

Wenbin Lu — Curriculum Vitae

CONTACT INFORMATION

Address: Department of Astronomy
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Berkeley, CA 94720, USA

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<https://wenbinlu.github.io>

RESEARCH INTEREST

My research has been focused on understanding various high-energy transient phenomena, including *tidal disruption events*, *quasi-periodic eruptions*, *fast radio bursts*, *gamma-ray bursts*, *fast X-ray transients*, *supernovae*, and *compact object mergers*. My projects involve hydrodynamics, radiation, stellar physics, special/general relativity, and plasma physics.

EMPLOYMENT

Assistant Professor , <i>University of California Berkeley</i> , California, USA	22-
Lyman Spitzer Fellow , <i>Princeton University</i> , New Jersey, USA	21-22
Burke Fellow , <i>California Institute of Technology</i> , California, USA	18-21

EDUCATION

Ph.D. in Astronomy, <i>University of Texas at Austin</i> , Texas, USA	13-18
B.S. in Physics, <i>Peking University</i> , Beijing, China	09-13

HONORS & AWARDS

Scilog Fellow	25-26
Hellman Fellow	24-25
Rose Hills Innovator	23-24
Spitzer Postdoc Fellowship	21-22
Burke Postdoc Fellowship	18-21
David Alan Benfield Memorial Fellowship in Astronomy	18

PROFESSIONAL EXPERIENCES

Teaching

Graduate Course: AstroC207 – *Radiation* (2022 Fall, 2023 Fall, 2025 Spring)

Undergraduate Courses: Astro160 — *Stellar Physics* (2024 Fall, 2025 Fall); Astro84 — *Astrophysical Origins of Chemical Elements* (2023 Spring)

Textbook

Astrophysical Radiation, freely available [on Zenodo](#) (comments welcome!)

Mentoring

Graduate Students

Howard H.-T. Huang (Astro)	24-
Savannah Cary (Astro)	23-
Kishore Patra (Astro → UCSC postdoc)	22-24

Postdocs

Calvin Leung, Hubble Fellow	23-
Yuhan Yao, Miller Fellow	23-
Payel Mukhopadhyay, N3AS Fellow	22-23

Undergraduate Students (* marks external or exchange students)

Jovan JohnPeter (Astro)	25-
Darby McCauley (Astro → UIUC grad student)	22-24
*Gauri Batra (Cornell → Stanford grad student)	22-23

Broader Services

Referee for <i>Nature</i> , <i>MNRAS</i> , <i>ApJ</i> , <i>ApJL</i> , <i>PRL</i> , <i>PRD</i> , <i>Space Science Reviews</i> , <i>JHEAP</i> , <i>Universe</i>	16-
Reviewer Panelist for proposals to NSF and NASA	
Reviewer for observing proposals to FAST telescope	
Reviewer for consolidated grant application to the Science & Technology Facilities Council (STFC) of the UK	
Chair for panel discussion in FRB2022 Workshop, Cornell University	22
Local Organizing Committee for FRB2021 Conference, University of Amsterdam	

Involvement in Future Observing Facilities

UVEX (PI Harrison): Co-I and Deep Synoptic Surveys WG	22-
LS4 (PI Nugent): Multi-Messenger WG	23-

Colloquia

Astronomy Colloquium, University of California Santa Cruz	04/2025
Astronomy Colloquium, University of Illinois Urbana-Champaign	11/2024
Physics Colloquium, University of Nevada Las Vegas	04/2024
Physics Colloquium, California State University Sacramento	09/2023
Astronomy Colloquium, Tsinghua University	03/2021
Astronomy Colloquium, University of California Berkeley	02/2021
Institute of Theory and Computation Colloquium Series, Harvard University	10/2020
McGill Space Institute Astrophysics Seminar	09/2020
Carnegie Observatories Colloquium	02/2020
Astronomy Colloquium, California Institute of Technology	01/2020
Physics and Astronomy Colloquium, University of Nevada at Las Vegas	11/2018
Kavli Institute for Astronomy and Astrophysics Colloquium, Peking University	09/2018
Black Hole Initiative Colloquium, Harvard University	04/2017

