

# Cathryn M Trott

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/633555/publications.pdf>

Version: 2024-02-01

118  
papers

7,062  
citations

94433

37  
h-index

58581

82  
g-index

119  
all docs

119  
docs citations

119  
times ranked

9451  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-messenger Observations of a Binary Neutron Star Merger <sup>*</sup> . Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
2	GLEAM: The GaLactic and Extragalactic All-Sky MWA Survey. Publications of the Astronomical Society of Australia, 2015, 32, .	3.4	221
3	Improvement in Lesion Detection with Whole-Body Oncologic Time-of-Flight PET. Journal of Nuclear Medicine, 2011, 52, 347-353.	5.0	167
4	Epoch of reionization window. I. Mathematical formalism. Physical Review D, 2014, 90, .	4.7	167
5	THE IMPACT OF POINT-SOURCE SUBTRACTION RESIDUALS ON 21 cm EPOCH OF REIONIZATION ESTIMATION. Astrophysical Journal, 2012, 757, 101.	4.5	148
6	FIRST SEASON MWA EOR POWER SPECTRUM RESULTS AT REDSHIFT 7. Astrophysical Journal, 2016, 833, 102.	4.5	147
7	Follow Up of GW170817 and Its Electromagnetic Counterpart by Australian-Led Observing Programmes. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	142
8	The Phase II Murchison Widefield Array: Design overview. Publications of the Astronomical Society of Australia, 2018, 35, .	3.4	140
9	Epoch of reionization window. II. Statistical methods for foreground wedge reduction. Physical Review D, 2014, 90, .	4.7	136
10	Deep multiredshift limits on Epoch of Reionization 21 $\hat{A}$ cm power spectra from four seasons of Murchison Widefield Array observations. Monthly Notices of the Royal Astronomical Society, 2020, 493, 4711-4727.	4.4	129
11	FOREGROUNDS IN WIDE-FIELD REDSHIFTED 21 cm POWER SPECTRA. Astrophysical Journal, 2015, 804, 14.	4.5	122
12	Source Finding in the Era of the SKA (Precursors): <sc>Aegean</sc> 2.0. Publications of the Astronomical Society of Australia, 2018, 35, .	3.4	119
13	The Low-Frequency Environment of the Murchison Widefield Array: Radio-Frequency Interference Analysis and Mitigation. Publications of the Astronomical Society of Australia, 2015, 32, .	3.4	107
14	Empirical covariance modeling for 21 $\hat{A}$ cm power spectrum estimation: A method demonstration and new limits from early Murchison Widefield Array 128-tile data. Physical Review D, 2015, 91, .	4.7	99
15	CHIPS: THE COSMOLOGICAL H I POWER SPECTRUM ESTIMATOR. Astrophysical Journal, 2016, 818, 139.	4.5	98
16	Improving the Epoch of Reionization Power Spectrum Results from Murchison Widefield Array Season 1 Observations. Astrophysical Journal, 2019, 884, 1.	4.5	92
17	First limits on the 21 $\hat{A}$ cm power spectrum during the Epoch of X-ray heating. Monthly Notices of the Royal Astronomical Society, 2016, 460, 4320-4347.	4.4	79
18	CONFIRMATION OF WIDE-FIELD SIGNATURES IN REDSHIFTED 21 cm POWER SPECTRA. Astrophysical Journal Letters, 2015, 807, L28.	8.3	73

