Mailing Address

Department of Astronomy and Astrophysics

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Toronto, ON M5S 3H4

Canada

Research Interests

Milky Way Formation and Evolution, Stellar Astrophysics, Galaxies, Stellar Streams, Metal-poor Stars, Stellar Populations.

Employment History

Assistant Professor Jul 2021 -

Department of Astronomy & Astrophysics, University of Toronto

50 St. George Street, Toronto, ON M5S 3H4, Canada

Carnegie Postdoctoral Fellow Jul 2019 – Jul 2021

Carnegie Observatories, Carnegie Institution for Science

813 Santa Barbara St, Pasadena, CA 91101, USA

Leon M. Lederman Postdoctral Fellow Aug 2016 - Jul 2019

Fermi National Accelerator Laboratory Kirk and, Pine St, Batavia, IL 60510, USA

Graduate Research Assistant Sept 2011 - Aug 2016

Department of Physics & Astronomy, Texas A&M University

578 University Dr, College Station, TX 77843, USA

Graduate Teaching Assistant Sept 2010 – Aug 2011

Department of Physics & Astronomy, Texas A&M University

578 University Dr, College Station, TX 77843, USA

Education

Doctor of Philosophy, Astrophysics, Texas A&M University, Texas, USA Sep 2010 - Aug 2016

Master of Science, Luleå University of Technology, Kiruna, Sweden Sep 2008 - Jul 2010

Bachelor of Science, Fudan University, Shanghai, China Sep 2004 - Jul 2008

PhD Thesis: Exploring Milky Way Halo Substructures with Large-area Sky Surveys

Abstract: Over the last two decades, our understanding of the Milky Way has been improved thanks to large data sets arising from large-area digital sky surveys. The Milky Way is now known to be inhabited by a variety of spatial and kinematic stellar substructures, including stellar streams and stellar clouds, all of which are predicted by hierarchical Lambda Cold Dark Matter models of galaxy formation. In this dissertation, I present the discovery and analysis of these new structure and study their implications on the formation and evolution history of our Milky Way.

Thesis Advisors: Prof. Darren L. DePoy, Prof. Jennifer L. Marshall (Texas A&M University)

Grant

Canada CFI/JELF Grant (PI, \$350,000 CAD) Univ. of Toronto Data Science Institute Catalyst Grant (Co-PI, \$100,000 CAD) Univ. Toronto Connaught Grant (PI, \$20,000 CAD) Canada NSERC Discovery Grant (PI, \$155,000 CAD) NASA Hubble Fellowship Program (PI, \$340,000 USD)	2023 - 2027 2023 - 2025 2022 - 2024 2022 - 2027 2019 - 2021
Honors & Awards	
Scialog Fellow, Research Corporation for Science Advancement, Tucson, AZ Dorothy Shoichet Women Faculty in Science Award of Excellence, U Toronto Rising Stars in Physics, Princeton University NASA Hubble Fellowship Carnegie-Princeton Fellowship KICP Associate Fellow, University of Chicago Leon M. Lederman Fellow in Experiment Physics Mitchell Institute Graduate Fellowship, Texas A&M University Dr. Chia-Lai Wang Memorial Scholarship, Texas A&M University Erasmus Mundus Scholarship	2024 2023 2022 2019 - 2021 2019 - 2021 2016 - 2019 2016 - 2019 2015 - 2016 2013 - 2014 2008 - 2010
Student Mentorship	
Nasser Mohammed (Graduate at UToronto) Emma Jarvis (Graduate at UToronto) Petra Awad (Graduate at U of Groningen) Grace Yu (Former undergrad at UToronto, now graduate at Bekerley) Mairead Heiger (Graduate at UToronto) Jordan Bruce (Former undergrad at UToronto; now graduate at Indiana) Jessica Patel (Former undergrad at UToronto) Charlie Hughes (Former undergrad at UToronto) William Cerny (Former undergrad at UChicago; now graduate at Yale) Peter Ferguson (Former graduate at Texas A&M now postdoc at UW Madison) Sydney Jenkins (Former undergrad at UChicago; now graduate at MIT) Nora Shipp (Former graduate at UChicago; now postdoc at MIT) Nicholas Mondrik (Former undergrad at Texas A&M graduate at Harvard)	2024 - 2024 - 2023 - 2024 2022 - 2024 2022 - 2021 - 2023 2021 - 2023 2020 - 2023 2019 - 2021 2017 - 2021 2018 - 2019 2015 - 2016
Public Outreach	
Presenter, Star Talks, Astronomy & Space Exploration Association, U. of Toronto Instructor, Vision of Science Summer Intern Program Presenter, Astronomy on Tap Lecturer, Fermilab Lifelong Learning Institute (LLI) Program Lecturer, Fermilab Saturday Morning Physics for High School Students Coordinator, Fermilab Saturday Morning Physics for High School Students E/PO representative, Dark Energy Survey Coordinator, Science Olympiad Instructor, "Expanding Your Horizons" Workshop Organizer, Texas A&M Physics and Astronomy Festival Organizer, Texas A&M Star Parties	2024 2022 2018 - 2018 - 2019 2017 - 2019 2016 - 2019 2014 - 2016 2014 2012 2011 - 2014 2011 - 2013