Seminars

TAPIR Seminar, Caltech, USA	03/2024
Online Seminar, Max-Planck-Institute for gravitational physics, Germany	05/2023
X-ray Binary Seminar, University of Southampton, UK	03/2023
THEA Seminar, Columbia University, USA	05/2022
Astroplasma Seminar, Princeton University, USA	02/2022
High-Energy Astrophysics Seminar, Hebrew University of Jerusalem, Israel	12/2021
Brown Bag Lunch, Massachusetts Institute of Technology, USA	05/2021
Theoretical Astrophysics Seminar, University of Florida, USA	10/2020
Astroplasmas Seminar, Princeton University, USA	10/2020
Astrophysics Lunch, Cornell University, USA	09/2020
(Blackboard) Carnegie Theory Talks, Pasadena, USA	07/2020
TAPIR Seminar, Caltech, USA	10/2018
(Blackboard) Carnegie Theory Talks, Pasadena, USA	09/2018

Astropasmas Seminar, Princeton University, USA	12/2017
Astronomy Tea Talk, Caltech, USA	10/2017
Transient Lunch, UC Santa Cruz, USA	09/2017
Theoretical Astrophysics Center Seminar, UC Berkeley, USA	09/2017
(Blackboard) Institute of Theory and Computation, Harvard University, USA	04/2017
Lunch Talk, University of Kentucky, USA	10/2016
Astronomy Seminar, University of Science and Technology of China, China	05/2016
Lunch Talk, KIAA/Peking University, China	05/2016
Lunch Talk, University of Nevada at Las Vegas, USA	05/2015

Invited Conference Talks

<i>Broad-Brush Model for Quasi-Periodic Eruptions</i>	04/2024
TDE Workshop, UC Santa Barbara, USA	
<i>Late-time Accretion in Neutron Star Mergers</i>	12/2023
Gravitational Wave workshop, Tokyo University, Japan	
<i>Origin of Quasi-Period Eruptions</i>	12/2023
Texas Symposium, T.D. Lee Institute, China	
<i>Implications of the FRB source in the M81 Globular Cluster</i>	05/2023
FRB Workshop, University of Science and Technology of China, Hefei, China	
<i>Understanding the Fast Radio Bursts in our Local Universe</i>	10/2022
FRB2022 Workshop, Cornell University, Ithaca, NY	
<i>Towards Understanding of Fast Radio Bursts</i>	02/2021
FRB workshop, Yukawa Institute for Theoretical Physics, Kyoto University	
<i>General Constraints on the Emission Mechanisms of Fast Radio Bursts</i>	02/2020
FRB workshop, CCA Flatiron Institute, New York	
<i>Implications of Stream Self-Crossing in Tidal Disruption Events</i>	01/2020
TDE workshop, Yukawa Institute for Theoretical Physics, Kyoto University	
<i>Accretion Disk Evolution in Binary Neutron Star Mergers</i>	09/2019
ZTF Theory Network Meeting, San Luis Obispo, USA	
<i>Statistical and Polarization Properties of Fast Radio Bursts</i>	09/2019
Toronto FRB Day, CITA and University of Toronto	
<i>Energetics and Polarization Properties of Fast Radio Bursts</i>	01/2019

T. D. Lee Institute mini-workshop, Shanghai, China	
<i>Understanding the Polarization of Fast Radio Bursts</i>	07/2018
ZTF Theory Network Meeting, Santa Barbara, USA	

Contributed Conference Talks

<i>Origin of Quasi-Periodic Eruptions</i>	03/2023
Aspen Winter Conference, Aspen Center for Physics, USA	
<i>Aftermath of white dwarf tidal capture</i>	01/2022
Aspen Winter Conference, Aspen Center for Physics, USA	
<i>Implications of a rapidly varying FRB in a globular cluster of M81</i>	08/2021
FRB2021 Conference, University of Amsterdam, the Netherlands	
<i>A Unified Picture of Galactic and Cosmological Fast Radio Bursts</i>	07/2020
FRB2020 Conference, West Virginia University, USA	
<i>The Radiation Mechanism of Fast Radio Bursts</i>	12/2017
Deciphering the Violent Universe, Playa del Carmen, Mexico	

Public Talks

<i>How Gamma-Ray Bursts are Connected to Human Life</i>	02/2023
Chabot Space and Science Center, Oakland, CA	
<i>Endless hunt for black holes</i>	04/2021
Caltech Stargazing Lecture Series	
<i>Stories of black holes tearing apart stars at galactic centers</i>	02/2017
McDonald Observatory & DoA Board of Visitors Meeting, UT Austin	
<i>General relativity and black holes</i>	04/2016
Planetary Organization for Space Science and Exploration in Jackson	
School of Geosciences, UT Austin	

