. 2019, BAAS, 51, 147 (Astro2020 Decadal Survey Science White Paper; 7pp)

**A Direct Measure of Cosmic Acceleration.** S. Eikenberry, A. Gonzalez, *J. Darling*, Z. Slepian, G. Mueller, J. Conklin, P. Fulda, S. Jeram, C. Dong, & A. Townsend. 2019, BAAS, 51, 283 (Astro2020 Decadal Survey Science White Paper; 7pp)

**Detecting Offset Active Galactic Nuclei.** L. Blecha, W. Brisken, S. Burke-Spoloar, F. Civano, J. Comerford, *J. Darling*, T. J. W. Lazio, & T. J. Maccarone. 2019, Astro2020 Decadal Survey Science White Paper, arXiv:1903.09301 (8pp)

**The Evolution of the Cosmic Molecular Gas Density.** F. Walter, C. Carilli, R. Decarli, et al. (40 coauthors). 2019, BAAS, 51, 442 (Astro2020 Decadal Survey Science White Paper; 7pp)

**Local Constraints on Supermassive Black Hole Seeds.** R. Plotkin, A. E. Reines, K. Nyland, *J. Darling*, E. Gallo, & J. E. Greene. 2019, BAAS, 51, 315 (Astro2020 Decadal Survey Science White Paper; 8pp)

**The Next Generation Celestial Reference Frame.** M. Johnson, F. Schinzel, *J. Darling*, N. Secrest, B. Dorland, A. Fey, L. Petrov, A. Beasley, W. Brisken, J. Gipson, D. Gordon, L. Hunt, & J. Lazio. 2019, BAAS, 51, 273 (Astro2020 Decadal Survey Science White Paper; 8pp)

**The Galaxy Evolution Probe: A concept for a mid and far-infrared space observatory.** J. Glenn, C. M. Bradford, R. Amini, B. Moore, A. Benson, L. Armus, K. Alatalo, *J. Darling*, P. Day, J. Domber, et. al. 2018, SPIE, Space Telescopes and Instrumentation 2018: Optical, Infrared, and Millimeter Wave, eds. M. Lystrup, H. A. MacEwen, G. G. Fazio, 10698 (16pp)

**Sardinia Radio Telescope (SRT) observations of Local Group dwarf galaxies.** A. Tarchi, P. Castangia, G. Surcis, A. Brunthaler, K. M. Menten, M. S. Pawlowski, A. Melis, S. Casu, M. Murgia, A. Trois, R. Concu, C. Henkel, & *J. Darling*. 2018, Proceedings of the International Astronomical Union, "Astrophysical Masers: Unlocking the Mysteries of the Universe," 13, S336, 109 (4pp)

**Densitometry and Thermometry of Starburst Galaxies.** J. G. Mangum, *J. Darling*, K. M. Menten, C. Henkel, S. Aalto, M. Spaans, P. van der Werf, A. Ginsburg, E. Fomalont, B. Cotton. 2016, 6th Zermatt ISM Symposium on Conditions and Impact of Star Formation: From Lab to Space, eds. R. Simon, R. Schaaf, J. Stutzki J, EDP Sciences, 61 (5pp)

**Time Domain, Fundamental Physics, and Cosmology.** G. C. Bower, P. Demorest, J. Braatz, A. Broderick, S. Burke-Spoloar, B. Butler, T.-C. Chang, L. Chomiuk, J. Cordes, *J. Darling*, J. Eilek, G. Hallinan, N. Kanekar, M. Kramer, D. Marrone, W. Max-Moerbeck, B. Metzger, M. Morales, S. Myers, R. Osten, F. Owen, M. Rupen, & A. Siemion. 2015, Next Generation Very Large Array Memo No. 9, Science Working Group 4, astro-ph/1510.06432 (42pp)

**Densitometry of Active Star Forming Galaxies.** C. Henkel, J. G. Mangum, *J. Darling*, & K. M. Menten. 2013, Molecular Gas, Dust, and Star Formation in Galaxies, Proceedings of the IAU Symp. 292, eds. J. Ott & T. Wong, 239 (4pp)

**Masers in Starburst Galaxies.** *J. Darling*. 2012, Cosmic Masers — from OH to H<sub>o</sub>, Proceedings IAU Symp. 287, eds. R. Booth, E. Humphries, & W. Vlemmings, 333 (7pp)

