# Ting Li

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## Research Interests

Near-field Cosmology, Galactic Archaeology, Dark Matter, Dwarf Galaxies, Stellar Streams, Metal-poor Stars, Stellar Spectroscopy, Stellar Populations, Ground-based Instrumentation, Optical Observations, Modern Sky Surveys, Big Data and Survey Science.

## Research Positions

Assistant Professor — 2021 –
Department of Astronomy and Astrophysics, University of Toronto
Toronto, Canada

Hubble Fellow, Carnegie-Princeton Fellow — 2019 – 2021
Carnegie Observatories, Carnegie Institution for Science
Pasadena, California, USA
Department of Astrophysical Sciences, Princeton University
Princeton, New Jersey, USA

Leon M. Lederman Fellow in Experimental Physics — 2016 – 2019
Fermi National Accelerator Laboratory
Batavia, Illinois, USA

Research Associate — 2011 – 2016
Department of Physics & Astronomy, Texas A&M University
College Station, Texas, USA

## Education

**Ph.D., Physics**, Texas A&M University, Texas, USA — 2010 - 2016
Thesis: *Exploring Milky Way Halo Substructures with Large-area Sky Surveys*
Advisors: *Dr. Darren L. DePoy, Dr. Jennifer L. Marshall* (Co-chair)

**M.S., Space Science and Technology** (SpaceMaster – Erasmus Mundus Course) — 2008 - 2010
Luleå University of Technology, Kiruna, Sweden
Université Paul Sabatier Toulouse III, Toulouse, France
Thesis: *Design of the High Energy Particle Instrument for Electrons for the Energization and Radiation in Geospace Mission*
Advisor: *Masafumi Hirahana, University of Tokyo / JAXA*

**B.S., Physics,** Fudan University, Shanghai, China — 2004 - 2008
Thesis: *Study of Quasar Accretion Disk with Microlensing*
Advisor: *Feng Yuan, Shanghai Astronomical Observatory*

**Minor, Diplomacy**, Fudan University, Shanghai, China — 2004 - 2008

## Student Mentorship

Mairead Heiger (graduate at UToronto) 2022 –
- Magellan/IMACS spectroscopy on dwarf galaxies

Jordan Bruce (undergrad at UToronto) 2021 –
- Magellan/IMACS spectroscopy on globular clusters

Jessica Patel (undergrad at UToronto) 2021 –
- VLT/GIRAFF spectroscopy on dwarf galaxies

Charlie Hughes (undergrad at UToronto) 2021 –
- Photometric metallicity with S5 and DECam

William Cenry (undergrad at UChicago) 2021 –
- Publication 70 in "Selected Refereed Publication" list

Peter Ferguson (Former graduate at Texas A&M; now postdoc at UW Madison) 2019 – 2021
- Publication 65 in "Selected Refereed Publication" list

Sydney Jenkins (Former undergrad at UChicago; now graduate at MIT) 2018 – 2021
- Publication 60 in "Selected Refereed Publication" list

Nora Shipp (Former graduate at UChicago; now postdoc at MIT) 2017 – 2021
- Publication 26 & 38 & 62 in "Selected Refereed Publication" list

Ethan Tse (High school student at IMSA) 2018 – 2019
- Data quality assurance for S5

Daniel Nagasawa (Former graduate student at Texas A&M) 2015 – 2018
- Publication 23 in "Selected Refereed Publication" list

Nicholas Mondrik (Former undergrad at Texas A&M; graduate at Harvard) 2015 – 2016
- Publication 9 in "Selected Refereed Publication" list

## Scientific Collaborations

Member, SDSS-V 2021 –
https://www.sdss5.org/

PI, Southern Stellar Stream Spectroscopic Survey (S5) 2018 –
https://s5collab.github.io/

Member, DECam Local Volume Exploration (DELVE) 2018 –
https://delve-survey.github.io/

Member, LSST Dark Energy Science Collaboration (DESC) 2016 –
https://lsstdesc.org/

Member, Dark Energy Spectroscopic Instrument (DESI) 2016 –
https://www.desi.lbl.gov/

Member, Magellanic Satellites Survey (MagLiteS) 2016 –

Builder, Dark Energy Survey (DES) 2015 –

Member, Dark Energy Survey (DES) 2012 –
https://www.darkenergysurvey.org/

## Honors & Awards

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|---|---|
| NASA Hubble Fellowship | 2019 – 2021 |
| Carnegie-Princeton Fellowship | 2019 – 2021 |
| KICP Associate Fellow, University of Chicago | 2016 – 2019 |
| Leon M. Lederman Fellow in Experiment Physics | 2016 – 2019 |
| Mitchell Institute Graduate Fellowship | 2015 – 2016 |
| Dr. Chia-Lai Wang Memorial Scholarship | 2013 – 2014 |
| Erasmus Mundus Scholarship | 2008 – 2010 |
| Graduated with First - Class Student, Fudan Univeristy | 2008 |
| People's Scholarship, Fudan University | 2004 – 2008 |