PUBLICATION LIST [ADS link to all my publications](#) [Google Scholar link](#)

Published (*h-index* 36, *m-index* 3.3, total citations 3800+)

84. Miller, A., Abrams, N., Aldering, G., Anand, S., Angus, C., et al. **(Lu, W.)**, The La Silla Schmidt Southern Survey, *pas*, 137, 9, (2025)(sep) [PDF](#)
83. Scherbak, P., **Lu, W.**, Fuller, J., Rapid Binary Mass Transfer: Circumbinary Outflows and Angular Momentum Losses, *ApJ*, 990, 2, (2025)(sep) [PDF](#)
82. Masterson, M., De, K., Panagiotou, C., Kara, E., **Lu, W.**, et al., JWST's First View of Tidal Disruption Events: Compact, Accretion-driven Emission Lines and Strong Silicate Emission in an Infrared-selected Sample, *ApJL*, 988, 2, (2025)(aug) [PDF](#)
81. Feng, Y., Zhang, Y., Xie, J., Yang, Y., Qu, Y., et al. **(Lu, W.)**, Multi-year polarimetric monitoring of four CHIME-discovered repeating fast radio bursts with FAST, *Science China Physics, Mechanics, and Astronomy*, 68, 8, (2025)(aug) [PDF](#)
80. Yao, Y., Chornock, R., Ward, C., Hammerstein, E., Sfaradi, I., et al. **(Lu, W.)**, A Massive Black Hole 0.8 kpc from the Host Nucleus Revealed by the Offset Tidal Disruption Event AT2024tvd, *ApJL*, 985, 2, (2025)(jun) [PDF](#)
79. Tsuna, D., **Lu, W.**, Stellar Tidal Disruptions by Newborn Neutron Stars or Black Holes: A Mechanism for Hydrogen-poor (Super)luminous Supernovae and Fast Blue Optical Transients, *ApJ*, 986, 1, (2025)(jun) [PDF](#)
78. Somalwar, J., Ravi, V., Yao, Y., Guolo, M., Graham, M., et al. **(Lu, W.)**, The First Systematically Identified Repeating Partial Tidal Disruption Event, *ApJ*, 985, 2, (2025)(jun) [PDF](#)
77. Wharton, R., Majid, W., Sherman, M., Connor, L., Kocz, J., et al. **(Lu, W.)**, High-frequency Fast Radio Burst Search of Nearby Star-forming Galaxies M77 and M82, *ApJ*, 984, 2, (2025)(may) [PDF](#)
76. Zheng, J., Zhu, J., **Lu, W.**, Zhang, B., EP240414a: Off-axis View of a Jet-cocoon System from an Expanded Progenitor Star, *ApJ*, 985, 1, (2025)(may) [PDF](#)
75. Somalwar, J., Ravi, V., **Lu, W.**, VLASS Tidal Disruption Events with Optical Flares. II. Discovery of Two TDEs with Intermediate Width Balmer Emission Lines and Connections to the Ambiguous Extreme Coronal Line Emitters, *ApJ*, 983, 2, (2025)(apr) [PDF](#)
74. Earl, N., French, K., Ramirez-Ruiz, E., Auchettl, K., Raimundo, S., et al. **(Lu, W.)**, AT 2020nov: Evidence for Disk Reprocessing in a Rare Tidal Disruption Event, *ApJ*, 983, 1, (2025)(apr) [PDF](#)

