Mailing Address

Department of Astronomy and Astrophysics

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Canada

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, Data and Survey Science.

Research Positions

Assistant Professor 20)21 –
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Department of Astronomy and Astrophysics, University of Toronto

Toronto, Canada

NASA Hubble Fellowship Program Einstein Fellow 2019 – 2021

Carnegie Observatories, Carnegie Institution for Science

Pasadena, California, USA Science Contact: *Joshua Simon*

Leon M. Lederman Fellow in Experimental Physics 2016 – 2019

Fermi National Accelerator Laboratory

Batavia, Illinois, USA

Science Contact: Brenna Flaugher

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

Thesis: Study of Quasar Accretion Disk with Microlensing

Advisor: Feng Yuan, Shanghai Astronomical Observatory

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

2004 - 2008

Student Mentorship

Charlie Hughes (undergrad at UToronto)	2021 -
 Magellan/IMACS spectroscopy on globular clusters 	
Jessica Patel (undergrad at UToronto)	2021 –
VLT/GIRAFF spectroscopy on dwarf galaxies Chaptia Hughes (undergood at LTT-popts)	2021
Charlie Hughes (undergrad at UToronto)	2021 –
 Photometric metallicity with S5 and DECam William Cenry (undergrad at UChicago) 	2021 -
Magellan/IMACS spectroscopy on dwarf galaxies	2021
Sydney Jenkins (Former undergrad at UChicago; now graduate at MIT) • Publication 59 in "Selected Refereed Publication" list	2018 – 202
Nora Shipp (Former graduate at UChicago; now postdoc at MIT) • Publication 26 & 38 & 61 in "Selected Refereed Publication" list	2017 – 202
Ethan Tse (High school student at IMSA)	2018 – 201
Data quality assurance for S5 Daniel Nagasawa (Former graduate student at Texas A&M)	2015 – 201
 Publication 23 in "Selected Refereed Publication" list Nicholas Mondrik (Former undergrad at Texas A&M graduate at Harvard) Publication 9 in "Selected Refereed Publication" list 	2015 – 2010
Honors & Awards	
NASA Hubble Fellowship	2019 – 202
Carnegie-Princeton Fellowship	2019 – 202
KICP Associate Fellow, University of Chicago	2016 – 201
Leon M. Lederman Fellow in Experiment Physics	2016 – 201
Mitchell Institute Graduate Fellowship	2015 - 201
Dr. Chia-Lai Wang Memorial Scholarship	2013 - 201
Erasmus Mundus Scholarship	2008 – 201
Graduated with First - Class Student, Fudan University	2008
People's Scholarship, Fudan University	2004 – 200
Scientific Collaborations	
Member, SDSS-V	2021 -
https://www.sdss5.org/	2018 –
PI, Southern Stellar Stream Spectroscopic Survey (S ₅) https://s5collab.github.io/	2016 –
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.darkeneroysurvey.org/	

Service and Leadership

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 (~ 40 members)	2018 –
DES Milky Way Working Group Coordinator (~ 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 for Nature, ApJ, ApJL, MNRAS, Astronomy & Astrophysics	2015 -
Public Outreach	

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
- Served as PI or co-PI for over 100 nights on 4m-8m class telescopes, including 50+ nights on Anglo-Australian Telescope, 20+ nights on Magellan, and 100+ hours on VLT