## Service and Leadership

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|---|---|
| Canadian Time Allocation Committee for Gemini and CFHT | 2022 – |
| DESI Publication Board | 2021 – |
| Canadian Rep on the MSE Science Advisory Group | 2021 – |
| Astronomy Colloquium Committee, University of Toronto | 2021 – |
| TMT/WFOS Science Team Member | 2021 – |
| S5 Project Leader/Founder ($\sim$ 40 members) | 2018 – |
| DES Milky Way Working Group Coordinator ($\sim$ 50 members) | 2018 – 2021 |
| Group Leader, Dark Matter Group for Maunekea Spectroscopic Explorer | 2018 – |
| SOC member, Kavli/AURA Workshop Series "Petabytes to Science" | 2018 – 2019 |
| SOC chair, KICP Workshop "Near-Field Cosmology with DES's DR1" | 2018 |
| Co-organizer, Astro Seminar, Fermilab | 2018 – 2019 |
| Group Leader, DES Chromatic Correction and Interstellar Reddening Task Force | 2017 – 2019 |
| DES Early Career Scientist Committee | 2016 – 2018 |
| Referee/reviewer for Nature, ApJ, ApJL, MNRAS, Astronomy & Astrophysics, HST proposals | 2015 – |

## Public Outreach

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|---|---|
| Presenter, Astronomy on Tap | 2018 – 2019 |
| Lecturer, Fermilab Lifelong Learning Institute (LLI) Program | 2018 – 2019 |
| Lecturer, Fermilab Saturday Morning Physics for High School Students | 2017 – 2019 |
| Coordinator, Fermilab Saturday Morning Physics for High School Students | 2016 – 2019 |
| E/PO representative, Dark Energy Survey | 2014 – 2016 |
| Coordinator, Science Olympiad | 2014 |
| Instructor, "Expanding Your Horizons" Workshop | 2012 |
| Organizer, Texas A&M Physics and Astronomy Festival | 2011 – 2014 |
| Organizer, Texas A&M Star Parties | 2011 – 2013 |

## Observation, Data Reduction & Instrumentation Experience

Contribution to DES:

- Commissioning and Operation, Photometric Calibration, Data Release
- Designed and built the Atmospheric Transmission Monitoring Camera (aTmCam), including 100+ nights of prototype testing and instrument commissioning
- Earned **DES builder status (authorship)** and **personal data rights** since 2015

Contribution to DESI:

- Active Optics System on Focus and Alignment for DESI

- Target selection and survey planning for Milky Way Survey
- Earned **DESI external participant status** since 2019

Assembled over 80 Instrument Collimators of the Visible Integral-Field Replicable Unit Spectrographs for the Hobby-Eberly Telescope Dark Energy Experiment (HETDEX)

Extensive observing experience:
- Optical imaging: Blanco(4m)/DECam (80+ nights)
- Optical spectroscopy: Magellan(6.5m)/IMACS (60+ nights), Magellan(6.5m)/MIKE (20+ nights), Magellan(6.5m)/M2FS (8 nights); McDonald Observatory, 2.1m/ES2 (30+ nights), 2.7m/VIRUS-P (9 nights).
- **Served as PI or co-PI for over 100 nights on 4m–8m class telescopes, including 70+ nights on Anglo-Australian Telescope, 30+ nights on Magellan, and 100+ hours on VLT**

## Selected Recent Conferences, Seminars, Colloquia

22. Invited Seminar Talk, University of Notre Dame, Notre Dame, IN, April 2022
21. Invited Plenary Talk, TeV Particle Astrophysics 2021 Conference, Chengdu, China, Oct 27, 2021
20. Colloquium, Indiana University, Bloomington, IN, USA, Oct 19, 2021
19. Colloquium, National Research Council of Canada's Herzberg Astronomy and Astrophysics Research Centre, Victoria, BC, Sept 28, 2021
18. Invited Seminar Talk at N3AS (Link to Talk), May 11, 2021
17. Colloquium, the University of British Columbia, Vancouver, Canada, Apr 19, 2021
16. Invited Seminar Talk, the University of Kentucky, Lexington, KY, Feb 3, 2021
15. Invited Seminar Talk, UC Davis, Davis, CA, Jan 28, 2021
14. Invited Seminar Talk, University College London, London, England, Nov 2 2020
13. Invited Seminar Talk, McGill Space Institute, Montreal, Canada, Oct 13 2020
12. iPoster, 235th AAS Meeting, Honolulu, Hawaii, Jan 2020
11. Colloquium, UC Santa Cruz, Santa Cruz, CA, Nov 2019
10. Colloquium, University of Toronto, Toronto, Canada, Oct 2019
9. Invited Talk, LSST Dark Matter Workshop, University of Chicago, Chicago, IL, Aug 2019
8. Invited Talk, IAU Symposium 353 "Galactic Dynamics in the Era of Large Surveys", Shanghai, China, Jul 2019
7. Invited Talk, Conference "Science in our own Backyard: Exploring the Galaxy and the Local Group with WFIRST", Caltech, Pasadena, CA, Jun 2019
6. Invited Talk, KITP Workshop "In the Balance: Stasis and Disequilibrium in the Milky Way", Santa Barbara, CA, Apr 2019
5. Invited Seminar Talk, Carnegie Mellon University, PA, Mar 2019
4. Invited Participant, Kavli/AURA Salon Workshop "Petabytes to Science", Chicago, IL, Jul 2018
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+ refereed publications, including 10 1st author, 15 2nd/3rd author, 40+ with significant contributions.**
*h-index since 2017*: 67
*citations since 2017*: 25000
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

