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Select Publications:

1. **Wharton, R. S.** et al., “High Frequency FRB Search of Nearby Star Forming Galaxies M77 and M82”, *ApJ*, submitted
2. Bansal K., **Wharton, R. S.**, et al., “Simultaneous Radio and X-ray Observations of the Magnetar Swift J1818.0–1607”, *MNRAS*, 523, 2401, 2023
3. Liu, K., Young, A., **Wharton, R. S.**, et al., “Detection of Pulses from the Vela Pulsar at Millimeter Wavelengths with Phased ALMA”, *ApJL*, 885, L10, 2019
4. **Wharton, R. S.**, et al., “VLA Observations of Single Pulses from the Galactic Center Magnetar”, *ApJ*, 875, 143, 2019
5. **Wharton, R. S.**, “Radio Interferometric Searches for Galactic Center Pulsars and Fast Radio Bursts”, PhD Thesis, 2017
6. Chatterjee, S., Law, C. J., **Wharton, R. S.**, et al., “Direct localization of a fast radio burst and its enigmatic counterpart”, *Nature*, 541, 58, 2017
7. **Wharton, R. S.**, et al., “Multiwavelength Constraints on Pulsar Populations in the Galactic Center”, *ApJ*, 753, 108, 2012

Publications:

1. Torne, P., et al. (287 authors, including **Wharton, R. S.**), “A Search for Pulsars around Sgr A* in the First Event Horizon Telescope Data Set”, *ApJ*, 959, 14, 2023
2. Bethapudi S., et al. (5 authors, including **Wharton, R. S.**), “High frequency study of FRB 20180916B using the 100-m Effelsberg radio telescope”, *MNRAS*, 524, 3303, 2023
3. Abbate F., et al. (11 authors, including **Wharton, R. S.**), “Rotation measure variations in Galactic Centre pulsars”, *MNRAS*, 524, 2966, 2023
4. Caleb M., et al. (30 authors, including **Wharton, R. S.**), “A subarcsec localized fast radio burst with a significant host galaxy dispersion measure contribution”, *MNRAS*, 524, 2064, 2023
5. Main R. A., et al. (8 authors, including **Wharton, R. S.**), “Modelling Annual Scintillation Velocity Variations of FRB 20201124A”, *MNRAS*, 522, L36, 2023
6. Gautam T., et al. (9 authors, including **Wharton, R. S.**), “Upgraded GMRT survey for pulsars in globular clusters. I. Discovery of a millisecond binary pulsar in NGC 6652”, *A&A*, 664, A54, 2022