#	ARTICLE	IF	CITATIONS
19	Limits on Fast Radio Bursts and other transient sources at 182 MHz using the Murchison Widefield Array. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 3506-3522.	4.4	70
20	First Season MWA Phase II Epoch of Reionization Power Spectrum Results at Redshift 7. <i>Astrophysical Journal</i> , 2019, 887, 141.	4.5	69
21	Parametrizing Epoch of Reionization foregrounds: a deep survey of low-frequency point-source spectra with the Murchison Widefield Array. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 1057-1070.	4.4	68
22	THE MURCHISON WIDEFIELD ARRAY 21 cm POWER SPECTRUM ANALYSIS METHODOLOGY. <i>Astrophysical Journal</i> , 2016, 825, 114.	4.5	67
23	THE IMPORTANCE OF WIDE-FIELD FOREGROUND REMOVAL FOR 21 cm COSMOLOGY: A DEMONSTRATION WITH EARLY MWA EPOCH OF REIONIZATION OBSERVATIONS. <i>Astrophysical Journal</i> , 2016, 819, 8.	4.5	65
24	Real-time imaging of density ducts between the plasmasphere and ionosphere. <i>Geophysical Research Letters</i> , 2015, 42, 3707-3714.	4.0	61
25	LOW-FREQUENCY OBSERVATIONS OF LINEARLY POLARIZED STRUCTURES IN THE INTERSTELLAR MEDIUM NEAR THE SOUTH GALACTIC POLE. <i>Astrophysical Journal</i> , 2016, 830, 38.	4.5	58
26	Fundamental Limitations on the Calibration of Redundant 21 cm Cosmology Instruments and Implications for HERA and the SKA. <i>Astrophysical Journal</i> , 2019, 875, 70.	4.5	57
27	A survey for transients and variables with the Murchison Widefield Array 32-tile prototype at 154 MHz. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 438, 352-367.	4.4	54
28	Dissecting a galaxy: mass distribution of 2237+0305. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 334, 621-630.	4.4	50
29	The 154 MHz radio sky observed by the Murchison Widefield Array: noise, confusion, and first source count analyses. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 3314-3325.	4.4	47
30	Characterization of the ionosphere above the Murchison Radio Observatory using the Murchison Widefield Array. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 471, 3974-3987.	4.4	46
31	A SEARCH FOR FAST RADIO BURSTS AT LOW FREQUENCIES WITH MURCHISON WIDEFIELD ARRAY HIGH TIME RESOLUTION IMAGING. <i>Astronomical Journal</i> , 2015, 150, 199.	4.7	45
32	The Challenges of Low-Frequency Radio Polarimetry: Lessons from the Murchison Widefield Array. <i>Publications of the Astronomical Society of Australia</i> , 2017, 34, .	3.4	45
33	No Low-frequency Emission from Extremely Bright Fast Radio Bursts. <i>Astrophysical Journal Letters</i> , 2018, 867, L12.	8.3	42
34	Exploring reionization and high- $z$ galaxy observables with recent multiredshift MWA upper limits on the 21-cm signal. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 500, 5322-5335.	4.4	42
35	Spectral Calibration Requirements of Radio Interferometers for Epoch of Reionisation Science with the SKA. <i>Publications of the Astronomical Society of Australia</i> , 2016, 33, .	3.4	41
36	Comparing Redundant and Sky-model-based Interferometric Calibration: A First Look with Phase II of the MWA. <i>Astrophysical Journal</i> , 2018, 863, 170.	4.5	41

#	ARTICLE	IF	CITATIONS
37	A SEARCH FOR FAST RADIO BURSTS ASSOCIATED WITH GAMMA-RAY BURSTS. <i>Astrophysical Journal</i> , 2014, 790, 63.	4.5	39
38	THE FIRST VERY LONG BASELINE INTERFEROMETRIC SETI EXPERIMENT. <i>Astronomical Journal</i> , 2012, 144, 38.	4.7	38
39	THE SPECTRAL VARIABILITY OF THE GHZ-PEAKED SPECTRUM RADIO SOURCE PKS 1718-649 AND A COMPARISON OF ABSORPTION MODELS. <i>Astronomical Journal</i> , 2015, 149, 74.	4.7	36
40	Exploring 21 cm-Ly $\pm$ Emitter Synergies for SKA. <i>Astrophysical Journal</i> , 2017, 836, 176.	4.5	35
41	Detection of Intraseasonal Oscillations in SMAP Salinity in the Bay of Bengal. <i>Geophysical Research Letters</i> , 2018, 45, 7057-7065.	4.0	32
42	Stars and dark matter in the spiral gravitational lens 2237+0305. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 401, 1540-1551.	4.4	31
43	PUMA: The Positional Update and Matching Algorithm. <i>Publications of the Astronomical Society of Australia</i> , 2017, 34, .	3.4	31
44	Power spectrum analysis of ionospheric fluctuations with the Murchison Widefield Array. <i>Radio Science</i> , 2015, 50, 574-597.	1.6	30
45	PROSPECTS FOR THE DETECTION OF FAST RADIO BURSTS WITH THE MURCHISON WIDEFIELD ARRAY. <i>Astrophysical Journal Letters</i> , 2013, 776, L16.	8.3	30
46	Science with the Murchison Widefield Array: Phase I results and Phase II opportunities. <i>Publications of the Astronomical Society of Australia</i> , 2019, 36, .	3.4	29
47	The Bias and Uncertainty of Redundant and Sky-based Calibration Under Realistic Sky and Telescope Conditions. <i>Astronomical Journal</i> , 2018, 156, 285.	4.7	28
48	A high reliability survey of discrete Epoch of Reionization foreground sources in the MWA EoR field. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 461, 4151-4175.	4.4	27
49	A search for variable and transient radio sources in the extended Chandra Deep Field South at 5.5 GHz. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 450, 4221-4232.	4.4	25
50	A High-Resolution Foreground Model for the MWA EoR1 Field: Model and Implications for EoR Power Spectrum Analysis. <i>Publications of the Astronomical Society of Australia</i> , 2017, 34, .	3.4	25
51	A new MWA limit on the 21 $\hat{A}$ cm power spectrum at redshifts $\hat{a}^{\sim}13\hat{a}^{\sim}17$ . <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 505, 4775-4790.	4.4	25
52	<i>In situ</i> measurement of MWA primary beam variation using ORBCOMM. <i>Publications of the Astronomical Society of Australia</i> , 2018, 35, .	3.4	24
53	Dual-Tracer PET Using Generalized Factor Analysis of Dynamic Sequences. <i>Molecular Imaging and Biology</i> , 2013, 15, 666-674.	2.6	23
54	Spectral Energy Distribution and Radio Halo of NGC 253 at Low Radio Frequencies. <i>Astrophysical Journal</i> , 2017, 838, 68.	4.5	23