71. Drlica-Wagner, A. et al. (including **Li, T. S.**) "The DECam Local Volume Exploration Survey Data Release 2", arXiv:2203.16565

70. Cerny, W., Simon, J. D., **Li, T. S.** et al. "Pegasus IV: Discovery and Spectroscopic Confirmation of an Ultra-Faint Dwarf Galaxy in the Constellation Pegasus", arXiv:2203.11788

69. **Li, T. S.**, Ji, A. P., Pace, A. B. et al. "$S^5$: The Orbital and Chemical Properties of One Dozen Stellar Streams", 2022, ApJ, 928, 30

68. Yuan, Z., Malhan, K., Sestito, F., (including **Li, T. S.**) "The Complexity of the Cetus Stream Unveiled from the Fusion of STREAMFINDER and StarGO", in press, arXiv:2112,05775

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. "$S^5$: 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 $\times$ 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 $\alpha$-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

## Selected Conference Proceedings

6. Meisner, A. M., et al. (including **Li, T. S.**), "Performance of Kitt Peak's Mayall 4-meter telescope during DESI commissioning", 2020, Proc. of SPIE Vol. 11447, 1144794
5. Drlica-Wagner, A., Marrufo Villalpando, E., O'Neil, J., Estrada, J., Holland, S., Kurinsky, N., **Li, T. S.**, "Characterization of skipper CCDs for cosmological applications", 2020, Proc. of SPIE Vol. 11454, 114541A
4. **Li, T. S.**, DePoy, D. L., Marshall, J. L., Nagasawa, D. Q., Carona, D. W., Boada, S., "Monitoring the atmospheric throughput at Cerro Tololo Inter-American Observatory with aTmCam", 2014, Proc. of SPIE Vol. 9147, 91476Z, arXiv:14077047
3. DePoy, D. L., Allen, R., **Li, T. S.**, Marshall, J. L., Papovich, C., Prochaska, T., Shectman, S., "An update on the wide field, multi-object, moderate-resolution, spectrograph for the Giant Magellan Telescope", 2014, Proc. of SPIE Vol. 9147, 914720
2. Marshall, J. L., DePoy, D. L., Prochaska, T., Allen, R.D., Williams, P., Rheault, J.-P., **Li, T. S.**, and 22 colleagues, "VIRUS instrument collimator assembly", 2014, Proc. of SPIE Vol. 9147, 91473S
1. **Li, T. S.**, DePoy, D. L., Kessler, R., Burke, D. L., Marshall, J. L., Wise, J., Rheault, J.-P., Carona, D. W., Boada, S., Prochaska, T., Allen, R., "aTmcam: a simple atmospheric transmission monitoring camera for sub 1% photometric precision", 2012, Proc. of SPIE Vol. 8446, 84462L, arXiv:14077047

## Selected White Papers, Reports, Books

7. Facilitator for Snowmass CF03 white papers (arXiv:2203.06200)
6. Author for 7 Astro2020 Science White Papers (including one leading author).
5. Chapter Leader, The Detailed Science Case for the Maunakea Spectroscopic Explorer, 2019 edition, 2019, arXiv:1904.04907 (entire document), arXiv: 1903.03155 (one chapter)
4. Chapter Author, Probing the Fundamental Nature of Dark Matter with the Large Synoptic Survey Telescope, 2019, arXiv:1902.01055
3. Organizer and Chapter Author, Petabytes to Science, 2019, arXiv:1905.05116
2. Chapter Author, GMT Science Book 2018: https://www.gmto.org/gallery/gmt-resources/#GMT_Science_Book_2018
1. Chapter Author, Maximizing Science in the Era of LSST: A Community-Based Study of Needed US Capabilities, 2016, arXiv:1610.01661