73. Goodwin, A., Mummery, A., Laskar, T., Alexander, K., Anderson, G., et al. (**Lu, W.**), A Second Radio Flare from the Tidal Disruption Event AT2020vwl: A Delayed Outflow Ejection?, *ApJ*, 981, 2, (2025)(mar) [PDF](#)
72. Zhuang, J., Shen, R., Mou, G., **Lu, W.**, Interaction of an Outflow with Surrounding Gaseous Clouds as the Origin of Late-time Radio Flares in Tidal Disruption Events, *ApJ*, 979, 2, (2025)(feb) [PDF](#)
71. Yao, P., Quataert, E., Jiang, Y., **Lu, W.**, White, C., et al., Star-Disk Collisions: Implications for Quasi-periodic Eruptions and Other Transients near Supermassive Black Holes, *ApJ*, 978, 1, (2025)(jan) [PDF](#)
70. Yao, Y., Guolo, M., Tombesi, F., Li, R., Gezari, S., et al. (**Lu, W.**), Subrelativistic Outflow and Hours-timescale Large-amplitude X-Ray Dips during Super-Eddington Accretion onto a Low-mass Massive Black Hole in the Tidal Disruption Event AT2022lri, *ApJ*, 976, 1, (2024)(nov) [PDF](#)
69. **Lu, W.**, Matsumoto, T., Matzner, C., Misaligned precessing jets are choked by the accretion disc wind, *MNRAS*, 533, 1, (2024)(sep) [PDF](#)
68. Orr, M., Burkhart, B., **Lu, W.**, Ponnada, S., Hummels, C., et al., Objects May Be Closer than They Appear: Significant Host Galaxy Dispersion Measures of Fast Radio Bursts in Zoom-in Simulations, *ApJL*, 972, 2, (2024)(sep) [PDF](#)
67. Patra, K., **Lu, W.**, Ma, Y., Quataert, E., Miniutti, G., et al., Constraints on the narrow-line region of the X-ray quasi-periodic eruption source GSN 069, *MNRAS*, 530, 4, (2024)(jun) [PDF](#)
66. Yao, Y., **Lu, W.**, Harrison, F., Kulkarni, S., Gezari, S., et al., The On-axis Jetted Tidal Disruption Event AT2022cmc: X-Ray Observations and Broadband Spectral Modeling, *ApJ*, 965, 1, (2024)(apr) [PDF](#)
65. Kirsten, F., Ould-Boukattine, O., Herrmann, W., Gawroński, M., Hessels, J., et al. (**Lu, W.**), A link between repeating and non-repeating fast radio bursts through their energy distributions, *Nature Astronomy*, 8, (2024)(mar) [PDF](#)
64. Sheikh, S., Farah, W., Pollak, A., Siemion, A., Chamma, M., et al. (**Lu, W.**), Characterization of the repeating FRB 20220912A with the Allen Telescope Array, *MNRAS*, 527, 4, (2024)(feb) [PDF](#)
63. Huang, H., **Lu, W.**, Tidal disruption rate suppression by the event horizon of spinning black holes, *MNRAS*, 527, 2, (2024)(jan) [PDF](#)
62. **Lu, W.**, Quataert, E., Quasi-periodic eruptions from mildly eccentric unstable mass transfer in galactic nuclei, *MNRAS*, 524, 4, (2023)(oct) [PDF](#)