**VLBA Observations of a Complete Sample of 2MASS Galaxies.** J. Condon, *J. Darling*, Y. Y. Kovalev, & L. Petrov. 2011, 11th Asian-Pacific Regional IAU Meeting, NARIT Conference Series, arXiv:1110.6252 (2pp)

**Densitometry and Thermometry of Starburst Galaxies.** J. G. Mangum, *J. Darling*, K. M. Menten, C. Henkel, & M. MacGregor. 2011, 5th Zermatt ISM Symposium, EDP Sciences, 52, 71 (4pp)

**How Do Galaxies Accrete Gas and Form Stars?** M. E. Putman et al. (46 authors). 2009, Astronomy and Astrophysics Decadal Survey white paper (8pp)

**A Radio Sky Surveys Project with the Allen Telescope Array** G. Bower et al. (52 authors). 2009, Astronomy and Astrophysics Decadal Survey white paper (20pp)

**Masers in Starburst Galaxies** *J. Darling*. 2007, Proc. IAU Symp. 242, Astrophysical Masers and Their Environments, eds. J. M. Chapman & W. A. Baan, 242, 417 (10pp)

**Formaldehyde: A High Redshift Tracer of Pre-Starburst Gas?** *J. Darling*. 2006, ASP Conf. Ser., From Z-Machines to ALMA: (Sub)millimeter Spectroscopy of Galaxies, eds. A. J. Baker, J. Glenn, A. I. Harris, J. G. Mangum, & M. S. Yun., 375, 208 (7pp)

**Searching for High-Redshift Centimeter-Wave Continuum, Line, and Maser Emission Using the Square Kilometer Array.** A. W. Blain, C. Carilli, & *J. Darling*. 2004, Science with the Square Kilometer Array, eds. C. Carilli & S. Rawlings, New Astronomy Reviews, 48, 1247 (11pp)

**Measuring Changes in the Fundamental Constants with Redshifted Radio Absorption Lines.** S. J. Curran, N. Kanekar, & *J. Darling*. 2004, Science with the Square Kilometer Array, eds. C. Carilli & S. Rawlings, New Astronomy Reviews, 48, 1095 (11pp)

**OH Megamasers: Discoveries, Insights, and Future Directions.** *J. Darling*. 2005, ASP Conf. Ser., Future Directions in High Resolution Astronomy: The 10th Anniversary of the VLBA, ed. J. D. Romney & M. J. Reid, 340, 216 (8pp)

**The Arecibo OH Megamaser Survey and the Galaxy Merger Rate.** *J. Darling*, and R. Giovanelli. 2000, ASP Conf. Ser., Gas and Galaxy Evolution, ed. J. Hibbard, M. Rupen, & J. van Gorkom, 240, 200 (2pp)

**A Search for OH Megamasers at  $z > 0.1$ : Preliminary Results.** *J. Darling*, and R. Giovanelli. 2001, ASP Conf. Ser., Science with the Atacama Large Millimeter Array, ed. A. Wootten, 235, 309 (4pp)

**Luminosity Function of  $z > 4$  Quasars from the Second Palomar Sky Survey.** J. D. Kennefick, *J. Darling*, S. G. Djorgovski, & R. R. de Carvalho. 1997, Young Galaxies and QSO Absorption-Line Systems, ASP Conference Series, Vol. 114, ed. Sueli M. Viegas, Ruth Gruenwald, & Reinaldo R. de Carvalho, 95 (4pp)

## **ABSTRACTS**

---

**Is the Rest Frame of the Universe Universal?** *J. Darling*. 2023, “New Eyes on the Universe: SKA and ngVLA” meeting in Vancouver, BC, Canada

**Kinematics in the Galactic Center with SiO masers.** J. Paine & *J. Darling*. 2023, American Astronomical Society (AAS) Meeting Abstracts, 55, 2, 220.02

**The Past, Present, and Groundbreaking Future of OH Megamaser Discoveries.** H. Roberts & *J. Darling*. 2023, AAS Meeting Abstracts, 55, 2, 122.02

**Constraining the Impact of Circumnuclear Disk Warping on Black Hole Mass Measurements**

**With ALMA CO Imaging.** B. Boizelle, M. Laker, A. Barth, J. Walsh, J. Cohn, K. Kabasares, M. Curliss, D. Buote, *J. Darling*, A. Baker, & L. Ho. 2023, AAS Meeting Abstracts, 55, 2, 351.04