Conferences, Seminars, Colloquia

32. Invited Review Talk, IAU Symposium 395 "Stellar populations in the Milky Way and beyond", Paraty, Brazil, Nov 2024

- 31. Invited Talk, Conference "Galphases24: Accretion in the Local Group", Strasbourg, France, Aug 2024
- 30. Colloquium, Astronomisches Rechen-Institut, Heidelberg University, Germany, Aug 2024
- 29. Invited Astroseminar Talk, Waterloo Centre for Astrophysics, University of Waterloo, ON, Mar 2024
- 28. Colloquium, Department of Astronomy and Physics, Saint Mary's University, Halifax, NS, Nov 2023
- 27. Colloquium, Department of Physics, Engineering Physics & Astronomy, Queen's University, Kingston, ON, Oct 2023
- 26. Invited Plenary Talk, DESI Collaboration Meeting, Durham University, Durham, UK, Jul 2023
- 25. Invited Seminar Talk, Durham University, UK, Jul 2023
- 24. Invited Seminar Talk, University of Surrey, UK, Jul 2023
- 23. Colloquium, Kapteyn Astronomical Institute, University of Groningen, the Netherlands, Jul 2023
- 22. Colloquium, Leiden Observatory, Leiden University, the Netherlands, Jul 2023
- 21. Invited Review Talk, Pollica Workshop "Self-Interacting Dark Matter: Models, Simulations and Signals", Pollica, Italy, Jun 2023
- 20. Colloquium, University of Toronto, Toronto, Canada, Sept 2022
- 19. (remote) Colloquium, Indiana University, Bloomington, IN, USA, Oct 19, 2021
- 18. (remote) Colloquium, National Research Council of Canada's Herzberg Astronomy and Astrophysics Research Centre, Victoria, BC, Sept 28, 2021
- 17. (remote) Invited Seminar Talk at N3AS (Link to Talk), May 11, 2021
- 16. (remote) Colloquium, the University of British Columbia, Vancouver, Canada, Apr 19, 2021
- 15. (remote) Invited Seminar Talk, the University of Kentucky, Lexington, KY, Feb 3, 2021
- 14. (remote) Invited Seminar Talk, UC Davis, Davis, CA, Jan 28, 2021
- 13. (remote) Invited Seminar Talk, University College London, London, England, Nov 2 2020
- 12. (remote) Invited Seminar Talk, McGill Space Institute, Montreal, Canada, Oct 13 2020
- 11. iPoster, 235th AAS Meeting, Honolulu, Hawaii, Jan 2020
- 10. Colloquium, UC Santa Cruz, Santa Cruz, CA, Nov 2019
- 9. Colloquium, University of Toronto, Toronto, Canada, Oct 2019
- 8. Invited Talk, LSST Dark Matter Workshop, University of Chicago, Chicago, IL, Aug 2019
- 7. Invited Talk, IAU Symposium 353 "Galactic Dynamics in the Era of Large Surveys", Shanghai, China, Jul 2019
- 6. Invited Talk, Conference "Science in our own Backyard: Exploring the Galaxy and the Local Group with WFIRST", Caltech, Pasadena, CA, Jun 2019
- 5. Invited Talk, KITP Workshop "In the Balance: Stasis and Disequilibrium in the Milky Way", Santa Barbara, CA, Apr 2019
- 4. Invited Seminar Talk, Carnegie Mellon University, PA, Mar 2019
- 3. Participant, Aspen Workshop "Dynamics of the Milky Way System in the Era of Gaia", Aspen, CO, Sep 2018
- 2. Invited Long-term Participant, KITP Workshop, The Small-Scale Structure of Cold(?) Dark Matter, Santa Babara, CA, May 2018
- 1. Invited Plenary Talk, SnowPAC, Big Questions, Big Surveys, Big Data: Astronomy & Cosmology in the 2020s, Snowbird, UT, May 2018

