

# AKSHATHA K VYDULA

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## PUBLICATIONS

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1. **Vydula, A. K.**, Bowman, J. D., Lewis, D., Crawford, K., Kolopanis, M., Rogers, A. E., & Samson, T. (2023). Low-frequency Radio Recombination Lines Away from the Inner Galactic Plane. *The Astronomical Journal*, 167(1), 2. <https://doi.org/10.3847/1538-3881/ad08ba>
2. Sims, P. H., Bowman, J. D., Mahesh, N., Murray, S. G., Barrett, J. P., Cappallo, R., & **Vydula, A. K.** (2023). A Bayesian approach to modelling spectrometer data chromaticity corrected using beam factors—I. Mathematical formalism. *Monthly Notices of the Royal Astronomical Society*, 521(3), 3273-3297. <https://doi.org/10.1093/mnras/stad610>
3. Murray, S. G., Bowman, J. D., Sims, P. H., Mahesh, N., Rogers, A. E., Monsalve, R. A., & **Vydula, A. K.** (2022). A Bayesian calibration framework for EDGES. *Monthly Notices of the Royal Astronomical Society*, 517(2), 2264-2284. <https://doi.org/10.1093/mnras/stac2600>
4. **Vydula, A. K.**, Coupland, D.D.S., Mesick, K.E., Hardgrove, C. Effects of sub-surface temperature and surface compositions on the measurement of Neutron lifetime using a space-based Neutron spectrometer (*Submitted to Physical Review*)
5. Sims, P. H., Bowman, J. D., Mahesh, N., Murray, S. G., Barrett, J. P., Cappallo, R., **Vydula, A. K.** *BaNTER: a Bayesian Null-Test-Evidence-Ratio-based validation framework* (Submitted to MNRAS)

## TECHNICAL MEMOS

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1. [EVLA Memo #228, LoCo Memo #52](#): VLA 4-band Beam Width Measurement Using the Holography Observing Mode
2. [LoCo Memo #51](#) Observing Campaign for LWA Beam measurements
3. [LoCo Memo #50](#) Sensitivity analysis of pulsar beam mapping with the LWA and VLA
4. [LoCo Memo #49](#) Beam Mapping of LWA using Pulsar Gating
5. [LoCo EDGES Memo #200](#): Bench tests for EDGES-3 Ground Plane Resonance
6. [LoCo EDGES Memo #201](#): Ground Plane Resonance testing at the EDGES WA site
7. [LoCo EDGES Memo #202](#): EDGES WA Site Trip Summary Feb 2024
8. [LoCo EDGES Memo #203](#): Updates on `edges` software suite for EDGES-3 data analysis
9. [LoCo EDGES Memo #204](#): Investigation of reflections in long cable calibration source in EDGES absolute calibration design
10. [LoCo EDGES Memo #206](#): Validation of edges-cal using simulated sky signal