

JEFFREY L. CARLIN

Large Synoptic Survey Telescope (LSST) Project Office
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EDUCATION

University of Virginia, Charlottesville, VA, USA
Ph.D., Astronomy, 2010; Advisor: Steven R. Majewski
“Kinematical and Chemical Probes of Milky Way Satellite Accretion”

University of Virginia, Charlottesville, VA, USA
M.S., Astronomy, 2004; Advisor: Craig Sarazin
“Chandra Observations of Diffuse Gas and Point Sources in the Elliptical Galaxy NGC 533”

San Francisco State University, San Francisco, CA, USA
B.S., Physics, 2002; Mathematics minor, Magna Cum Laude

EMPLOYMENT

Research Associate, Large Synoptic Survey Telescope (LSST) Project Office, Tucson, AZ, USA;
Jul. 2016 - present

Senior Research Associate, Haverford College, Department of Astronomy, Haverford, PA, USA;
Jan. 2016 - Jul. 2016

Adjunct Professor, Earlham College, Department of Physics and Astronomy, Richmond, IN, USA;
Aug. 2014 - Dec. 2015

Postdoctoral Research Associate, Rensselaer Polytechnic Institute, Department of Physics, Applied Physics, and Astronomy, Troy, NY, USA; Sep. 2010 - Jul. 2016

Adjunct Professor, Rensselaer Polytechnic Institute, Department of Physics, Applied Physics, and Astronomy, Troy, NY, USA; Aug. 2012 - Dec. 2012

TEACHING AND ADVISING

<i>2016 - present</i>	Mentoring research assistants, Steward Observatory/University of Arizona: Ragadeepika Pucha (graduate student), Madison Walder (undergraduate)
<i>2015 (Fall)</i>	Earlham College; PHYS 282: “Intro to Astrophysics”
<i>2015 (Spring)</i>	Earlham College; PHYS 105: “Physics of Music” (general education lecture course)
<i>2014 (Fall)</i>	Earlham College; PHYS 120/125: “General/Analytical Physics” (lab instructor)
<i>2012 (Fall)</i>	Rensselaer Polytechnic Institute; ASTR 2050: “Introductory Astronomy & Astrophysics” (course for Physics majors)
<i>2010 - 2016</i>	Mentored undergraduate research assistants, Rensselaer Polytechnic Institute (students include William Yam, Charles Martin, Jimmy DeLaunay, Daniel Gole, Katie Grabowski, Taylor Varilly, Ben Bowles, Jeff Chowaniec, and Liam Moynihan)
<i>2010 - 2016</i>	Advised Chinese graduate students and research assistants on research projects, including XU Yan, LI Jing, YANG Fan, and ZHANG Yueyang
<i>2012 (Summer)</i>	Advised summer Research Experience for Undergraduate students on research projects, Rensselaer Polytechnic Institute
<i>2004 - 2005</i>	Tutored student-athletes in astronomy classes, University of Virginia
<i>2002 - 2004</i>	Head Teaching Assistant, “Intro to Astronomical Observation,” Univ. of Virginia
<i>2004</i>	Teaching Assistant, “Intro to Stars, Galaxies, and the Universe,” Univ. of Virginia
<i>2002, 2004</i>	Teaching Assistant, “Archaeo-Astronomy,” Univ. of Virginia

PROFESSIONAL SERVICE

Referee: Astrophysical Journal, Astrophysical Journal Letters, Astronomical Journal, Monthly Notices of the Royal Astronomical Society, Galaxies.

Proposal reviewer:

- National Optical Astronomy Observatory Time Allocation Committee (Galactic panel), 2019A-2021A.
- Gemini Large and Long Programs observing proposals.
- Hubble Space Telescope Mid-cycle GO observing proposals (2 times).
- NASA Astrophysics Data Analysis Program (ADAP) research proposals.
- FONDECYT (Chile) research proposals (3 times).
- TAP (Telescope Access Program; China) observing proposals (2 times).