Selected Refereed Publications

Summary: 200+ publications, including 10 1st author, 27 2nd/3rd author

h-index: 85 citations: 32000

For a complete publication list, please refer to:

https://ui.adsabs.harvard.edu/public-libraries/UGFGnC9bTu-vBkgMrqObgg

or

https://scholar.google.com/citations?user=JTGDv7MAAAAJ&hl=en

Papers led by students under my supervision are highlighted with underlines.

- 88. Awad, P., Li, T. S., Erkal, D. et al., "S5: New insights from deep spectroscopic observations of the tidal tails of the globular clusters NGC 1261 and NGC 1904", 2024, A&A, in press.
- 87. Simon, J. D., **Li, T. S.** et al. "Eridanus III and DELVE 1: Carbon-rich Primordial Star Clusters or the Smallest Dwarf Galaxies?", 2024, ApJ, in press, arXiv:2410.08276
- 86. Danieli, S., Kado-Fong, E., Huang, S., Luo, Y., **Li, T. S.** et al. "Merian: A Wide-Field Imaging Survey of Dwarf Galaxies at z 0.06-0.10", submitted to ApJ, arXiv:2410.01884
- 85. Byström, A., Koposov, S. E., Lilleengen, Li, T. S. et al. "Exploring the interaction between the MW and LMC with a large sample of blue horizontal branch stars from the DESI survey", submitted to MNRAS, arXiv:2410.09149
- 84. Hilmi, T., Erkal, D., Koposov, S. E., **Li, T. S.** et al. "Inferring dark matter subhalo properties from simulated subhalo-stream encounters", 2024, submitted to MNRAS, arXiv:2404.02953
- 83. Yu, F., Li, T. S., Speagle, J. S. 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, 81Y
- 82. Valluri, M., Fagrelius, P., Koposov, S. E., **Li, T. S.** et al. "GD-1 Stellar Stream and Cocoon in the DESI Early Data Release", submitted to ApJ, arXiv:2407.06336
- 81. Koposov, S. E., Allende P., C., Cooper, A. P., Li, T. S. et al. "DESI Early Data Release Milky Way Survey value-added catalogue", 2024, MNRAS, 533, 1012
- 80. Hansen, T. T., Simon, J. D., **Li, T. S.** et al. "Chemical Diversity on Small Scales: Abundance Analysis of the Tucana V Ultrafaint Dwarf Galaxy", 2024ApJ, 968, 21H.
- 79. Chiti, A., Mardini, M., Limberg, G. et al. (including **Li, T. S.**) "Enrichment by Extragalactic First Stars in the Large Magellanic Cloud", 2024, NatAs, 8, 637C.
- 78. Usman, S. A., Ji, A. P., **Li, T. S.**, "Multiple Populations and a CH Star Found in the 300S Globular Cluster Stellar Stream", 2024, MNRAS, 529, 2413U.
- 77. 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, 234H.
- 76. Smith, S. E. T., Cerny, W., Hayes, C. R. et al., (including **Li, T. S.**) "The Discovery of the Faintest Known Milky Way Satellite Using UNIONS", 2024, ApJ, 961, 92S
- 75. Pace, A. B., Koposov, S. E., Walker, M. G. et al. (including **Li, T. S.**) "The Kinematics, Metallicities, and Orbits of Six Recently Discovered Galactic Star Clusters with Magellan/M2FS Spectroscopy", 2023, MNRAS, 526, 1075P