**A Molecular Gas-Dynamical Mass Measurement of the Supermassive Black Hole in Early-Type Galaxy ESO 208-G21 Through ALMA CO (2-1) and HST Observations.** K. Kabasares, A. Barth, D. Buote, B. Boizelle, J. Walsh, A. Baker, *J. Darling*, L. Ho, & J. Cohn. 2023, AAS Meeting Abstracts, 55, 2, 258.05

**Mapping Dust Attenuation in Luminous Early-Type Galaxies.** J. Davidson, B. Boizelle, A. Baker, A. Barth, D. Buote, *J. Darling*, L. Ho, J. Walsh, J. Cohn, & K. Kabasares. 2023, AAS Meeting Abstracts, 55, 2, 270.02

**Molecular Line Search in Archival ALMA Imaging of M87.** X. Li, B. Boizelle, A. Barth, J. Walsh, & *J. Darling*. 2022, AAS Meeting 240, #105.12

**Modeling Warped Disk Structures in Galaxy Nuclei using ALMA Observations.** M. Laker, B. Boizelle, J. Cohn, J. Walsh, A. Barth, D. Buote, & *J. Darling*. 2022, AAS Meeting 240, #243.04

**Black Hole Mass Estimates of Early-Type Galaxies NGC 4786, NGC 5193, and NGC 3245 Using ALMA CO Observations and Gas-Dynamical Models.** K. Kabasares, A. Barth, D. Buote, B. Boizelle, J. Walsh, A. Baker, *J. Darling*, L. Ho, J. Cohn, J. Sy, & J. Flores-Velázquez. 2022, AAS Meeting 240, #343.01

**A luminous OH megamaser at  $z > 0.5$ .** A. Kazemi-Moridani, M. Glowacki, J. Collier, B. Frank, H. Roberts, *J. Darling*, H.-R. Kloeckner, & Laduma Collaboration. 2022, AAS Meeting 240, #412.06

**Cosmology with the Secular Redshift Drift.** *J. Darling*. 2021, “Non-Standard Cosmological Probes” session at the Sixteenth Marcel Grossmann meeting (virtual)

**Black Hole Mass Measurements of Radio Galaxies NGC 315 and NGC 4261 Using ALMA CO Observations.** B. D. Boizelle, J. L. Walsh, A. J. Barth, D. A. Buote, A. J. Baker, *J. Darling*, L. C. Ho, J. Cohn, & K. M. Kabasares. 2021, AAS Meeting 237, #427.03

**New Constraints on Axionic Dark Matter from Spectra of the Galactic Center Magnetar.** *J. Darling*. 2021, AAS Meeting 237, #425.02

**3D Kinematics of SiO Masers in the Central Parsec of the Galactic Center.** J. Paine & *J. Darling*. 2021, AAS Meeting 237, #343.02

**Identification of OH Megamasers in Untargeted HI Surveys using Machine Learning.** H. Roberts, *J. Darling*, A. J. Baker, K. M. Hess, & Apertif Team. 2021, AAS Meeting 237, #235.05

**The Extragalactic Proper Motion of the Acoustic Scale.** R. Bowyer & *J. Darling*. 2021, AAS Meeting 237, #525.07

**Gas-Dynamical Mass Measurement of the Supermassive Black Hole in the Local Compact Galaxy UGC 2698.** J. Cohn, J. Walsh, B. Boizelle, A. Barth, K. Gebhardt, K. Gültekin, A. Yıldırım, *J. Darling*, A. Baker, L. Ho, D. Buote, & K. Kabasares. 2021, AAS Meeting 237, #427.04

**Measurement of the Black Hole Mass in NGC 4786 from ALMA CO(2-1) Observations.** J. M. Sy, K. Kabasares, A. J. Barth, L. C. Ho, B. D. Boizelle, J. L. Walsh, J. Cohn, *J. Darling*, & A. J. Baker. 2021, AAS Meeting 237, #539.04

**Wandering Massive Black Holes in Dwarf Galaxies.** A. Reines, J. Condon, *J. Darling*, & J. Greene. 2020, AAS Meeting 235, #344.05

**Secular Extragalactic Parallax: Measurement Methods and Predictions for Gaia.** J. Paine,

*J. Darling*, R. Graziani, & H. Courtois. 2020, AAS Meeting 235, #279.08

**Measurements of the Black Hole Masses in NGC 1380 and NGC 6861 from ALMA CO(2-1)**

**Observations.** K. M. Kabasares, A. J. Barth, D. Buote, B. Boizelle, J. Walsh, L. Ho, *J. Darling*, & A. Baker. 2020, AAS Meeting 235, #213.03