7. Main R. A., et al. (8 authors, including **Wharton, R. S.**), “Scintillation time-scale measurement of the highly active FRB20201124A”, *MNRAS*, 509, 3172, 2022
8. Marthi V. R., et al. (10 authors, including **Wharton, R. S.**), “Burst properties of the highly active FRB20201124A using uGMRT”, *MNRAS*, 509, 2209, 2022
9. Eatough R. P., et al. (13 authors, including **Wharton, R. S.**), “Multi-epoch searches for relativistic binary pulsars and fast transients in the Galactic Centre”, *MNRAS*, 507, 5053, 2021
10. Majid W. A., et al. (9 authors, including **Wharton, R. S.**), “A Bright Fast Radio Burst from FRB 20200120E with Sub-100 Nanosecond Structure”, *ApJL*, 919, L6, 2021
11. Liu K., et al. (27 authors, including **Wharton, R. S.**), “An 86 GHz Search for Pulsars in the Galactic Center with the Atacama Large Millimeter / submillimeter Array”, *ApJ*, 914, 30, 2021
12. Torne P., et al. (16 authors, including **Wharton, R. S.**), “Searching for pulsars in the Galactic centre at 3 and 2 mm”, *A&A*, 650, A95, 2021
13. Hilmarsson G. H., et al. (13 authors, including **Wharton, R. S.**), “Rotation Measure Evolution of the Repeating Fast Radio Burst Source FRB 121102”, *ApJL*, 908, L10, 2021
14. Aggarwal K., et al. (12 authors, including **Wharton, R. S.**), “Your: Your Unified Reader”, *JOSS*, 5, 2750, 2020
15. Marthi V. R., et al. (8 authors, including **Wharton, R. S.**), “Detection of 15 bursts from FRB 180916.J0158+65 with the upgraded Giant Metrewave Radio Telescope”, *MNRAS*, 499, L16, 2020
16. Madison, D. R., et al. (14 authors, including **Wharton, R. S.**), “A Deep Targeted Search for Fast Radio Bursts from the Sites of Low-redshift Short Gamma-Ray Bursts”, *ApJ*, 887, 252, 2019
17. Event Horizon Telescope Collaboration (348 authors, including **Wharton, R. S.**), “First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole” *ApJL*, 875, L1, 2019
18. Event Horizon Telescope Collaboration (341 authors, including **Wharton, R. S.**), “First M87 Event Horizon Telescope Results. II. Array and Instrumentation” *ApJL*, 875, L2, 2019
19. Event Horizon Telescope Collaboration (217 authors, including **Wharton, R. S.**), “First M87 Event Horizon Telescope Results. III. Data Processing and Calibration” *ApJL*, 875, L3, 2019
20. Event Horizon Telescope Collaboration (215 authors, including **Wharton, R. S.**), “First M87 Event Horizon Telescope Results. IV. Imaging the Central Supermassive Black Hole” *ApJL*, 875, L4, 2019
21. Event Horizon Telescope Collaboration (221 authors, including **Wharton, R. S.**), “First M87 Event Horizon Telescope Results. V. Physical Origin of the Asymmetric Ring” *ApJL*, 875, L5, 2019

22. Event Horizon Telescope Collaboration (214 authors, including **Wharton, R. S.**), “First M87 Event Horizon Telescope Results. VI. The Shadow and Mass of the Central Black Hole” *ApJL*, 875, L6, 2019
23. Patel, C., et al. (29 authors, including **Wharton, R. S.**), “PALFA Single-pulse Pipeline: New Pulsars, Rotating Radio Transients, and a Candidate Fast Radio Burst”, *ApJ*, 869, 181, 2018
24. Stovall, K., et al. (35 authors, including **Wharton, R. S.**), “PALFA Discovery of a Highly Relativistic Double Neutron Star Binary”, *ApJL*, 854, L22, 2018
25. Michilli, D., et al. (34 authors, including **Wharton, R. S.**), “An extreme magneto-ionic environment associated with the fast radio burst source FRB 121102”, *Nature*, 553, 182, 2018
26. Law, C., et al. (36 authors, including **Wharton, R. S.**), “A Multi-telescope Campaign on FRB 121102: Implications for the FRB Population”, *ApJ*, 850, 76, 2017
27. Cordes, J. M., Wasserman, I., Hessels, J. W. T., Lazio, T. J. W., Chatterjee, S., **Wharton, R. S.**, “Lensing of Fast Radio Bursts by Plasma Structures in Host Galaxies”, *ApJ*, 842, 35, 2017
28. Marcote, B., et al. (29 authors, including **Wharton, R. S.**), “The Repeating Fast Radio Burst FRB 121102 as Seen on Milliarcsecond Angular Scales”, *ApJL*, 834, L8, 2017
29. Tendulkar, S. P., et al. (24 authors, including **Wharton, R. S.**), “The Host Galaxy and Redshift of the Repeating Fast Radio Burst FRB 121102”, *ApJL*, 834, L7, 2017
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31. Chiti, A., Chatterjee, S., **Wharton, R. S.**, Cordes, J. M., Lazio, T. J. W., Kaplan, D. L., Bower, G. C., Croft, S., “Transient Events in Archival Very Large Array Observations of the Galactic Center”, *ApJ*, 833, 11, 2016
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