74. Kent, S., Neilsen, E., Honscheid, K. et al. (including **Li, T. S.**) "Astrometric Calibration and Performance of the Dark Energy Spectroscopic Instrument Focal Plane", 2023, AJ, 166, 177K

- 73. 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, ApJ, 953L, 21C
- 72. Cerny, W., Martínez-Vázquez, C. E., Drlica-Wagner, A., (including **Li, T. S.**) "Six More Ultra-Faint Milky Way Companions Discovered in the DECam Local Volume Exploration Survey", 2023, ApJ, 953, 1C
- 71. Koposov, S. E., Erkal, D., **Li, T. S.** et al. "S5: Probing the Milky Way and Magellanic Clouds potentials with the 6D map of the Orphan-Chenab stream", 2023, MNRAS, 521, 4936
- 70. Shipp, N., Panithanpaisal, N., Necib, L., (including **Li, T. S.**) "Streams on FIRE: Populations of Detectable Stellar Streams in the Milky Way and FIRE", 2023, ApJ, 949, 44S
- 69. Bruce, J., Li, T. S. Pace, A. B. et al. "Spectroscopic analysis of Milky Way outer halo satellites: Aquarius II and Bootes II", 2023, ApJ, 950, 167B
- 68. **Li, T. S.**, Ji, A. P., Pace, A. B. et al. "S⁵: The Orbital and Chemical Properties of One Dozen Stellar Streams", 2022, ApJ, 928, 30
- 67. Vivas, A. K., Martinez-Vazquez, C. E., Walker, A. R., Belokurov, V., Li, T. S. et al. "Variable Stars in the Giant Satellite Galaxy Antlia 2", 2022, ApJ, 926, 78
- 66. Tavangar, K., Ferguson, P., Shipp, N., (including **Li, T. S.**) "From the Fire: A Deeper Look at the Phoenix Stream", 2022, ApJ, 925, 118
- 65. Ferguson, P. S., Shipp, N., Drlica-Wagner, A., Li, T. S. et al. "DELVE-ing into the Jet: A Thin Stellar Stream on a Retrograde Orbit at 30 kpc", 2022, AJ, 163, 18
- 64. Mau, S., Nadler, E. O., Wechsler, R. H., (including **Li, T. S.**) "Milky Way Satellite Census. IV. Constraints on Decaying Dark Matter from Observations of Milky Way Satellite Galaxies", submitted, arXiv:2201,11740
- 63. Ji, A. P., Koposov, S. E., **Li, T. S.**, et al. "Kinematics of Antlia 2 and Crater 2 from the Southern Stellar Stream Spectroscopic Survey (*S*⁵)", 2021, ApJ, 921, 32
- 62. Shipp, N., Erkal, D., Drlica-Wagner, A., **Li, T. S.**, et al. "Measuring the Mass of the Large Magellanic Cloud with Stellar Streams Observed by S^5 ", 2021, ApJ, 923, 149
- 61. Casey, A, R., Ji, A. P., Hansen, T. T., **Li, T. S.**, et al. "Signature of a Massive Rotating Metal-poor Star Imprinted in the Phoenix Stellar Stream", 2021, ApJ, 921, 67
- 60. Jenkins, S., **Li, T. S.**, Pace, A. B., et al. "VLT Spectroscopy of Ultra-Faint Dwarf Galaxies. 1. Boötes I, Leo IV, Leo V", 2021, ApJ, 920, 92J
- 59. Drlica-Wagner, A., Carlin, J. L., Nidever, D. L., et al. (including **Li, T. S.**) "The DECam Local Volume Exploration Survey: Overview and First Data Release", 2021, ApJS, 256, 2
- 58. Abbott, T. M. C., Adamów, M., Aguena, M. et al. (including **Li, T. S.**) "The Dark Energy Survey Data Release 2", 2021, ApJS, 255, 2, 20
- 57. Hansen, T. T., Ji, A. P., Da Costa, G. S., **Li, T. S.**, et al. "S⁵: The Destruction of a Bright Dwarf Galaxy as Revealed by the Chemistry of the Indus Stellar Stream", 2021, ApJ, 915, 103
- 56. Lu, W., Fuller, J., Raveh, Y., Perets, H. B., Li, T. S., et al. "The former companion of hyper-velocity star S5-HVS1", 2021, MNRAS, 503, 603