**OH Megamasers: Unintended Discoveries (or Contaminants) in Untargeted HI Line Surveys.**

H. Roberts, *J. Darling*, A. Baker, & S. Kannappan. 2020, AAS Meeting 235, #207.30

**Cosmological and Extragalactic Science Cases for Incompatible Versions of the ngVLA.** *J. Darling*. 2019, Radio/Millimeter Astrophysical Frontiers in the Next Decade, Charlottesville, VA

**An Astrometric Approach to Gravitational Waves and Cosmology.** *J. Darling*. 2019, The Space Astrophysics Landscape for the 2020s and Beyond, Potomac, MD

**A Radio Search for Massive Black Holes in Dwarf Galaxies.** A. Reines, J. Condon, *J. Darling*, & J. Greene. 2019, AAS Meeting 233, #134.02

**ngVLA Key Science Goal 5 Understanding the Formation and Evolution of Black Holes in the Era of Multi-Messenger Astronomy.** T. J. W. Lazio, K. Alatalo, L. Blecha, et al. (53 coauthors). 2019, AAS Meeting 233, #361.25

**New Astrometric Limits on the Stochastic Gravitational Wave Background.** *J. Darling*, A. E. Truebenbach, & J. Paine. 2018, AAS Meeting 232, #324.07

**Secular Extragalactic Parallax and Geometric Distances with Gaia Proper Motions.** J. Paine & *J. Darling*. 2018, AAS Meeting 232, #319.01

**Real-Time Cosmology with Extragalactic Proper Motions: the Secular Aberration Drift and Evolution of Large-Scale Structure.** A. Truebenbach & *J. Darling*. 2018, AAS Meeting 231, #430.03

**A Catalog of Proper Motions to Dynamically Measure the Hubble Expansion and the Evolution of Large-Scale Structure.** A. E. Truebenbach & *J. Darling*. 2017, AAS Meeting 229, #246.01

**Circumnuclear Disks in Early-type Galaxies: 12CO(2-1) and Continuum Properties.** B. Boizelle, A. J. Barth, A. J. Baker, *J. Darling*, L. Ho, J. Walsh, & D. A. Buote. 2017, AAS Meeting 229, #114.06

**Measurement of the Black Hole Mass in NGC 1332 with ALMA CO Observations.** A. J. Barth, B. Boizelle, *J. Darling*, A. J. Baker, D. A. Buote, L. C. Ho, & J. Walsh. 2016, AAS Meeting 228, #103.05

**Intensity Mapping of Molecular Gas at High Redshift.** G. Bower, G. Keating, D. Marrone, D. DeBoer, T.-C. Chang, M.-T. Chen, H. Jiang, P. Koch, D. Kubo, C.-T. Li, K. Y. Lin, R. Srinivasan, & *J. Darling*. 2015, IAU General Assembly, Meeting #29, #2250511.

**The Hubble Expansion is Isotropic in the Epoch of Dark Energy.** *J. Darling*. 2015, AAS Meeting 225, #255.10

**A Method for Measuring the Transverse Velocity Vector and the Geometric Distance of the Andromeda Galaxy Using Water Masers.** N. Amiri & *J. Darling*. 2015, AAS Meeting 225, #446.01

**Identifying OH Imposters in the ALFALFA HI Survey.** K. Suess, *J. Darling*, M. P. Haynes, & R. Giovanelli. 2015, AAS Meeting 225, #143.25

