

Wenbin Lu — Curriculum Vitae

CONTACT INFORMATION

Address: Department of Astronomy
University of California Berkeley
501 Campbell Hall, # 3411
Berkeley, CA 94720, USA

Email: wenbinlu@berkeley.edu
<https://wenbinlu.github.io>

RESEARCH INTEREST

My research has been focused on understanding the underlying physics behind various high-energy transient phenomena, including **fast radio bursts**, **tidal disruption events**, and **compact object mergers**. My areas of expertise include plasma physics, special/general relativity, hydrodynamics, radiative transfer, and stellar evolution. I have also worked on gamma-ray bursts, formation history of binary black holes/neutron stars, accretion disks, pre-supernova mass loss, tidal capture, and hyper-velocity stars.

EMPLOYMENT

Assistant Professor , <i>University of California Berkeley</i> , California, USA	2022-
Lyman Spitzer Fellow , <i>Princeton University</i> , New Jersey, USA	2021-2022
Burke Fellow , <i>California Institute of Technology</i> , California, USA	2018-2021

EDUCATION

Ph.D. in Astronomy, <i>University of Texas at Austin</i> , Texas, USA	2013-2018
B.S. in Physics, <i>Peking University</i> , Beijing, China	2009-2013

HONORS & AWARDS

Rose Hills Innovator	2023-2024
Spitzer Postdoc Fellowship	2021-2022
Burke Postdoc Fellowship	2018-2021
David Alan Benfield Memorial Fellowship in Astronomy	Spring 2018
Graduate School Named Continuing Fellowship	2015-2017
Frank Edmonds Memorial Fellowship in Astronomy	Summer 2015

PROFESSIONAL EXPERIENCES

Teaching

Graduate Course: Radiative Processes (2022 Fall, 2023 Fall)

Undergraduate Courses: Astrophysical Origins of Chemical Elements (2023 Spring);
Stellar Physics (2024 Fall)

Mentoring

Graduate Students

Kishore Patra (→ UCSC postdoc)	2022-2024
Dashiell Carrel (Physics)	2023-
Savannah Cary (Astro)	2023-
Hao-Tse (Howard) Huang (Astro)	2024-

Postdocs

Calvin Leung, Hubble Fellow	2023-
Yuhan Yao, Miller Fellow	2023-
Payel Mukhopadhyay, N3AS Fellow	2022-2023

Undergraduate Students

Darby McCauley (→ UIUC grad student)	2022-2024
Sophia Risin (Astro)	2023-
Daniel Gilbert (Astro)	2023
Hao-Tse (Howard) Huang (→ UC Berkeley grad student)	2022
Gauri Batra (Cornell → Stanford grad student)	2021

University Services (at UCB)

Faculty Search Committee	2023
Grad Admission Committee (Chair)	2023, 2024

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>	2016-
Chair for panel discussion in FRB2022 Workshop, Cornell University	2022
Reviewer Panelist for proposals to National Science Foundation (NSF)	2021 & 2022

Reviewer Panelist for proposals to NASA	2023
Reviewer for observing proposals to FAST telescope	2021 & 2022
Reviewer for consolidated grant application to the Science & Technology Facilities Council (STFC) of the UK	2021
Local Organizing Committee for FRB2021 Conference, University of Amsterdam	2021

Involvement in Future Observing Facilities

UVEX (PI Harrison): Co-I and Deep Synoptic Surveys WG	2022-
LS4 (PI Nugent): Multi-Messenger WG	2023-

Colloquia

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
Astroplasmas 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 Disks 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	
<u>Contributed Conference Talks</u>	
<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	
<u>Public Talks</u>	
<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	

Published (*h*-index 31, *m*-index 3.1, citations 2800+)