61. Ryder, S., Bannister, K., Bhandari, S., Deller, A., Ekers, R., et al. (**Lu, W.**), A luminous fast radio burst that probes the Universe at redshift 1, *Science*, 382, 6668, (2023)(oct) [PDF](#)
60. Yao, Y., Ravi, V., Gezari, S., van Velzen, S., **Lu, W.**, et al., Tidal Disruption Event Demographics with the Zwicky Transient Facility: Volumetric Rates, Luminosity Function, and Implications for the Local Black Hole Mass Function, *ApJL*, 955, 1, (2023)(sep) [PDF](#)
59. **Lu, W.**, Quataert, E., Late-time accretion in neutron star mergers: Implications for short gamma-ray bursts and kilonovae, *MNRAS*, 522, 4, (2023)(jul) [PDF](#)
58. Batra, G., **Lu, W.**, Bonnerot, C., Phinney, E., General relativistic stream crossing in tidal disruption events, *MNRAS*, 520, 4, (2023)(apr) [PDF](#)
57. Kremer, K., Li, D., **Lu, W.**, Piro, A., Zhang, B., et al., Prospects for Detecting Fast Radio Bursts in the Globular Clusters of Nearby Galaxies, *ApJ*, 944, 1, (2023)(feb) [PDF](#)
56. **Lu, W.**, Fuller, J., Quataert, E., Bonnerot, C., On rapid binary mass transfer - I. Physical model, *MNRAS*, 519, 1, (2023)(feb) [PDF](#)
55. Wang, B., Xu, H., Jiang, J., Xu, J., Niu, J., et al. (**Lu, W.**), Atlas of dynamic spectra of fast radio burst FRB 20201124A, *Chinese Physics B*, 32, 2, (2023)(feb) [PDF](#)
54. **Lu, W.**, Accretion Disk Evolution in Tidal Disruption Events, *Handbook of X-ray and Gamma-ray Astrophysics*, (2022)() [PDF](#)
53. Andreoni, I., **Lu, W.**, Grefenstette, B., Kasliwal, M., Yan, L., et al., Hard X-Ray Observations of the Hydrogen-poor Superluminous Supernova SN 2018hti with NuSTAR, *ApJL*, 941, 1, (2022)(dec) [PDF](#)
52. Andreoni, I., Coughlin, M., Perley, D., Yao, Y., **Lu, W.**, et al., A very luminous jet from the disruption of a star by a massive black hole, *Nature*, 612, 7940, (2022)(dec) [PDF](#)
51. Kumar, P., Gill, R., **Lu, W.**, Propagation of Alfvén waves in the charge starvation regime, *MNRAS*, 516, 2, (2022)(oct) [PDF](#)
50. Mooley, K., Anderson, J., **Lu, W.**, Optical superluminal motion measurement in the neutron-star merger GW170817, *Nature*, 610, 7931, (2022)(oct) [PDF](#)
49. Patra, K., **Lu, W.**, Brink, T., Yang, Y., Filippenko, A., et al., Spectropolarimetry of the tidal disruption event AT 2019qiz: a quasi-spherical reprocessing layer, *MNRAS*, 515, 1, (2022)(sep) [PDF](#)
48. Yao, Y., **Lu, W.**, Guolo, M., Pasham, D., Gezari, S., et al., The Tidal Disruption Event AT2021ehb: Evidence of Relativistic Disk Reflection, and Rapid Evolution of the Disk-Corona System, *ApJ*, 937, 1, (2022)(sep) [PDF](#)

47. Xu, H., Niu, J., Chen, P., Lee, K., Zhu, W., et al. **(Lu, W.)**, A fast radio burst source at a complex magnetized site in a barred galaxy, *Nature*, 609, 7928, (2022)(sep) [PDF](#)
46. Kremer, K., Lombardi, J., **Lu, W.**, Piro, A., Rasio, F., et al., Hydrodynamics of Collisions and Close Encounters between Stellar Black Holes and Main-sequence Stars, *ApJ*, 933, 2, (2022)(jul) [PDF](#)
45. Bonnerot, C., Pessah, M., **Lu, W.**, From Pericenter and Back: Full Debris Stream Evolution in Tidal Disruption Events, *ApJL*, 931, 1, (2022)(may) [PDF](#)
44. Fuller, J., **Lu, W.**, The spins of compact objects born from helium stars in binary systems, *MNRAS*, 511, 3, (2022)(apr) [PDF](#)
43. Yang, Y., **Lu, W.**, Feng, Y., Zhang, B., Li, D., et al., Temporal Scattering, Depolarization, and Persistent Radio Emission from Magnetized Inhomogeneous Environments near Repeating Fast Radio Burst Sources, *ApJL*, 928, 2, (2022)(apr) [PDF](#)
42. Bonnerot, C., **Lu, W.**, The nozzle shock in tidal disruption events, *MNRAS*, 511, 2, (2022)(apr) [PDF](#)
41. Somalwar, J., Ravi, V., Dong, D., Graham, M., Hallinan, G., et al. **(Lu, W.)**, The Nascent Milliquasar VT J154843.06+220812.6: Tidal Disruption Event or Extreme Accretion State Change?, *ApJ*, 929, 2, (2022)(apr) [PDF](#)
40. Feng, Y., Li, D., Yang, Y., Zhang, Y., Zhu, W., et al. **(Lu, W.)**, Frequency-dependent polarization of repeating fast radio bursts—implications for their origin, *Science*, 375, 6586, (2022)(mar) [PDF](#)
39. **Lu, W.**, Beniamini, P., Kumar, P., Implications of a rapidly varying FRB in a globular cluster of M81, *MNRAS*, 510, 2, (2022)(feb) [PDF](#)
38. Makhathini, S., Mooley, K., Brightman, M., Hotokezaka, K., Nayana, A., et al. **(Lu, W.)**, The Panchromatic Afterglow of GW170817: The Full Uniform Data Set, Modeling, Comparison with Previous Results, and Implications, *ApJ*, 922, 2, (2021)(dec) [PDF](#)
37. **Lu, W.**, McKee, C., Mooley, K., Infrared dust echoes from neutron star mergers, *MNRAS*, 507, 3, (2021)(nov) [PDF](#)
36. Beniamini, P., **Lu, W.**, Survival Times of Supramassive Neutron Stars Resulting from Binary Neutron Star Mergers, *ApJ*, 920, 2, (2021)(oct) [PDF](#)
35. Bij, A., Lin, H., Li, D., van Kerkwijk, M., Pen, U., et al. **(Lu, W.)**, Kinematics of Crab Giant Pulses, *ApJ*, 920, 1, (2021)(oct) [PDF](#)
34. Connor, L., Shila, K., Kulkarni, S., Flygare, J., Hallinan, G., et al. **(Lu, W.)**, Galactic Radio Explorer: An All-sky Monitor for Bright Radio Bursts, *pasp*, 133, 1025, (2021)(jul) [PDF](#)