**A Multi-Wavelength Study of Water Maser-Emitting Regions in the Andromeda Galaxy.**

- N. Amiri, *J. Darling*, & *B. Gerard*. 2014, AAS Meeting 223, #454.40
- Molecular Gas in the Andromeda Galaxy.** *B. Gerard*, *J. Darling*, & N. Amiri. 2014, AAS Meeting 223, #454.03
- Imaging the Spatial Density Within Starburst Galaxies M82 and Arp220.** N. S. Kern, J. G. Mangum, *J. Darling*, C. Henkel, & K. Menten. 2014, AAS Meeting 223, #252.02
- Real-Time Cosmology.** *J. Darling*. 2013, 25<sup>th</sup> Kavli Frontiers of Science Symposium, National Academy of Sciences, Irvine, CA
- Toward a Direct Measurement of the Cosmic Acceleration.** *J. Darling*. 2013, Thirty Meter Telescope Science Forum, Waikoloa, HI
- Molecular Gas in the Andromeda Galaxy.** *B. Gerard*, *J. Darling*, & Nikta Amiri. 2013, Bulletin of the American Physical Society, 58, 12, 4CF.G1.17
- Toward a Direct Measurement of the Cosmic Acceleration.** *J. Darling*. 2013, AAS Meeting 221, #341.06
- HI Emission in Nearby X-ray Detected Active Galaxies.** *E. George*, L. M. Winter, B. Zauderer, *J. Darling*, & M. Koss. 2013, AAS Meeting 221, #339.37
- Imaging the Spatial Density Within Starburst Galaxies.** R. Smullen, J. G. Mangum, *J. Darling*, C. Henkel, & K. Menten. 2013, AAS Meeting 221, #157.07
- Active Galaxy Host Properties from a New H I 21-cm Survey of the Swift BAT-detected AGN.** L. M. Winter, *E. R. George*, B. Zauderer, & *J. Darling*. 2013, AAS Meeting 221, #307.04
- Water Masers in the Andromeda Galaxy: The Path to Geometric Distance and Proper Motion.** *J. Darling*. 2012, “The Great Andromeda Galaxy” meeting, Princeton, NJ
- Water Masers in the Andromeda Galaxy: The First Step Toward Proper Motion.** *J. Darling*. 2012, AAS Meeting 219, #346.13
- Investigating the Black Hole - Dark Matter Halo Connection in a New Sample of Local Active Galactic Nuclei.** *J. Mirocha*, *J. Darling*, M. Haynes, & R. Giovanelli. 2012, AAS Meeting 219, #243.25
- Galaxy Motions with Radio Astrometry.** A. Brunthaler, M. Reid, K. Menten, G. Bower, *J. Darling*, H. Falcke, M. Garrett, C. Henkel, A. Loeb, L. Loinard, T. Oosterloo, E. Roediger, L. Sjouwerman, A. Tarchi, & J. van Gorkom. 2011, “Building on New Worlds, New Horizons: New Science from Sub-millimeter to Meter Wavelengths” meeting, Santa Fe, NM
- A Search for Intrinsic HI 21-cm Absorption Toward Compact Radio Sources.** *K. Grasha* & *J. Darling*. 2011, AAS Meeting 217, #345.02
- The Formaldehyde Deep Field: A Mass-Limited, Distance-Independent, Extinction-Free Census of Cosmic Star Formation.** *J. Darling* & *B. Zeiger*. 2011, AAS Meeting 217, #335.10
- Formaldehyde Densitometry of Dust Clumps: The Shapes and Densities of Massive Star Forming Regions.** *A. Ginsburg*, *C. Battersby*, *J. Darling*, & J. Bally. 2011, AAS Meeting 217, #258.03
- Physical Molecular Probes of Star-Forming Galaxies.** *J. Darling*. 2010, ‘Stormy Cosmos: The Evolving ISM from Spitzer to Herschel and Beyond” meeting, Pasadena, CA
- Frustrated by RFI: Present-Day Molecular Astrophysics at High Redshift.** *K. Willett* & *J. Darling*. 2010, “Robotic Science From the Moon” meeting, Boulder, CO