Selected Recent Conferences, Seminars, Colloquia

- 30. Invited Plenary Talk, TeV Particle Astrophysics 2021 Conference, Chengdu, China, Oct 27, 2021
- 29. Colloquium, Indiana University, Bloomington, IN, USA, Oct 19, 2021
- 28. Colloquium, National Research Council of Canada's Herzberg Astronomy and Astrophysics Research Centre, Victoria, BC, Sept 28, 2021
- 27. Invited Seminar Talk at N3AS (Link to Talk), May 11, 2021
- 26. Colloquium, the University of British Columbia, Vancouver, Canada, Apr 19, 2021
- 25. Invited Seminar Talk, the University of Kentucky, Lexington, KY, Feb 3, 2021
- 24. Invited Seminar Talk, UC Davis, Davis, CA, Jan 28, 2021
- 23. Invited Seminar Talk, University College London, London, England, Nov 2 2020
- 22. Invited Seminar Talk, McGill Space Institute, Montreal, Canada, Oct 13 2020
- 21. iPoster, 235th AAS Meeting, Honolulu, Hawaii, Jan 2020
- 20. Colloquium, UC Santa Cruz, Santa Cruz, CA, Nov 2019
- 19. Colloquium, University of Toronto, Toronto, Canada, Oct 2019
- 18. Invited Talk, LSST Dark Matter Workshop, University of Chicago, Chicago, IL, Aug 2019
- 17. Invited Talk, IAU Symposium 353 "Galactic Dynamics in the Era of Large Surveys", Shanghai, China, Jul 2019
- 16. Invited Talk, Conference "Science in our own Backyard: Exploring the Galaxy and the Local Group with WFIRST", Caltech, Pasadena, CA, Jun 2019
- 15. Invited Talk, KITP Workshop "In the Balance: Stasis and Disequilibrium in the Milky Way", Santa Barbara, CA, Apr 2019
- 14. Invited Seminar Talk, Carnegie Mellon University, PA, Mar 2019
- 13. Contributed Talk, Conference "Massively multiplexed spectroscopy with MSE: Science, Project and Vision", Tucson, AZ, Feb 2019
- 12. Invited Seminar Talk, University of Notre Dame, Notre Dame, IN, Oct 2018
- 11. Invited Participant, Kavli/AURA Salon Workshop "Petabytes to Science", Chicago, IL, Jul 2018
- 10. Participant, Aspen Workshop "Dynamics of the Milky Way System in the Era of Gaia", Aspen, CO, Sep 2018
- 9. Organizer, KICP Workshop, Near-Field Cosmology with DES's DR1 and Beyond, Chicago, IL, Jun 2018
- 8. Invited Long-term Participant, KITP Workshop, The Small-Scale Structure of Cold(?) Dark Matter, Santa Babara, CA, May 2018
- 7. Invited Plenary Talk, SnowPAC, Big Questions, Big Surveys, Big Data: Astronomy & Cosmology in the 2020s, Snowbird, UT, May 2018
- 6. Colloquium, CSIRO Astronomy and Space Science, Sydney, Australia, Nov 2017
- 5. Colloquium, Australia Astronomical Observatory, Sydney, Australia, Nov 2017
- 4. Invited Seminar Talk, University of Pittsburgh, Pittsburgh, PA, Oct 2017
- 3. Invited Webinar Talk, LIneA, Brazil, Sep 2017
- 2. Contributed Talk, Conference "Shedding Light on the Dark Universe with Extremely Large Telescopes", Lanzhou, China, Aug 2017
- 1. Invited Seminar Talk, Texas A&M University, College Station, TX, May 2017

Selected Refereed Publications

Summary: 200+ refereed publications, including 10 1st author, 15 2nd/3rd author, 40+ with significant contributions.

h-index: 65

citations since 2017: 23000

For complete publication list, please refer to:

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

or

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

- 66. **Li, T. S.**, Ji, A. P., Pace, A. B. et al. "S⁵: The Orbital and Chemical Properties of One Dozen Stellar Streams", in press, arXiv:2110.06950
- 65. 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
- 64. 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
- 63. Tavangar, K., Ferguson, P., Shipp, N., (including Li, T. S.) "From the Fire: A Deeper Look at the Phoenix Stream", 2022, ApJ, 925, 118
- 62. 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
- 61. 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
- 60. 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
- 59. 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
- 58. 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
- 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

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
- 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 CFo3 white papers
- 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