Member, LSST “Stars, Milky Way, and the Local Volume” science collaboration.

Member of Scientific Organizing Committee, “Near-Field Cosmology with the Dark Energy Survey’s DR1 and Beyond,” Univ. of Chicago, June 2018.

Invited participant, *Searching for Dwarf Companions of the Milky Way and Beyond in the LSST Era*, Tucson, AZ, Oct. 2017. Contributed to the resulting white paper.

Volunteer judge for the Chambliss Astronomy Achievement Student Awards (2013-2017), Abstract Sorter (2014-2016) for the January American Astronomical Society meetings. Session chair at AAS meetings, Jan. 2014, 2015, and 2016.

Represented RPI as an American Astronomical Society “AAS Agent,” 2013-2014.

Participated in *Highly Multiplexed Spectroscopy with BigBOSS on the Mayall Telescope: An NOAO Community Workshop*, Tucson, AZ, Sep. 2011. Contributed to the BigBOSS white paper submitted to the NSF Portfolio Review Committee.

Participated in *Yale/WIYN One Degree Imager Survey Workshop*, New Haven, CT, Jul. 2005.

OUTREACH

Space Drafts/Astronomy on Tap public lecture, “The eating habits of the Milky Way and other galaxies” April 11, 2018; Tucson, AZ.

Participated in a [reddit.com](#) “Ask Me Anything (AMA)” as part of the MilkyWay@Home collaboration in Nov. 2015, answering public questions about astronomy.

RPI Summer Teaching Institute: Planetary Science and Astronomy for the Next Generation of Science Standards, Jul. 2012, 2013, and 2014; invited lecture/training.

Designed and wrote content for LAMOST-PLUS collaboration website (<http://lamost.us/league/>).

Assisted at twice-yearly public open nights, Fan Mountain Observatory, and annual events at McCormick Observatory (Virginia), 2002-2009.

AWARDS, GRANTS, & FELLOWSHIPS

National Science Foundation Astronomy & Astrophysics Research Grant AST-1816196; “Collaborative Research: Testing the Lambda Cold Dark Matter Paradigm with Dwarf Satellites of Low-mass Galaxies” (\$56,740; Co-PI).

Hubble Space Telescope Cycle 25; “Testing Galaxy Evolution in Unexplored Environments: the First Faint Dwarf Satellites of Local Volume LMC Analogs” (4 orbits, \$16,471).

American Astronomical Society International Travel Grant (airfare to attend “Stellar Halos Across the Cosmos” meeting in Heidelberg, Germany; \$1,592).

Chinese Academy of Sciences (CAS) President’s International Fellowship for Visiting Scientists; funded 2 months salary and expenses for May-Jul. 2015 visit to China (~\$7,700).

National Science Foundation grant AST-1409421, “Collaborative Research: Getting the Most from LAMOST,” (\$80,481; Co-I – funded one additional year of my postdoc position).

Univ. of Virginia Huskey Graduate Research Exhibition, 2nd Prize, Paper Presentation, March 2009 (\$200).

Virginia Space Grant Consortium, Aerospace Graduate Research Fellowship, 2005-2008 (\$5,000/yr.).

National Science Foundation Research Experience for Undergraduates (REU), La Serena, Chile, 2002 (Advisor: R. Chris Smith).

Meeting travel support:

- “2nd LAMOST-Kepler Workshop: LAMOST in the era of large spectroscopic surveys,” Brussels, Belgium, Aug. 2017
- “reSolving Galaxies in the Era of Extremely Large Telescopes,” Monterey, CA, Oct. 2015
- “Stellar Populations Across Cosmic Time,” Paris, France, Jun. 2012
- “Galactic Archaeology: Near-Field Cosmology and the Formation of the Milky Way,” Shuzenji, Japan, Nov. 2011
- “A Universe of Dwarf Galaxies,” Lyon, France, Jun. 2010
- “Yale/WIYN One Degree Imager Survey Workshop,” New Haven, CT, Sep. 2009
- “Extreme Star Formation in Dwarf Galaxies,” Ann Arbor, MI, Jul. 2009
- “A Giant Step: from Milli- to Micro-arcsecond Astrometry, IAU Symposium 248,” Shanghai, China: NSF and IAU travel grants, Oct. 2007
- “The Origin of the Galaxy and Local Group, 37th Saas-Fee Advanced Course of the Swiss Society for Astrophysics and Astronomy,” Mürren, Switzerland, Mar. 2007
- Univ. of Virginia Huskey Travel Award (support for meeting attendance), 2007, 2008, 2009
- “Yale Astrometry Workshop,” New Haven, CT, Jul. 2005
- “Michelson Summer Workshop,” Pasadena, CA, Jul. 2005

INVITED TALKS

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| Jan. 2019 | “Science Highlights from GRACES,” at Resurgence of High Resolution Spectroscopy at Gemini splinter session, 233rd American Astronomical Society meeting, Seattle, WA; invited talk |
| Jan. 2018 | “Chemical abundances of Sagittarius tidal debris via Gemini/GRACES spectra,” at Gemini Visiting Instruments: New Science Results and Capabilities session, 231st American Astronomical Society meeting, Washington, DC; invited talk |
| Aug. 2017 | “The merging history of the Milky Way as seen by LAMOST,” at 2nd LAMOST-Kepler Workshop: LAMOST in the era of large spectroscopic surveys, Brussels, Belgium; invited talk |
| Oct. 2016 | “Near-field cosmology with the Magellanic Analog Dwarf Companions And Stellar Halos (MAD-CASH) survey,” Steward Observatory, Tucson, AZ; Galaxy Group talk |
| Apr. 2016 | “Characterizing the SHARDS of Disrupted Milky Way Satellites with LAMOST,” National Optical Astronomical Observatories, Tucson, AZ; Scientific Lunch Talk |
| Mar. 2016 | “Pre-cursor LSST science with Subaru/HSC:LMC-mass dwarf galaxies and their little friends as cosmological probes,” LSST, Tucson, AZ; Survey Science Group lunch |
| Sep. 2014 | “Complicating the canonical picture of the Milky Way disk,” University of Notre Dame, South Bend, IN; Astrophysics seminar |
| Mar. 2014 | “Stellar streams and substructures as probes of the Milky Way and its evolution,” Shanghai Observatory, Shanghai, China; seminar |
| Feb. 2014 | “Observing the tidal effects of satellite interactions on the Milky Way disk,” National Astronomical Observatories of China, Chinese Academy of Sciences, Beijing, China; seminar |
| Nov. 2013 | “Stellar streams and substructures as probes of the Milky Way and its evolution,” University of Rochester, Rochester, NY; colloquium |
| Oct. 2013 | “The galactic food chain: using stellar substructures to examine the diet of the Milky Way,” Colgate University, Hamilton, NY; seminar |
| May 2013 | “Kinematic lumps, bumps, and wiggles in the Galaxy from LEGUE,” National Astronomical Observatories of China, Chinese Academy of Sciences, Beijing, China; LAMOST-PLUS Workshop |

- Jan. 2013 “Stellar streams and substructures as probes of the Milky Way and its merging history,” Yale University, New Haven, CT; colloquium
- May 2012 “Disk substructure with LAMOST,” China West Normal University, Nanchong, China; LAMOST-PLUS Workshop
- May 2012 “Stellar streams and substructures as probes of the Milky Way and its merging history,” Shanghai Observatory, Shanghai, China; colloquium
- Mar. 2012 “The origin of the Virgo Stellar Substructure,” National Astronomical Observatories of China, Beijing, China; lunch talk
- Jan. 2012 “On Rings and Streams in the Galactic Anticenter,” at American Astronomical Society 219th Meeting, Austin, TX; SDSS-III session
- June 2011 “LAMOST commissioning data,” Rensselaer Polytechnic Institute, Troy, NY; LAMOST-PLUS Workshop
- May 2008 “Phase-space structure in the Sagittarius tidal tail,” Green Bank Observatory, Green Bank, WV; Science Lunch Talk
- Nov. 2007 “Phase-space structure in Kapteyn’s Selected Areas: first results for the Sagittarius trailing tidal tail,” National Optical Astronomical Observatories, Tucson, AZ; Scientific Lunch Talk