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. 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](#)
68. **Lu, W.**, Matsumoto, T., Matzner, C., Misaligned precessing jets are choked by the accretion disc wind, *MNRAS*, 533, 1, (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. 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](#)
61. **Lu, W.**, Quataert, E., Quasi-periodic eruptions from mildly eccentric unstable mass transfer in galactic nuclei, *MNRAS*, 524, 4, (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. 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](#)
56. 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](#)
55. **Lu, W.**, Fuller, J., Quataert, E., Bonnerot, C., On rapid binary mass transfer - I. Physical model, *MNRAS*, 519, 1, (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. Mooley, K., Anderson, J., **Lu, W.**, Optical superluminal motion measurement in the neutron-star merger GW170817, *Nature*, 610, 7931, (2022)(oct) [PDF](#)
50. Kumar, P., Gill, R., **Lu, W.**, Propagation of Alfvén waves in the charge starvation regime, *MNRAS*, 516, 2, (2022)(oct) [PDF](#)
49. 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](#)
48. 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](#)
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. Bonnerot, C., **Lu, W.**, The nozzle shock in tidal disruption events, *MNRAS*, 511, 2, (2022)(apr) [PDF](#)
43. Fuller, J., **Lu, W.**, The spins of compact objects born from helium stars in binary systems, *MNRAS*, 511, 3, (2022)(apr) [PDF](#)
42. 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](#)
41. 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](#)
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. 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](#)
35. Beniamini, P., **Lu, W.**, Survival Times of Supramassive Neutron Stars Resulting from Binary Neutron Star Mergers, *ApJ*, 920, 2, (2021)(oct) [PDF](#)
34. Bonnerot, C., **Lu, W.**, Hopkins, P., First light from tidal disruption events, *MNRAS*, 504, 4, (2021)(jul) [PDF](#)
33. 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, *passp*, 133, 1025, (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.**, Kumar, P., Zhang, B., A unified picture of Galactic and cosmological fast radio bursts, *MNRAS*, 498, 1, (2020)(oct) [PDF](#)
28. 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](#)
27. **Lu, W.**, Piro, A., Waxman, E., Implications of Canadian Hydrogen Intensity Mapping Experiment repeating fast radio bursts, *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. Bonnerot, C., **Lu, W.**, Simulating disc formation in tidal disruption events, *MNRAS*, 495, 1, (2020)(jun) [PDF](#)
22. 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](#)
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 Repeater, *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

9. 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, *submitted*, arXiv: 2412.12991, (2024)(dec) [PDF](#)
8. 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?, *submitted*, arXiv: 2410.18665, (2024)(oct) [PDF](#)
7. Yao, P., Quataert, E., Jiang, Y., **Lu, W.**, White, C., et al., Star-Disk Collisions: Implications for QPEs and Other Transients Near Supermassive Black Holes, *submitted*, arXiv: 2407.14578, (2024)(jul) [PDF](#)
6. Zhuang, J., Shen, R., Mou, G., **Lu, W.**, Interaction of an outflow with surrounding gaseous clouds as the origin of the late-time radio flares in TDEs, *submitted*, arXiv: 2406.08012, (2024)(jun) [PDF](#)
5. 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, *submitted*, arXiv: 2310.03795, (2023)(oct) [PDF](#)
4. Somalwar, J., Ravi, V., Yao, Y., Guolo, M., Graham, M., et al. (**Lu, W.**), The first systematically identified repeating partial tidal disruption event, *submitted*, arXiv: 2310.03782, (2023)(oct) [PDF](#)
3. Gayathri, V., Bartos, I., Rosswog, S., Miller, M., Veske, D., et al. (**Lu, W.**), Do gravitational wave observations in the lower mass gap favor a hierarchical triple origin?, *submitted*, arXiv: 2307.09097, (2023)(jul) [PDF](#)
2. Kulkarni, S., Harrison, F., Grefenstette, B., Earnshaw, H., Andreoni, I., et al. (**Lu, W.**), Science with the Ultraviolet Explorer (UVEX), *submitted*, arXiv: 2111.15608, (2021)(nov) [PDF](#)
1. **Lu, W.**, Beniamini, P., McDowell, A., Deceleration of relativistic jets with lateral expansion, *submitted*, arXiv: 2005.10313, (2020)(may) [PDF](#)