

## Vikram Ravi — Publications List

- \* Refereed publications, or publications submitted to refereed journals, are indicated with asterisks.
1. \***Ravi, V.** 2019, *The prevalence of repeating fast radio bursts*, Nature Astronomy, (published online doi:10.1038/s41550-019-0831-y)
  2. \***Ravi, V.**, et al. 2019, *A fast radio burst localised to a massive galaxy*, Nature (Accelerated Article Preview doi:10.1038/s41586-019-1389-7), arXiv:1907.01542.
  3. \*Osłowski, S., Shannon, R. M., **Ravi, V.**, (25 authors) 2019, *Commensal discovery of four Fast Radio Bursts during Parkes Pulsar Timing Array observations*, accepted by Monthly Notices of the Royal Astronomical Society, arXiv:1906.09793.
  4. \*Kocz, J., **Ravi, V.**, (9 authors) 2019, *DSA-10: A Prototype Array for Localizing Fast Radio Bursts*, submitted to Monthly Notices of the Royal Astronomical Society, arXiv:1906.08699.
  5. \*Vedantham, H. K., **Ravi, V.** 2019, *Faraday conversion and magneto-ionic variations in fast radio bursts*, Monthly Notices of the Royal Astronomical Society Letters, 485, L78.
  6. Kelley, L. Z., (23 authors), **Ravi, V.**, (7 authors) 2019, *Multi-Messenger Astrophysics with Pulsar Timing Arrays*, Science white paper submitted to the Astro2020 Decadal Survey, arXiv:1903.07644
  7. **Ravi, V.**, et al. 2019, *Fast Radio Burst Tomography of the Unseen Universe*, Science white paper submitted to the Astro2020 Decadal Survey, arXiv:1903.06535
  8. \***Ravi, V.**, Loeb, A. 2019, *Explaining the Statistical Properties of Fast Radio Bursts with Suppressed Low-frequency Emission*, The Astrophysical Journal, 874, 72
  9. \***Ravi, V.** 2019, *Measuring the circum- and inter-galactic baryon contents with fast radio bursts*, The Astrophysical Journal, 872, 88
  10. \*Petroff, E., (22 authors), **Ravi, V.**, (3 authors) 2019, *A fast radio burst with a low dispersion measure*, Monthly Notices of the Royal Astronomical Society, 482, 3109
  11. \***Ravi, V.** 2019, *The observed properties of Fast Radio Bursts*, Monthly Notices of the Royal Astronomical Society, 482, 1966
  12. \*Ho, A. Y. Q., Phinney, E. S., **Ravi, V.**, (14 authors) 2019, *AT2018cow: A Luminous Millimeter Transient*, The Astrophysical Journal, 871, 73
  13. **Ravi, V.** 2018, *Flares from Coalescing Black Holes in the Centimeter-Wavelength Transient Sky*, in Science with a Next Generation Very Large Array, ed. Eric Murphy, ASP Conference Series, 517, 781
  14. \*Porayko, N., (18 authors), **Ravi, V.**, (10 authors) 2018, *Parkes Pulsar Timing Array constraints on ultralight scalar-field dark matter*, Physical Review D, 98, 102002
  15. Lower, M., (21 authors), **Ravi, V.**, (4 authors) 2018, *Detection of a Glitch in the Pulsar J1709-4429*, Research Notes of the American Astronomical Society, 2, 139
  16. Caleb, M., (13 authors), **Ravi, V.**, (3 authors) 2018, *First interferometric detections of Fast Radio Bursts*, Proceedings of the International Astronomical Union, IAU Symposium “Pulsar Astrophysics the Next Fifty Years”, 337, 322

17. \***Ravi, V.**, Vedantham, H. K., Phinney, E. S. 2018, *La Freccia Rossa: An IR-dark cloud hosting the Milky Way intermediate-mass black hole candidate*, Monthly Notices of the Royal Astronomical Society Letters, 478, L72
18. \*Farah, W., (20 authors), **Ravi, V.**, (4 authors) 2018, *FRB microstructure revealed by the real-time detection of FRB170827*, Monthly Notices of the Royal Astronomical Society, 478, 1209