CONTRIBUTED TALKS AND POSTER PRESENTATIONS

[t]: contributed talk, [p]: poster

- July 2018 “Near-Field Cosmology with Resolved Stellar Populations Around Local Volume LMC Stellar-Mass Galaxies,” at Stellar Halos Across the Cosmos, Heidelberg, Germany; contributed talk; [t]
- June 2018 “Near-Field Cosmology with Resolved and Unresolved Stellar Populations Around Low-Mass Local Volume Galaxies,” at Near-Field Cosmology With the Dark Energy Survey’s DR1 and Beyond, Chicago, IL; contributed talk; [t]
- June 2018 “Recreating the chemical evolution of the Sagittarius dwarf spheroidal from its tidal debris,” at Stellar Abundances in Dwarf Galaxies Meeting-in-a-Meeting, 232nd American Astronomical Society meeting, Denver, CO; contributed talk; [t]
- June 2018 “Near-Field Cosmology with Resolved Stellar Populations Around Local Volume LMC Stellar-Mass Galaxies,” 232nd American Astronomical Society meeting, Denver, CO; contributed talk; [t]
- May 2018 “Probing the halo of the Milky Way beyond 100 kpc with RR Lyrae,” DECam Community Science Workshop 2018, Tucson, AZ; contributed talk; [t]
- Jan. 2018 “Pushing the boundaries: probing the halo of the Milky Way beyond 100 kpc with RR Lyrae Stars,” at American Astronomical Society 231st Meeting, Washington, DC; [p]
- Mar. 2017 “Magellanic Analog Dwarf Companions and Stellar Halos (MADCASH): near-field cosmology with resolved stellar populations around Local Volume LMC stellar-mass galaxies,” at On the Origin (and Evolution) of Baryonic Galaxy Halos, Galapagos Islands, Ecuador; [t]
- Jan. 2017 “The Magellanic Analog Dwarf Companions and Stellar Halos (MADCASH) survey: near-field cosmology with resolved stellar populations around Local Volume LMC stellar-mass galaxies,” at American Astronomical Society 229th Meeting, Grapevine, TX; [p]
- Aug. 2016 “Pre-cursor LSST science with Subaru/HSC: A faint dwarf galaxy companion to the low mass spiral galaxy NGC 2403 at 3.2 Mpc,” at LSST 2016 Project and Community Workshop, Tucson, AZ; [t]
- Jan. 2016 “Exploring the SHARDS of disrupted Milky Way satellites with LAMOST,” at American Astronomical Society 227th Meeting, Kissimmee, FL; [t]
- Oct. 2015 “Studying the SHARDS of disrupted Milky Way satellites with LAMOST,” at reSolving Galaxies in the Era of Extremely Large Telescopes, Monterey, CA; [p]
- Apr. 2015 “The LAMOST view of Galactic halo substructure,” at Satellites and Streams in Santiago, Santiago, Chile; [t]
- Jan. 2015 “Dissecting the Milky Way disk with LAMOST,” at American Astronomical Society 225th Meeting, Seattle, WA; [p]