55. **Li, T. S.**, Koposov, S. E., Erkal, D., et al. "Broken into Pieces: ATLAS and Aliqa Uma as One Single Stream", 2021, ApJ, 911, 149

- 54. Nadler, E. O., Drlica-Wagner, A., Bechtol, K., et al. (including **Li, T. S.**) "Constraints on Dark Matter Properties from Observations of Milky Way Satellite Galaxies", 2021, PhRvL, 126, 1101
- 53. Cerny, W., Pace, A. B., Drlica-Wagner, A., et al. (including **Li, T. S.**) "Discovery of an Ultra-faint Stellar System near the Magellanic Clouds with the DECam Local Volume Exploration Survey", 2021, ApJ, 910, 18
- 52. Tanoglidis, D., Drlica-Wagner, A., Wei, K., Li, T. S., et al. "Shadows in the Dark: Low-surface-brightness Galaxies Discovered in the Dark Energy Survey", 2021, ApJS, 252, 18
- 51. Simon, J. D., Brown, T. M., Drlica-Wagner, Li, T. S., et al. "Eridanus II: A Fossil from Reionization with an Off-center Star Cluster", 2021, ApJ, 908, 18
- 50. Chang, J., Yuan, Z., Xue, X-X, Simion, I. T., Kang, X., **Li, T. S.**, et al. "Is NGC 5824 the Core of the Progenitor of the Cetus Stream?", 2020, ApJ, 905, 100
- 49. Ji, A. P., Li, T. S., Hansen, T. T., et al. "The Southern Stellar Stream Spectroscopic Survey (S₅): Chemical Abundances of Seven Stellar Streams", 2020, AJ, 160, 181
- 48. Hansen, T. T., Marshall, J. L., Simon, J. D., **Li, T. S.**, et al. "Chemical Analysis of the Ultrafaint Dwarf Galaxy Grus II. Signature of High-mass Stellar Nucleosynthesis", 2020, ApJ, 897, 183
- 47. Li, Z-Z; Qian, Y-Z; Han, J.; Li, T. S., et al. "Constraining the Milky Way Mass Profile with Phase-space Distribution of Satellite Galaxies", 2020, ApJ, 894, 10
- 46. Nadler, E. O., Wechsler, R. H., Bechtol, K. et al. (including **Li, T. S.**), "Milky Way Satellite Census. II. Galaxy-Halo Connection Constraints Including the Impact of the Large Magellanic Cloud", 2020, ApJ, 893, 48
- 45. Drlica-Wagner, A., Bechtol, K., Mau, S., McNanna, M., Nadler, E. O., Pace, A. B., **Li, T. S.** et al., "Milky Way Satellite Census. I. The Observational Selection Function for Milky Way Satellites in DES Y₃ and Pan-STARRS DR1", 2020, ApJ, 893, 47
- 44. Allende Prieto, C., Cooper, A. P., Dey, A., Gansicke, B. T., Koposov, S. E., **Li, T. S.**, et al. "Preliminary Target Selection for the DESI Milky Way Survey (MWS)", 2020, Research Notes of the AAS, 4, 10
- 43. Simon, J. D., **Li, T. S.**, Erkal, D., et al. "Birds of a Feather? Magellan/IMACS Spectroscopy of the Ultra-faint Satellites Grus II, Tucana IV, and Tucana V", 2020, ApJ, 892, 137
- 42. Wan, Z., Lewis, G. F., Li, T. S., et al. "The tidal remnant of an unusually metal-poor globular cluster", 2020, Nature, 583, 768
- 41. Koposov, S. E., Boubert, D., **Li, T. S.**, et al. "Discovery of a nearby 1700 km/s star ejected from the Milky Way by Sgr A*", 2020, MNRAS, 491, 2465
- 40. Ji, A. P., Li, T. S., Simon, J. D., et al. "Detailed Abundances in the Ultra-faint Magellanic Satellites Carina II and III", 2020, ApJ, 889, 27J
- 39. **Li, T. S.**, Koposov, S. E., Zucker, D. B., et al. "The Southern Stellar Stream Spectroscopic Survey (*S*⁵): Overview, Target Selection, Data Reduction, Validation, and Early Science", 2019, MNRAS, 490, 3508
- 38. Shipp, N., Li, T. S., Pace, A. B., et al. "Proper Motions of Stellar Streams Discovered in the Dark Energy Survey", 2019, ApJ, 885, 3