19. \*Spiewak, R., (17 authors), **Ravi, V.**, (3 authors) 2018, *PSR J2322–2650 – A low-luminosity millisecond pulsar with a planetary-mass companion*, Monthly Notices of the Royal Astronomical Society, 475, 269
20. \*Ho, A. Y. Q., (5 authors), **Ravi, V.**, (14 authors) 2018, *iPTF Archival Search for Fast Optical Transients*, The Astrophysical Journal Letters, 854, L13
21. \***Ravi, V.** 2017, *MAXI J1957+032: an accreting neutron star possibly in a triple system*, The Astrophysical Journal, 851, 114
22. \*Bailes, M., (19 authors), **Ravi, V.**, (2 authors), *The UTMOST: A hybrid digital signal processor transforms the MOST*, Publications of the Astronomical Society of Australia, 34, 45
23. \*Petroff, E., (27 authors), **Ravi, V.**, (7 authors, ANTARES Collaboration, HESS Collaboration) 2017, *A polarized fast radio burst at low Galactic latitude*, Monthly Notices of the Royal Astronomical Society, 469, 4465
24. \*Vedantham, H. K., (8 authors), **Ravi, V.**, (4 authors) 2017, *The Peculiar Light Curve of J1415+1320: A Case Study in Extreme Scattering Events*, The Astrophysical Journal, 845, 90
25. \*Vedantham, H. K., (8 authors), **Ravi, V.**, (4 authors) 2017, *Symmetric Achromatic Variability in Active Galaxies: A Powerful New Gravitational Lensing Probe?*, The Astrophysical Journal, 845, 89
26. \*Wang, J.-B., (15 authors), **Ravi, V.**, (9 authors) 2017, *Comparison of pulsar positions from timing and very long baseline astrometry*, Monthly Notices of the Royal Astronomical Society, 469, 425
27. \*Caleb, M., (3 authors), **Ravi, V.**, (3 authors) 2017, *The first interferometric detections of fast radio bursts*, Monthly Notices of the Royal Astronomical Society, 468, 3746
28. \*Walker, M. A., (6 authors), **Ravi, V.** 2017, *Extreme Radio-wave Scattering Associated with Hot Stars*, The Astrophysical Journal, 843, 15
29. \*Goobar, A., (25 authors), **Ravi, V.**, (7 authors) 2017, *iPTF16geu: A multiply imaged, gravitationally lensed type Ia supernova*, Science, 356, 291
30. \*Lentati, L., (14 authors), **Ravi, V.**, (9 authors) 2017, *Wide-band profile domain pulsar timing analysis*, Monthly Notices of the Royal Astronomical Society, 466, 3706
31. \*Shannon, R. M., **Ravi, V.** (co-lead authors) 2017, *Radio-interferometric Monitoring of FRB 131104: A Coincident AGN Flare, but No Evidence for a Cosmic Fireball*, The Astrophysical Journal Letters, 837, L22
32. \***Ravi, V.**, Shannon, R. M. (co-lead authors), Bailes, M., et al. 2016, *The magnetic field and turbulence of the cosmic web measured using a brilliant fast radio burst*, Science, 354, 1249
33. \*Vedantham, H. K., **Ravi, V.**, Hallinan, G., Shannon, R. M. 2016, *The Fluence and Distance Distributions of Fast Radio Bursts*, The Astrophysical Journal, 830, 75

34. \*Shannon, R. M., (13 authors), **Ravi, V.**, (9 authors) 2016, *The Disturbance of a Millisecond Pulsar Magnetosphere*, The Astrophysical Journal Letters, 828, L1
35. \*Vedantham, H. K., **Ravi, V.**, Mooley, K., et al. 2016, *On Associating Fast Radio Bursts with Afterglows*, The Astrophysical Journal Letters, 824, L9
36. \*Caleb, M., (11 authors), **Ravi, V.**, (2 authors) 2016, *Fast Radio Transient searches with UTMOST at 843 MHz*, Monthly Notices of the Royal Astronomical Society, 458, 718