#	ARTICLE	IF	CITATIONS
55	Calibration and 21-cm power spectrum estimation in the presence of antenna beam variations. Monthly Notices of the Royal Astronomical Society, 2020, 492, 2017-2028.	4.4	21
56	Quantitative simultaneous cardiac SPECT using MC <sup>2</sup> OSEM. Medical Physics, 2009, 36, 602-611.	3.0	20
57	Strategies for Finding Prompt Radio Counterparts to Gravitational Wave Transients with the Murchison Widefield Array. Publications of the Astronomical Society of Australia, 2016, 33, .	3.4	20
58	LIMITS ON FAST RADIO BURSTS FROM FOUR YEARS OF THE V-FASTR EXPERIMENT. Astrophysical Journal, 2016, 826, 223.	4.5	20
59	An Improved Statistical Point-source Foreground Model for the Epoch of Reionization. Astrophysical Journal, 2017, 845, 7.	4.5	20
60	Measuring the global 21-cm signal with the MWA-I: improved measurements of the Galactic synchrotron background using lunar occultation. Monthly Notices of the Royal Astronomical Society, 2018, 481, 5034-5045.	4.4	20
61	MURCHISON WIDEFIELD ARRAY OBSERVATIONS OF ANOMALOUS VARIABILITY: A SERENDIPITOUS NIGHT-TIME DETECTION OF INTERPLANETARY SCINTILLATION. Astrophysical Journal Letters, 2015, 809, L12.	8.3	19
62	A Serendipitous MWA Search for Narrowband Signals from $\hat{\nu}$ Oumuamua. Astrophysical Journal, 2018, 857, 11.	4.5	19
63	Gridded and direct Epoch of Reionisation bispectrum estimates using the Murchison Widefield Array. Publications of the Astronomical Society of Australia, 2019, 36, .	3.4	19
64	Comparison of Observing Modes for Statistical Estimation of the 21 cm Signal from the Epoch of Reionisation. Publications of the Astronomical Society of Australia, 2014, 31, .	3.4	17
65	Observations of Low-frequency Radio Emission from Millisecond Pulsars and Multipath Propagation in the Interstellar Medium. Astrophysical Journal, Supplement Series, 2018, 238, 1.	7.7	17
66	Assessment of Ionospheric Activity Tolerances for Epoch of Reionization Science with the Murchison Widefield Array. Astrophysical Journal, 2018, 867, 15.	4.5	17
67	Fast Transients at Cosmological Distances with the SKA. , 2015, , .		17
68	Spectral performance of SKA Log-periodic Antennas I: mitigating spectral artefacts in SKA1-LOW 21 $\hat{A}$ cm cosmology experiments. Monthly Notices of the Royal Astronomical Society, 2017, 469, 2662-2671.	4.4	16
69	DELAY SPECTRUM WITH PHASE-TRACKING ARRAYS: EXTRACTING THE H $\hat{i}$ POWER SPECTRUM FROM THE EPOCH OF REIONIZATION. Astrophysical Journal, 2016, 833, 213.	4.5	15
70	Exploring the evolution of reionization using a wavelet transform and the light cone effect. Monthly Notices of the Royal Astronomical Society, 2016, 461, 126-135.	4.4	15
71	The Engineering Development Array: A Low Frequency Radio Telescope Utilising SKA Precursor Technology. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	15
72	Limits on radio emission from meteors using the MWA. Monthly Notices of the Royal Astronomical Society, 2018, 477, 5167-5176.	4.4	15