- Feb. 2014 “Galactic archaeology with LAMOST,” at The Near-Field Deep-Field Connection, Irvine, CA; [p]
- Jan. 2014 “LAMOST observations of substructure in bulk velocities of Milky Way disk stars,” at American Astronomical Society 223rd Meeting, Washington, D.C.; [p]
- Jan. 2014 “Relating dark matter to tidal streams with MilkyWay@home,” at American Astronomical Society 223rd Meeting, Washington, D.C.; [t]
- Oct. 2013 “Asymmetric substructure in kinematics of nearby disk stars from the LAMOST Survey,” Astronomical Society of New York meeting, Schenectady, NY; [t]
- Aug. 2013 “Asymmetric substructure in kinematics of nearby disk stars from the LAMOST Survey,” at Structure and Dynamics of Disk Galaxies, Petit Jean Mountain, AR; [t]
- May 2013 “Kinematic lumps, bumps, and wiggles in the Galaxy from LEGUE,” at Setting the Scene for Gaia and LAMOST, Lijiang, China; [p]
- Jan. 2013 “Update on the LAMOST-PLUS collaboration,” at American Astronomical Society 221st Meeting, Long Beach, CA; [p]
- June 2012 “On the origin of the stellar substructure(s) in Virgo,” at Stellar Populations Across Cosmic Time, Paris, France; [p]
- Nov. 2011 “Kinematics of stars along the Sagittarius trailing tidal tail and constraints on the Milky Way mass distribution,” at Galactic Archaeology: Near-Field Cosmology and the Formation of the Milky Way, Shuzenji, Japan; [p]
- July 2011 Columbia University, New York, NY; Pizza Lunch [t]
- Jan. 2011 “Comparison of derived stellar parameters for LAMOST and SEGUE spectra,” at American Astronomical Society 217th Meeting, Seattle, WA; [p]
- Oct. 2010 “Kinematical and chemical probes of Milky Way satellite accretion,” Rensselaer Polytechnic Institute, Troy, NY; Astrophysics Seminar, [t]
- June 2010 “Kinematics and metallicities of an Anticenter Stream tributary in Kapteyn’s Selected Area 76,” at A Universe of Dwarf Galaxies, Lyon, France; [p]
- Jan. 2010 “Absolute proper motions of Sagittarius trailing tidal debris,” American Astronomical Society 215th Mtg., Washington, D.C.; dissertation talk
- July 2009 “Boötes III: a disrupted dwarf galaxy?” at Extreme Star Formation in Dwarf Galaxies, Ann Arbor, MI; [t]
- Mar. 2009 “Constraining Fundamental Milky Way Parameters With Stellar Kinematics of Sagittarius Tidal Debris,” Univ. of Virginia, Charlottesville, VA; Huskey Graduate Research Exhibition; [t]
- Oct. 2007 “Preliminary proper motion analysis of the Carina dwarf spheroidal,” at A Giant Step: from Milli- to Micro-arcsecond Astrometry, Shanghai, China; [p]
- July 2004 “Chandra observations of NGC 533,” at Galaxies Viewed With Chandra, Cambridge, MA; [p]
- Jan. 2003 “Characterization of the shock front and discovery of Balmer filaments in optical images of Vela Bullet C,” at American Astronomical Society 201st Meeting, Seattle, WA; [p]

PUBLICATIONS

As of November 2018: *h*-index: 26/20/9 (as co-author, 1st-3rd author, lead author).
82 total articles (65 in refereed journals), with 2452 citations.
ORCID: 0000-0002-3936-9628

EDITED VOLUME

Newberg, H. J. & **Carlin, J. L.**, eds., 2016, *Tidal Streams in the Local Group and Beyond: Observations and Implications*, Springer International Publishing, Astrophysics and Space Science Library, 420 (ISBN 978-3-319-19335-9)

REFEREED PUBLICATIONS AS LEAD AUTHOR

Carlin, J. L. & Sand, D. J. 2018, *Astrophysical Journal*, 865, 7 (*arXiv:1805.11624*); “Boötes III is a disrupting dwarf galaxy associated with the Styx stream”

Carlin, J. L., Sheffield, A. A., Cunha, K., & Smith, V. V. 2018, *Astrophysical Journal Letters*, 859, L10 (*arXiv:1805.04120*); “Chemical abundances of hydrostatic and explosive alpha-elements in Sagittarius stream stars”