37. \*Caleb, M., (5 authors), **Ravi, V.**, (1 author) 2016, *Are the distributions of fast radio burst properties consistent with a cosmological population?*, Monthly Notices of the Royal Astronomical Society, 458, 708
38. \*Lynch, C., Murphy, T., **Ravi, V.**, et al. 2016, *Radio detections of southern ultracool dwarfs*, Monthly Notices of the Royal Astronomical Society, 457, 1224
39. \*Madison, D. R., (17 authors), **Ravi, V.**, (7 authors) 2016, *Versatile directional searches for gravitational waves with Pulsar Timing Arrays*, Monthly Notices of the Royal Astronomical Society, 455, 3662
40. \*Lasky, P. D., (16 authors), **Ravi, V.**, (9 authors) 2016, *Gravitational-Wave Cosmology across 29 Decades in Frequency*, Physical Review X, 6, 011035
41. \*Reardon, D. J., (12 authors), **Ravi, V.**, (6 authors) 2016, *Timing analysis for 20 millisecond pulsars in the Parkes Pulsar Timing Array*, Monthly Notices of the Royal Astronomical Society, 455, 1751
42. **Ravi, V.**, & Lasky, P. D. 2015, *A neutron star progenitor for FRBs? Insights from polarisation measurements*, arXiv:1601.06131
43. \*Shannon, R. M., **Ravi, V.**, Lentati, L. T., et al. 2015, *Gravitational waves from binary supermassive black holes missing in pulsar observations*, Science, 349, 1522
44. \*Coles, W. A., (12 authors), **Ravi, V.**, (6 authors) 2015, *Pulsar Observations of Extreme Scattering Events*, The Astrophysical Journal, 2, 113
45. \*Lasky, P. D., Melatos, A., **Ravi, V.**, Hobbs, G. 2015, *Pulsar timing noise and the minimum observation time to detect gravitational waves with pulsar timing arrays*, Monthly Notices of the Royal Astronomical Society, 449, 3293
46. \*Dai, S., (15 authors), **Ravi, V.**, (3 authors) 2015, *A study of multifrequency polarization pulse profiles of millisecond pulsars*, Monthly Notices of the Royal Astronomical Society, 449, 3223
47. \***Ravi, V.**, Wyithe, J. S. B., Shannon, R. M., et al. 2015, *Prospects for gravitational-wave detection and supermassive black hole astrophysics with pulsar timing arrays*, Monthly Notices of the Royal Astronomical Society, 447, 2772
48. \*Wang, J. B., (6 authors), **Ravi, V.**, (12 authors) 2015, *Searching for gravitational wave memory bursts with the Parkes Pulsar Timing Array*, Monthly Notices of the Royal Astronomical Society, 446, 1657
49. \***Ravi, V.**, Shannon, R. M., & Jameson, A. 2015, *A fast radio burst in the direction of the Carina dwarf spheroidal galaxy*, The Astrophysical Journal Letters, 779, L5

50. Lockwood, S., **Ravi, V.**, Wishnow, E. H., et al. 2014, *Recent Observations of Betelgeuse and New Instrumentation at the ISI*, Proceedings of a conference held 28-31 March 2011 (Resolving The Future Of Astronomy With Long-Baseline Interferometry), Ed. M. J. Creech-Eakman, J. A. Guzik, & R. E. Stencel. ASP Conference Series, 487, 337
51. \*Zhu, X.-J., (15 authors), **Ravi, V.**, (2 authors) 2014, *An all-sky search for continuous gravitational waves in the Parkes Pulsar Timing Array data set*, Monthly Notices of the Royal Astronomical Society, 444, 3709
52. \*Shannon, R.-M., (7 authors), **Ravi, V.**, (11 authors) 2014, *Limitations in timing precision due to single-pulse shape variability in millisecond pulsars*, Monthly Notices of the Royal Astronomical Society, 443, 1463
53. \***Ravi, V.**, Wyithe, J. S. B., Shannon, R. M., et al. 2014, *Binary supermassive black hole environments diminish the gravitational wave signal in the pulsar timing band*, Monthly Notices of the Royal Astronomical Society, 442, 56