37. Torrealba, G., Belokurov, V., Koposov, S. E., Li, T. S., et al. "The hidden giant: discovery of an enormous Galactic dwarf satellite in Gaia DR2", 2019, MNRAS, 488, 2743

- 36. Erkal, D., Belokurov, V., Laporte, C. F. P., Koposov, S. E., **Li, T. S.**, et al. "The total mass of the Large Magellanic Cloud from its perturbation on the Orphan stream", 2019, MNRAS, 487, 2685
- 35. Koposov, S. E., Belokurov, V., **Li, T. S.**, et al. "Piercing the Milky Way: an all-sky view of the Orphan Stream", 2019, MNRAS, 485, 4726
- 34. Wang, M. Y., de Boer, T., Pieres, A., Li, T. S., et al. "The Morphology and Structure of Stellar Populations in the Fornax Dwarf Spheroidal Galaxy from Dark Energy Survey Data", 2019, ApJ, 881, 118
- 33. Pace, A. B. & Li, T. S., "Proper motions of Milky Way Ultra-Faint satellites with *Gaia* DR2 × DES DR1", 2019, ApJ, 875, 77
- 32. Dey, Arjun et al. (including Li, T. S.), "Overview of the DESI Legacy Imaging Surveys", 2019, AJ, 157, 168
- 31. Wang, M. Y., Koposov, S., Drlica-Wagner, A., Pieres, A., Li, T. S., "Rediscovery of the Sixth Star Cluster in the Fornax Dwarf Spheroidal Galaxy", 2019, ApJ, 875, 13
- 30. Abbott, B. P., et al. (including Li, T. S.), "The Dark Energy Survey: Data Release 1", 2018, ApJS, 239, 18
- 29. Erkal, D., Li, T. S., Koposov, S. E., Belokurov, V., et al., "Modelling the Tucana III stream a close passage with the LMC", 2018, MNRAS, 481, 3148.
- 28. **Li, T. S.**, Simon, J. D., Kuehn, K., et al., "The First Tidally Disrupted Ultra-Faint Dwarf Galaxy? Spectroscopic Analysis of the Tucana III Stream", 2018, ApJ, 866, 22.
- 27. Li, T. S., Simon, J. D., Pace, A. B., et al. "Ships Passing in the Night: Spectroscopic Analysis of Two Ultra-faint Satellites in the Constellation Carina", 2018, ApJ, 857, 145.
- 26. Shipp, N., Drlica-Wagner, A., Balbinot, E., Ferguson, P., Erkal, D., Li, T. S., et al., "Stellar Streams Discovered in the Dark Energy Survey", 2018, ApJ, 862, 114.
- 25. Bernstein, G. M., Abbott, T. M. C., Armstrong, R., Burke, D. L., Diehl, H. T., Gruendl, R. A., Johnson, M. D., Li, T. S., et al., "Photometric Characterization of the Dark Energy Camera", 2018, PASP, 130, 4501.
- 24. Bergemann, M., Sesar, B., Cohen, J., Serenelli, A. M., Sheffield, A. A., Li, T. S. et al., "Witnessing Galactic eviction disc stars at extreme locations around our Galaxy", 2018, Nature, 555, 334.
- 23. Nagasawa, D. Q., Marshall, J. L., **Li, T. S.** et al. "Chemical Abundance Analysis of Three *α*-Poor, Metal-Poor Stars in the Ultra-Faint Dwarf Galaxy Horologium I", 2018, ApJ, 852, 99.
- 22. Torrealba, G. et al. (including **Li, T. S.**), "Discovery of two neighbouring satellites in the Carina constellation with MagLiteS", 2018, MNRAS, 475, 5085
- 21. Drlica-Wagner, A., et al. (including **Li, T. S.**), "Dark Energy Survey Year 1 Results: Photometric Data Set for Cosmology", 2018, ApJS, 235, 33.
- 20. Abbott, B. P., et al. (including **Li, T. S.**), "A gravitational-wave standard siren measurement of the Hubble constant", 2017, Nature, 551, 85.
- 19. Abbott, B. P., et al. (including Li, T. S.), "Multi-messenger Observations of a Binary Neutron Star Merger", 2017, ApJ, 848, L12.