#	ARTICLE	IF	CITATIONS
73	Epoch of reionization power spectrum limits from Murchison Widefield Array data targeted at EoR1 field. Monthly Notices of the Royal Astronomical Society, 2021, 508, 5954-5971.	4.4	14
74	SOURCE DETECTION IN INTERFEROMETRIC VISIBILITY DATA. I. FUNDAMENTAL ESTIMATION LIMITS. Astrophysical Journal, 2011, 731, 81.	4.5	12
75	A FRAMEWORK FOR INTERPRETING FAST RADIO TRANSIENTS SEARCH EXPERIMENTS: APPLICATION TO THE V-FASTR EXPERIMENT. Astrophysical Journal, 2013, 767, 4.	4.5	12
76	Survey parameters for detecting 21-cm-Ly $\alpha$ emitter cross-correlations with the Square Kilometre Array. Monthly Notices of the Royal Astronomical Society: Letters, 2018, 479, L129-L133.	3.3	12
77	The Effect of Baseline Layouts on the Epoch of Reionization Foreground Wedge: A Semianalytical Approach. Astrophysical Journal, 2018, 869, 25.	4.5	12
78	The All-Sky SignAl Short-Spacing INterferometer (ASSASSIN) â€“ I. Global-sky measurements with the Engineering Development Array-2. Monthly Notices of the Royal Astronomical Society, 2020, 499, 52-67.	4.4	12
79	The bispectrum and 21-cm foregrounds during the Epoch of Reionization. Monthly Notices of the Royal Astronomical Society, 2020, 501, 367-382.	4.4	12
80	Hunting for Radio Emission from the Intermittent Pulsar J1107-5907 at Low Frequencies. Astrophysical Journal, 2018, 869, 134.	4.5	11
81	Modelling and peeling extended sources with shapelets: A Fornax A case study. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	11
82	WIDE-FIELD VLBI OBSERVATIONS OF M31: A UNIQUE PROBE OF THE IONIZED INTERSTELLAR MEDIUM OF A NEARBY GALAXY. Astrophysical Journal, 2013, 768, 12.	4.5	10
83	Peering into the dark (ages) with low-frequency space interferometers. Experimental Astronomy, 2021, 51, 1641-1676.	3.7	10
84	Spectral performance of Square Kilometre Array Antennas â€“ II. Calibration performance. Monthly Notices of the Royal Astronomical Society, 2017, 470, 455-465.	4.4	9
85	The Impact of Realistic Foreground and Instrument Models on 21 cm Epoch of Reionization Experiments. Astrophysical Journal, 2020, 893, 118.	4.5	9
86	Building Models for Extended Radio Sources: Implications for Epoch of Reionisation Science. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	8
87	The impact of tandem redundant/sky-based calibration in MWA Phase II data analysis. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	8
88	Imaging the southern sky at 159 MHz using spherical harmonics with the engineering development array 2. Publications of the Astronomical Society of Australia, 2022, 39, .	3.4	8
89	A VOEvent-based automatic trigger system for the Murchison Widefield Array. Publications of the Astronomical Society of Australia, 2019, 36, .	3.4	7
90	Sequential and simultaneous dual-isotope brain SPECT: Comparison with PET for estimation and discrimination tasks in early Parkinson disease. Medical Physics, 2008, 35, 3343-3353.	3.0	6