Carlin, J. L., Sand, D. J., Muñoz, R. R., Spekkens, K., Willman, B., Crnojević, D., Forbes, D. A., Hargis, J., Kirby, E., Peter, A. H. G., Romanowsky, A. J., & Strader, J. 2017, *Astronomical Journal*, 154, 267 (*arXiv:1710.06444*); “Deep Subaru Hyper Suprime-Cam Observations of Milky Way Satellites Columba I and Triangulum II”

Carlin, J. L., Sand, D. J., Price, P., Willman, B., Karunakaran, A., Spekkens, K., Bell, E. F., Brodie, J. P., Crnojević, D., Forbes, D. A., Hargis, J., Kirby, E., Lupton, R., Peter, A. H. G., Romanowsky, A. J., & Strader, J. 2016, *Astrophysical Journal Letters*, 828, L5; “First Results From the MADCASH Survey: A Faint Dwarf Galaxy Companion to the Low Mass Spiral Galaxy NGC 2403 at 3.2 Mpc”

Carlin, J. L., Liu, C., Newberg, H. J., Beers, T. C., Deng, L., Guhathakurta, P., Cao, Z., Hou, Y., Wang, Y., Wu, Y., & Zhang, Y. 2016, *Astrophysical Journal*, 822, 16; “Characterizing the SHARDS of Disrupted Milky Way Satellites with LAMOST”

Carlin, J. L., Liu, C., Newberg, H. J., Beers, T. C., Chen, L., Deng, L., Guhathakurta, P., Hou, J., Hou, Y., Lépine, S., Li, G., Luo, A.-L., Smith, M. C., Wu, Y., Yang, M., Yanny, B., Zhang, H., & Zheng, Z. 2015, *Astronomical Journal*, 150, 4; “Estimation of Distances to Stars With Stellar Parameters From LAMOST”

Carlin, J. L., DeLaunay, J., Newberg, H. J., Deng, L.-C., Gole, D., Grabowski, K., Jin, G., Liu, C., Liu, X.-W., Luo, A.-L., Yuan, H.-B., Zhang, H.-T., Zhao, G., & Zhao, Y. 2013, *Astrophysical Journal Letters*, 777, L5; “Substructure in bulk velocities of Milky Way disk stars”

Carlin, J. L., Lépine, S., Newberg, H. J., Deng, L.-C., and 21 additional co-authors, 2012, *Research in Astronomy and Astrophysics*, 12, 755; “An algorithm for preferential selection of spectroscopic targets in LEGUE”

Carlin, J. L., Yam, W., Casetti-Dinescu, D. I., Willett, B. A., Newberg, H. J., Majewski, S. R. & Girard, T. M. 2012, *Astrophysical Journal*, 753, 145; “The Origin of the Virgo Stellar Substructure”

Carlin, J. L., Majewski, S. R., Casetti-Dinescu, D. I., Law, D. R., Girard, T. M., & Patterson, R. J. 2012, *Astrophysical Journal*, 744, 25; “Kinematics and Chemistry of Stars Along the Sagittarius Trailing Tidal Tail and Constraints on the Milky Way Mass Distribution”

Carlin, J. L., Casetti-Dinescu, D. I., Grillmair, C. J., Majewski, S. R., & Girard, T. M. 2010, *Astrophysical Journal*, 725, 2290; “Kinematics in Kapteyn’s Selected Area 76: Orbital Motions Within the Highly Substructured Anticenter Stream”

Carlin, J. L., Grillmair, C. J., Muñoz, R. R., Nidever, D. L., & Majewski, S. R. 2009, *Astrophysical Journal Letters*, 702, 9; “Kinematics and Metallicities in the Boötes III Stellar Overdensity: A Disrupted Dwarf Galaxy?”

REFEREED PUBLICATIONS AS CO-AUTHOR

(* indicates student papers on which I was the lead senior author).