- The Search for Intrinsic and Intervening HI Absorption at High Redshift Toward Compact Radio Sources.** K. Grasha & J. Darling. 2010, “Robotic Science From the Moon” meeting, Boulder, CO
- The ALFALFA HI Absorption Survey.** E. Macdonald, J. Darling, & the ALFALFA Team. 2010, Royal Astronomical Society National Astronomy Meeting, Glasgow, UK
- Detection of Three Redshifted HI Absorption Systems.** T. Yan, J. Stocke, & J. Darling. 2010, AAS Meeting 215, #460.07
- Formaldehyde Absorption of the Cosmic Microwave Background: A Distance-Independent Tracer of Dense Molecular Gas.** B. Zeiger & J. Darling. 2010, AAS Meeting 215, #415.04
- Galactic Analog Water Masers in the Antennae Galaxies.** C. Brogan, K. Johnson, & J. Darling. 2010, AAS Meeting 215, #320.04
- Mid-Infrared Spectroscopy of Compact Symmetric Objects.** K. Willett, J. Stocke, E. Perlman, & J. Darling. 2009, “Reionization to Exoplanets: Spitzer’s Growing Legacy,” Pasadena, CA
- Formaldehyde Densitometry of Starburst Galaxies.** J. G. Mangum, J. Darling, B. R. Zeiger, K. M. Menten, & C. Henkel. 2009, IRAM 30m 30th Anniversary Meeting
- The ALFALFA HI Absorption Pilot Project.** E. Macdonald, J. Darling, & the ALFALFA Team. 2009, AAS Meeting 213, #482.09
- The Discovery of Water Masers in Nearby Star-Forming Galaxies.** J. Darling, C. Brogan, & K. Johnson. 2009, AAS Meeting 213, #445.01
- Observing High Redshift Starbursts With Formaldehyde.** B. Zeiger & J. Darling. 2008, “The EVLA Vision: Galaxies Through Cosmic Time” NRAO, Socorro, NM
- Mid-Infrared Spectroscopy of OH Megamasers.** K. Willett, J. Darling, L. Armus, V. Charmandaris, H. Spoon, & Y. Pihlström. 2007, AAS Meeting 211, #141.05
- A Dense Gas Trigger for OH Megamasers.** J. Darling. 2007, AAS Meeting 211, #141.04
- Formaldehyde Absorption Toward the Gravitational Lens B0218+357 at z=0.68.** J. Darling & T. Wiklind. 2005, AAS Meeting 207, #203.01
- Molecular Tori in AGN: A Search Using Excited States of OH.** C. M. V. Impellizzeri, A. L. Roy, C. Henkel, J. Darling, & J. A. Braatz. 2005, Astron. Nachr., 326, 544
- The Broad OH Megamaser Lines in Ultra Luminous Infrared Galaxies.** Y. M. Pihlström, J. E. Conway, & J. Darling. 2004, AAS Meeting 205, #26.09
- OH Maser Disks and Outflows in ULIRGs: VLBA Observations of two IRAS Galaxies.** Y. M. Pihlström, W. A. Baan, J. Darling, & H.-R. Klöckner. 2003, AAS Meeting 203, #146.02
- OH Megamasers in External Galaxies.** J. Darling. 2003, The Astrochemistry of External Galaxies, IAU 25, JD 21
- The Green Bank Telescope OH Megamaser Survey.** B. Kent, J. Braatz, & J. Darling. 2002, AAS Meeting 201, #52.16
- The Arecibo OH Megamaser Survey.** J. Darling. 2001, AAS Meeting 199, #35.05
- Observing OH Megamasers with the Upgraded Arecibo Telescope.** J. Darling & R. Giovanelli. 2001, AAS Meeting 198, #89.03
- OH Megamasers: Luminous Radio Beacons of Merging Galaxies.** J. Darling & R. Giovanelli. 2001,

AAS Meeting 198, #34.05

**A Survey of Lyman Break Galaxies Associated with Damped Lyman Alpha Systems at  $z \sim 3$ .**

J. Cooke, A. M. Wolfe, E. Gawiser, J. X. Prochaska, & *J. Darling*. AAS Meeting 198, #54.10 (2001)

**The Arecibo OH Megamaser Survey and the Galaxy Merger Rate.** *J. Darling*, and R. Giovanelli.

2000, AAS Meeting 196, #51.01

**Optical/Infrared Site Survey in the High Atacama Desert.** R. Giovanelli, *J. Darling*, M. Sarazin,

S. Eikenberry, B. Hoffman, M. Swain, J. Yu, P. M. Harvey, A. Otarola, and G. Valladares. AAS Meeting 193, #11.02 (1999)

**High-Redshift Quasars and Other Peculiar-Color Objects in DPOSS.** S. G. Djorgovski, S. C. Odewahn,

R. R. Gal, R. R. De Carvalho, A. Kelly, J. Kollmeier, E. Kartalov, *J. Darling*, and V. Desai. AAS 192, #55.22 (1998)

**Galaxy Companions of Quasars at  $z > 4$ : Formation of Protocluster Cores?.** S. G. Djorgovski, K.

R. Banas, S. C. Odewahn, R. R. Gal, M. A. Pahre, R. R. de Carvalho, V. Desai, & *J. Darling*. 1997, BAAS, 191, #95.07

**Discovery of 6 Bright Quasars at  $z > 4$  From Digitized POSS-II.** *J. Darling*, R. R. de Carvalho,

J. Kennefick, & S. G. Djorgovski. 1995, BAAS, 187, #84.17