18. Cowperthwaite, P. S., et al. (including **Li, T. S.**), "The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. II. UV, Optical, and Near-infrared Light Curves and Comparison to Kilonova Models", 2017, ApJ, 848, L17.

- 17. Soares-Santos, M., et al. (including **Li, T. S.**), "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.
- 16. Johnston, K. V., Price-Whelan, A. M., Bergemann, M., Laporte, C., Li, T. S. et al., "Disk Heating, Galactoseismology, and the Formation of Stellar Halos", 2017, Galax, 5, 44.
- 15. **Li, T. S.**, Sheffield, A. A., Johnston, K. V., Marshall, J. L., Majewski, S. R. et al., "Exploring Halo Substructure with Giant Stars", 2017, ApJ, 844, 74.
- 14. Burke, D., Rykoff, E., et al. (including **Li, T. S.**), Forward Global Photometric Calibration of the Dark Energy Survey, 2018, AJ, 155, 41.
- 13. Li, T. S., Simon, J. D., Drlica-Wagner, A., Bechtol, K., et al. "Farthest Neighbor: The Distant Milky Way Satellite Eridanus II", 2017, ApJ, 838, 8
- 12. Simon, J. D., **Li, T. S.**, Drlica-Wagner, A., Bechtol, K., et al. "Nearest Neighbor: The Low-mass Milky Way Satellite Tucana III", 2017, ApJ, 838, 44
- 11. Hansen, T. T., Simon, J. D., Marshall, J. L., **Li, T. S.**, et al. "An r-process Enhanced Star in the Dwarf Galaxy Tucana III", 2017, ApJ, 838, 11
- 10. **Li, T. S.**, DePoy, D. L., Marshall, J. L., Tucker, D. L., Bernstein, G. M., et al. "Assessment of Systematic Chromatic Errors that Impact Sub-1% Photometric Precision in Large-Area Sky Surveys", 2016, AJ, 151, 157
- 9. **Li, T. S.**, Balbinot, E., Mondrik, N., et al. "Discovery of a Stellar Overdensity in Eridanus-Phoenix in the Dark Energy Survey", 2016, ApJ, 817, 135
- 8. Balbinot, E., Yanny, B., Li, T. S., et al. "The Phoenix stream: a cold stream in the Southern hemisphere", 2016, ApJ, 820, 58.
- 7. Melendez, J., Placco, V. M., Tucci-Maia, M., Ramirez, I., **Li, T. S.**, "2MASS J18082002-5104378: The Brightest (V=11.9) Ultra Metal-Poor Star", 2016, A&A, 585, 5
- 6. Simon, J. D., Drlica-Wagner, A., **Li, T. S.**, et al. "Stellar Kinematics and Metallicities in the Ultra-faint Dwarf Galaxy Reticulum II", 2015, ApJ, 808, 95
- 5. Drlica-Wagner, A., et al. (including **Li, T. S.**), "Eight Ultra-faint Galaxy Candidates Discovered in Year Two of the Dark Energy Survey", 2015, ApJ, 813, 109.
- 4. Drlica-Wagner, A., et al. (including **Li, T. S.**), "Search for Gamma-Ray Emission from DES Dwarf Spheroidal Galaxy Candidates with Fermi-LAT Data", 2015, ApJ, 809, L4
- 3. Bechtol, K., et al. (including **Li, T. S.**), "Eight New Milky Way Companions Discovered in First-year Dark Energy Survey Data", 2015, ApJ, 807, 50
- 2. Flaugher, B., et al. (including Li, T. S.), "The Dark Energy Camera", 2015, AJ, 150, 150
- 1. **Li, T. S.**, Marshall, J. L., Lépine, S., Williams, P., Chavez, J., "Optical BVRI Photometry of Common Proper Motion F/G/K+M Wide Separation Binaries", 2014, AJ, 148, 60