54. \***Ravi, V.**, & Lasky, P. D. 2014, *The birth of black holes: neutron star collapse times, gamma-ray bursts and fast radio bursts*, Monthly Notices of the Royal Astronomical Society, 441, 2433
55. \*Lasky, P. D., Haskell, B., **Ravi, V.**, Howell, E. J., & Coward, D. M. 2014, *Nuclear equation of state from observations of short gamma-ray burst remnants*, Physical Review D, 89, 047302
56. \*Shannon, R. M., **Ravi, V.** (co-lead authors), Coles, W. A., Hobbs, G., et al. 2013, *Gravitational-wave limits from pulsar timing constrain supermassive black hole evolution*, Science, 342, 334
57. \*Keith, M. J., (13 authors), **Ravi, V.**, (4 authors) 2013, *Measurement and correction of variations in interstellar dispersion in high-precision pulsar timing*, Monthly Notices of the Royal Astronomical Society, 429, 2161
58. \*Yu, M., (7 authors), **Ravi, V.**, (3 authors) 2013, *Detection of 107 glitches in 36 southern pulsars*, Monthly Notices of the Royal Astronomical Society, 429, 688
59. \*Manchester, R. N., (21 authors), **Ravi, V.**, (8 authors) 2013, *The Parkes Pulsar Timing Array Project*, Publications of the Astronomical Society of Australia, 30, e017
60. \*Hobbs, G., (16 authors), **Ravi, V.**, (6 authors) 2012, *Development of a pulsar-based time-scale*, Monthly Notices of the Royal Astronomical Society, 427, 2780
61. \***Ravi, V.**, Wyithe, J. S. B., Hobbs, G., et al. 2012, *Does a "Stochastic" Background of Gravitational Waves Exist in the Pulsar Timing Band?*, The Astrophysical Journal, 761, 84
62. \*Lo, K. K., (5 authors), **Ravi, V.**, (2 authors) 2012, *Observations and modelling of pulsed radio emission from CU Virginis*, Monthly Notices of the Royal Astronomical Society, 421, 3316
63. \*Townes, C. H., Wishnow, E. H., & **Ravi, V.** 2012, *The Dust Distribution Immediately Surrounding V Hydrae*, Publications of the Astronomical Society of the Pacific, 123, 1370
64. **Ravi, V.**, Wishnow, E. H., Lockwood, S., et al. 2011, *The Many Faces of Betelgeuse*, Proceedings of the 16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, Ed. Christopher M. Johns-Krull, Matthew K. Browning, and Andrew A. West, ASP Conference Series, 448, 1025
65. van Belle, G., (7 authors), **Ravi, V.**, (1 author) 2011, *Fundamental Stellar Properties from Optical Interferometry*, Proceedings of the 16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, Ed. Christopher M. Johns-Krull, Matthew K. Browning, and Andrew A. West, ASP Conference Series, 448, 517

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67. **\*Ravi, V.**, Wishnow, E. H., Townes, C. H., et al. 2011, *The Non-uniform, Dynamic Atmosphere of Betelgeuse Observed at Mid-infrared Wavelengths*, The Astrophysical Journal, 740, 24
68. **\*Ravi, V.**, Hallinan, G., Hobbs, G., et al. 2011, *The Magnetosphere of the Ultracool Dwarf DENIS 1048-3956*, The Astrophysical Journal Letters, 753, L2
69. **\*Ravi, V.**, Hobbs, G., Wickramasinghe, D., et al. 2010, *Observations of radio pulses from CU Virginis*, Monthly Notices of the Royal Astronomical Society Letters, 408, 99
70. Wishnow, E. H., Mallard, W., **Ravi, V.**, et al. 2010, *Mid-infrared interferometry with high spectral resolution*, Proceedings of the SPIE, 7734, 773409
71. **\*Ravi, V.**, Manchester, R. N., & Hobbs, G. 2010, *Wide Radio Beams from gamma-ray Pulsars*, The Astrophysical Journal Letters, 716, L85