33. Bonnerot, C., **Lu, W.**, Hopkins, P., First light from tidal disruption events, *MNRAS*, 504, 4, (2021)(jul) [PDF](#)
32. **Lu, W.**, Fuller, J., Raveh, Y., Perets, H., Li, T., et al., The former companion of hyper-velocity star S5-HVS1, *MNRAS*, 503, 1, (2021)(may) [PDF](#)
31. Kremer, K., **Lu, W.**, Piro, A., Chatterjee, S., Rasio, F., et al., Fast Optical Transients from Stellar-mass Black Hole Tidal Disruption Events in Young Star Clusters, *ApJ*, 911, 2, (2021)(apr) [PDF](#)
30. **Lu, W.**, Beniamini, P., Bonnerot, C., On the formation of GW190814, *MNRAS*, 500, 2, (2021)(jan) [PDF](#)
29. **Lu, W.**, Piro, A., Waxman, E., Implications of Canadian Hydrogen Intensity Mapping Experiment repeating fast radio bursts, *MNRAS*, 498, 2, (2020)(oct) [PDF](#)
28. **Lu, W.**, Kumar, P., Zhang, B., A unified picture of Galactic and cosmological fast radio bursts, *MNRAS*, 498, 1, (2020)(oct) [PDF](#)
27. Kool, E., Reynolds, T., Mattila, S., Kankare, E., Pérez-Torres, M., et al. (**Lu, W.**), AT 2017gbl: a dust obscured TDE candidate in a luminous infrared galaxy, *MNRAS*, 498, 2, (2020)(oct) [PDF](#)
26. De Colle, F., **Lu, W.**, Jets from Tidal Disruption Events, *New Astronomy Reviews*, 89, (2020)(sep) [PDF](#)
25. **Lu, W.**, Phinney, E., Imprint of local environment on fast radio burst observations, *MNRAS*, 496, 3, (2020)(aug) [PDF](#)
24. Chen, G., Ravi, V., **Lu, W.**, The Multiwavelength Counterparts of Fast Radio Bursts, *ApJ*, 897, 2, (2020)(jul) [PDF](#)
23. Andreoni, I., **Lu, W.**, Smith, R., Masci, F., Bellm, E., et al., Zwicky Transient Facility Constraints on the Optical Emission from the Nearby Repeating FRB 180916.J0158+65, *ApJL*, 896, 1, (2020)(jun) [PDF](#)
22. Bonnerot, C., **Lu, W.**, Simulating disc formation in tidal disruption events, *MNRAS*, 495, 1, (2020)(jun) [PDF](#)
21. Piro, A., **Lu, W.**, Wind-reprocessed Transients, *ApJ*, 894, 1, (2020)(may) [PDF](#)
20. Kumar, P., **Lu, W.**, Radiation forces constrain the FRB mechanism, *MNRAS*, 494, 1, (2020)(may) [PDF](#)
19. **Lu, W.**, Bonnerot, C., Self-intersection of the fallback stream in tidal disruption events, *MNRAS*, 492, 1, (2020)(feb) [PDF](#)
18. **Lu, W.**, Piro, A., Implications from ASKAP Fast Radio Burst Statistics, *ApJ*, 883, 1, (2019)(sep) [PDF](#)