#	ARTICLE	IF	CITATIONS
91	THE EFFECT OF INTERPLANETARY SCINTILLATION ON EPOCH OF REIONIZATION POWER SPECTRA. <i>Astrophysical Journal</i> , 2015, 814, 27.	4.5	6
92	A High Time-resolution Study of the Millisecond Pulsar J2241+5236 at Frequencies Below 300 MHz. <i>Astrophysical Journal</i> , 2019, 882, 133.	4.5	6
93	PERFORMANCE OF A NOVEL FAST TRANSIENTS DETECTION SYSTEM. <i>Astrophysical Journal, Supplement Series</i> , 2013, 205, 4.	7.7	5
94	The MWA long baseline Epoch of reionisation survey. Improved source catalogue for the EoR 0 field. <i>Publications of the Astronomical Society of Australia</i> , 2021, 38, .	3.4	5
95	System design and calibration of SITARA—a global 21 cm short spacing interferometer prototype. <i>Publications of the Astronomical Society of Australia</i> , 2022, 39, .	3.4	5
96	Robust statistics towards detection of the 21cm signal from the Epoch of Reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 5766-5784.	4.4	4
97	Science with the Murchison Widefield Array: Phase I results and Phase II opportunities — Corrigendum. <i>Publications of the Astronomical Society of Australia</i> , 2020, 37, .	3.4	4
98	A broadband radio view of transient jet ejecta in the black hole candidate X-ray binary MAXI J1535+571. <i>Publications of the Astronomical Society of Australia</i> , 2021, 38, .	3.4	4
99	Collapsed and Extended Cold Dark Matter Halos in Softened Body Gravity. <i>Astrophysical Journal</i> , 2005, 618, 38-45.	4.5	3
100	4D numerical observer for lesion detection in respiratory gated PET. <i>Medical Physics</i> , 2014, 41, 102504.	3.0	3
101	A new angle for probing field-aligned irregularities with the Murchison Widefield Array. <i>Radio Science</i> , 2016, 51, 659-679.	1.6	3
102	Study of systematics effects on the cross power spectrum of 21cm line and cosmic microwave background using Murchison Widefield Array data. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 483, 2697-2711.	4.4	3
103	Constraining the 21cm brightness temperature of the IGM at $z = 6.6$ around LAEs with the murchison widefield array. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 772-780.	4.4	3
104	Simulations of ionospheric refraction on radio interferometric data. <i>Publications of the Astronomical Society of Australia</i> , 2021, 38, .	3.4	3
105	Status of 21 cm Interferometric Experiments. , 0, , .		3
106	A Clustered Extragalactic Foreground Model for the EoR. <i>Proceedings of the International Astronomical Union</i> , 2017, 12, 199-202.	0.0	2
107	Investigating the contribution of extended radio sources to the Epoch of Reionization power spectrum. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 514, 790-805.	4.4	2
108	Comparison of brain pet and sequential and simultaneous dual-isotope spect for estimation tasks in normal and parkinson subjects. , 2007, , .		1

#	ARTICLE	IF	CITATIONS
109	The Square Kilometre Array Epoch of Reionisation and Cosmic Dawn Experiment. Proceedings of the International Astronomical Union, 2017, 12, 92-97.	0.0	1
110	Impact of station far sidelobes on EoR/CD power spectra. Journal of Astronomical Telescopes, Instruments, and Systems, 2021, 8, .	1.8	1
111	Determining the Properties of Galaxy 2237+0305 using Gravitational Lensing. Symposium - International Astronomical Union, 2004, 220, 109-114.	0.1	0
112	Comparison of simultaneous and sequential SPECT imaging for discrimination tasks in assessment of cardiac defects. Physics in Medicine and Biology, 2010, 55, 6897-6910.	3.0	0
113	Source Detection with Interferometric Datasets. Proceedings of the International Astronomical Union, 2011, 7, 414-416.	0.0	0
114	Waves in the sky: Probing the ionosphere with the Murchison Widefield Array. , 2015, , .		0
115	Impact of station size on calibration of SKA-low. , 2015, , .		0
116	GRAVITATIONAL LENSING: COSMOLOGICAL MEASURES. , 2005, , .		0
117	Probing the Epoch of Reionisation with the MWA. , 2019, , .		0
118	Multi-system All-sky Spherical Harmonic Transit Interferometry. , 2022, , .		0