Hasselquist, S., **Carlin, J. L.**, Holtzman, J. A., Shetrone, M., Cunha, K., Smith, V., Hayes, C. R., Beaton, R. L., Allende-Prieto, C., Anguiano, B., García-Hernández, D. A., Lane, R. R., Majewski, S. R., Nidever, D. L., Sobeck, J., Wilson, J. C., & Zamora, O. 2018, *Astrophysical Journal*, *submitted*; “Identifying Sagittarius Stream Stars By Their APOGEE Chemical Abundance Signatures”

Patel, E., **Carlin, J. L.**, Tollerud, E. J., Collins, M. L. M., & Dooley, G. A. 2018, *Monthly Notices of the Royal Astronomical Society*, 480, 1883 (*arXiv:1807.05318*); “ Λ CDM Predictions for the Satellite Populations of M33”

Mutlu-Pakdil, B., Sand, D. J., **Carlin, J. L.**, Spekkens, K., Caldwell, N., Crnojević, D., Hughes, A. K., Willman, B., & Zaritsky, D. 2018, *Astrophysical Journal*, 863, 25 (*arXiv:1804.08627*); “A Deeper Look at the New Milky Way Satellites: Sagittarius II, Reticulum II, Phoenix II, and Tucana III”

Wang, H. F., López-Corredoira, M., **Carlin, J. L.** & Deng, L. C. 2018, *Monthly Notices of the Royal Astronomical Society*, 477, 2498 (*arXiv:1803.09387*); “3D Asymmetrical motions of the Galactic outer disk with LAMOST K giant stars”

Martin, C., Amy, P. M., Newberg, H. J., Shelton, S., **Carlin, J. L.**, Beers, T. C., Denissenkov, P., & Willett, B. A. 2018, *Monthly Notices of the Royal Astronomical Society*, 477, 2419; “An Orbit Fit to Likely Hermus Stream Stars”

Medina, G. E., Muñoz, R. R., Vivas, A. K., **Carlin, J. L.**, Förster, F., Martínez, J., Galbany, L., González-Gaitán, G., Hamuy, M., de Jaeger, T., Maureira, J. C., & San Martín, J. 2018, *Astrophysical Journal*, 855, 43 (*arXiv:1802.01581*); “Discovery of Distant RR Lyrae Stars in the Milky Way Using DECam”

Xu, Y., Liu, C., Xue, X.-X., Newberg, H. J., **Carlin, J. L.**, Xia, Q.-R., Deng, L.-C., Li, J., Zhang, Y., Hou, Y., Wang, Y., & Cao, Z. 2018, *Monthly Notices of the Royal Astronomical Society*, 473, 1244 (*arXiv:1706.08650*); “Mapping the Milky Way with LAMOST II: the stellar halo”

Garling, C., Willman, B., Sand, D. S., Hargis, J., Crnojević, D., Bechtol, K., **Carlin, J. L.**, Strader, J., Zou, H., Zhou, X., Nie, J., Zhang, T., Zhou, Z., & Peng, X. 2018, *Astrophysical Journal*, 852, 44 (*arXiv:1711.07469*); “Mapping the tidal destruction of the Hercules Dwarf: a wide-field DECam imaging search for RR Lyrae”

Abbott, B. P. et al.; (**Carlin, J. L.** one of 3682 co-authors) 2017, *Astrophysical Journal Letters*, 848, L12; “Multi-messenger Observations of a Binary Neutron Star Merger”

Cowperthwaite, P. S. et al.; (**Carlin, J. L.** 46th of 143 co-authors) 2017, *Astrophysical Journal Letters*, 848, L17; “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”

Soares-Santos, M. et al.; (**Carlin, J. L.** 30th of 144 co-authors) 2017, *Astrophysical Journal Letters*, 848, L16; “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. I. Dark Energy Camera Discovery of the Optical Counterpart”

Pearl, A. N., Newberg, H. J., **Carlin, J. L.**, & Smith, R. F. 2017, *Astrophysical Journal*, 847, 123; “A map of the local velocity substructure in the Milky Way disk”