17. Kremer, K., **Lu, W.**, Rodriguez, C., Lachat, M., Rasio, F., et al., Tidal Disruptions of Stars by Black Hole Remnants in Dense Star Clusters, *ApJ*, 881, 1, (2019)(aug) [PDF](#)
16. **Lu, W.**, Kumar, P., The maximum luminosity of fast radio bursts, *MNRAS*, 483, 1, (2019)(feb) [PDF](#)
15. **Lu, W.**, Kumar, P., Narayan, R., Fast radio burst source properties from polarization measurements, *MNRAS*, 483, 1, (2019)(feb) [PDF](#)
14. **Lu, W.**, Kumar, P., On the Missing Energy Puzzle of Tidal Disruption Events, *ApJ*, 865, 2, (2018)(oct) [PDF](#)
13. De Colle, F., **Lu, W.**, Kumar, P., Ramirez-Ruiz, E., Smoot, G., et al., Thermal and non-thermal emission from the cocoon of a gamma-ray burst jet, *MNRAS*, 478, 4, (2018)(aug) [PDF](#)
12. Carballo-Rubio, R., Kumar, P., **Lu, W.**, Seeking observational evidence for the formation of trapping horizons in astrophysical black holes, *Phys. Rev. D*, 97, 12, (2018)(jun) [PDF](#)
11. **Lu, W.**, Kumar, P., On the radiation mechanism of repeating fast radio bursts, *MNRAS*, 477, 2, (2018)(jun) [PDF](#)
10. Bhattacharya, M., **Lu, W.**, Kumar, P., Santana, R., Monte Carlo Simulations of Photospheric Emission in Relativistic Outflows, *ApJ*, 852, 1, (2018)(jan) [PDF](#)
9. **Lu, W.**, Krolik, J., Crumley, P., Kumar, P., Radiative interaction between the relativistic jet and optically thick envelope in tidal disruption events, *MNRAS*, 471, 1, (2017)(oct) [PDF](#)
8. Dai, L., **Lu, W.**, Probing Motion of Fast Radio Burst Sources by Timing Strongly Lensed Repeaters, *ApJ*, 847, 1, (2017)(sep) [PDF](#)
7. Kumar, P., **Lu, W.**, Bhattacharya, M., Fast radio burst source properties and curvature radiation model, *MNRAS*, 468, 3, (2017)(jul) [PDF](#)
6. **Lu, W.**, Kumar, P., Narayan, R., Stellar disruption events support the existence of the black hole event horizon, *MNRAS*, 468, 1, (2017)(jun) [PDF](#)
5. **Lu, W.**, Kumar, P., A universal EDF for repeating fast radio bursts?, *MNRAS*, 461, 1, (2016)(sep) [PDF](#)
4. Crumley, P., **Lu, W.**, Santana, R., Hernández, R., Kumar, P., et al., Swift J1644+57: an ideal test bed of radiation mechanisms in a relativistic super-Eddington jet, *MNRAS*, 460, 1, (2016)(jul) [PDF](#)
3. **Lu, W.**, Kumar, P., External inverse-Compton emission from jetted tidal disruption events, *MNRAS*, 458, 1, (2016)(may) [PDF](#)

2. **Lu, W.**, Kumar, P., Evans, N., Infrared emission from tidal disruption events - probing the pc-scale dust content around galactic nuclei, *MNRAS*, 458, 1, (2016)(may) [PDF](#)
1. **Lu, W.**, Kumar, P., Smoot, G., Probing massive stars around gamma-ray burst progenitors, *MNRAS*, 453, 2, (2015)(oct) [PDF](#)

Submitted

12. Burn, M., Goodwin, A., Anderson, G., Miller-Jones, J., Cendes, Y., et al. (**Lu, W.**), The 6 year radio lightcurve of the tidal disruption event AT2019azh, *submitted*, arXiv: 2509.17525, (2025)(sep) [PDF](#)
11. Tsuna, D., Fuller, J., **Lu, W.**, Fates of Rotating Supergiants from Stellar Mergers and the Landscape of Transients upon Core-collapse, *submitted*, arXiv: 2508.21116, (2025)(aug) [PDF](#)
10. Nayana, A., Margutti, R., Wiston, E., Laskar, T., Migliori, G., et al. (**Lu, W.**), The Most Luminous Known Fast Blue Optical Transient AT 2024wpp: Unprecedented Evolution and Properties in the X-rays and Radio, *submitted*, arXiv: 2509.00952, (2025)(aug) [PDF](#)
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