Medina, G. E., Muñoz, R. R., Vivas, A. K., Förster, F., **Carlin, J. L.**, Martinez, J., Galbany, L., González-

- Gaitán, G., Hamuy, M., de Jaeger, T., Maureira, J. C., & San Martín, J. 2017, *Astrophysical Journal Letters*, 845, L10; “Serendipitous discovery of RR Lyrae stars in the Leo V ultra-faint galaxy”
- Dooley, G. A., Peter, A. H. G., **Carlin, J. L.**, Frebel, A., Bechtol, K., & Willman, B., 2017, *Monthly Notices of the Royal Astronomical Society*, 472, 1060; “The predicted luminous satellite populations around SMC and LMC-mass galaxies - A missing satellite problem around the LMC?”
- Liu, C., Xu, Y., Wan, J.-C., Wang, H.-F., **Carlin, J. L.**, Deng, L., Newberg, H. J., Cao, Z., Hou, Y., Wang, Y., & Zhang, Y. 2017, *Research in Astronomy and Astrophysics*, 17, 96; “Mapping the Milky Way with LAMOST I: Method and overview”
- Bai, Z., Zhang, H., Yuan, H., **Carlin, J. L.**, Li, G., Lei, Y., Dong, Y., Yang, H., Zhao, Y., & Cao, Z. 2017, *Publications of the Astronomical Society of the Pacific*, 129, 024004; “Cosmic Ray Removal in Fiber Spectroscopic Image”
- Zhang, Y., Smith, M. C., & **Carlin, J. L.** 2016, *Astrophysical Journal*, 832, 10; “Red Runaways II: Low Mass Hills Stars in SDSS Stripe 82”
- Sohn, S. T., van der Marel, R. P., Kallivayalil, N., Majewski, S. R., Besla, G., **Carlin, J. L.**, Law, D. R., Siegel, M. H., & Anderson, J., 2016, *Astrophysical Journal*, 833, 235; “Hubble Space Telescope proper motions of individual stars in stellar streams. I. Identification and measurements for Orphan, Sagittarius, Lethe, and the new Parallel Stream”
- Li, J., Smith, M. C., Zhong, J., Hou, J., **Carlin, J. L.**, Newberg, H. J., Liu, C., Chen, L., Li, L., Shao, Z., Small, E., & Tian, H. 2016, *Astrophysical Journal*, 823, 59; “Selecting M-giants with infrared photometry: Distances, metallicities and the Sagittarius stream”
- Li, J., Liu, C., **Carlin, J. L.**, Zhong, J., Hou, J., Deng, L., Newberg, H. J., Zhang, Y., Hou, Y., & Wang, Y. 2016, *Research in Astronomy and Astrophysics*, 16, 8; “New tidal debris nearby the Sagittarius leading tail from the LAMOST DR2 M giant stars”
- de la Vega, A., Quillen, A. C., **Carlin, J. L.**, Chakrabarti, S., & D’Onghia, E. 2015, *Monthly Notices of the Royal Astronomical Society*, 454, 933; “Phase Wrapping of Epicyclic Perturbations in the Wobbly Galaxy”
- Lee, Y. S., Beers, T. C., **Carlin, J. L.**, Newberg, H. J., Luo, A.-L., Zhang, H., Zhang, Y., Hou, Y., Zhang, W., Li, G., Yang, M., & Wu, Y. 2015, *Astronomical Journal*, 150, 187; “Application of the SEGUE Stellar Parameter Pipeline to LAMOST Stellar Spectra”
- Tian, H.-J., Liu, C., **Carlin, J. L.**, Zhao, Y.-H., Chen, X.-L., Wu, Y., Li, Guangwei, Hou, Y.-H., & Zhang, Y. 2015, *Astrophysical Journal*, 809, 145; “The Stellar Kinematics in the Solar Neighborhood from LAMOST Data”
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