Cathryn M Trott

List of Publications by Year
in descending order

118	7,062	94433	58581
papers	citations	37 h-index	82 g-index

119	119	119	9451
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	System design and calibration of SITARAâ€"a global 21 cm short spacing interferometer prototype. Publications of the Astronomical Society of Australia, 2022, 39, .	3.4	5
2	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
3	Investigating the contribution of extended radio sources to the Epoch of Reionization power spectrum. Monthly Notices of the Royal Astronomical Society, 2022, 514, 790-805.	4.4	2
4	Multi-system All-sky Spherical Harmonic Transit Interferometry. , 2022, , .		0
5	A new MWA limit on the 21Âcm power spectrum at redshifts âˆ¼13â€"17. Monthly Notices of the Royal Astronomical Society, 2021, 505, 4775-4790.	4.4	25
6	Constraining the 21â€‰cm brightness temperature of the IGM at z = 6.6 around LAEs with the murchison widefield array. Monthly Notices of the Royal Astronomical Society, 2021, 507, 772-780.	4.4	3
7	Peering into the dark (ages) with low-frequency space interferometers. Experimental Astronomy, 2021, 51, 1641-1676.	3.7	10
8	Simulations of ionospheric refraction on radio interferometric data. Publications of the Astronomical Society of Australia, 2021, 38, .	3.4	3
9	A broadband radio view of transient jet ejecta in the black hole candidate X-ray binary MAXI J1535â€"571. Publications of the Astronomical Society of Australia, 2021, 38, .	3.4	4
10	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
11	The MWA long baseline Epoch of reionisation surveyâ€"I. Improved source catalogue for the EoR 0 field. Publications of the Astronomical Society of Australia, 2021, 38, .	3.4	5
12	Impact of station far sidelobes on EoR/CD power spectra. Journal of Astronomical Telescopes, Instruments, and Systems, 2021, 8, .	1.8	1
13	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
14	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
15	Modelling and peeling extended sources with shapelets: A Fornax A case study. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	11
16	Deep multiredshift limits on Epoch of Reionization 21Âcm power spectra from four seasons of Murchison Widefield Array observations. Monthly Notices of the Royal Astronomical Society, 2020, 493, 4711-4727.	4.4	129
17	Science with the Murchison Widefield Array: Phase I results and Phase II opportunities â€" Corrigendum. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	4
18	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

#	Article	IF	Citations
19	Exploring reionization and high-z galaxy observables with recent multiredshift MWA upper limits on the 21-cm signal. Monthly Notices of the Royal Astronomical Society, 2020, 500, 5322-5335.	4.4	42
20	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
21	The Impact of Realistic Foreground and Instrument Models on 21 cm Epoch of Reionization Experiments. Astrophysical Journal, 2020, 893, 118.	4.5	9
22	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
23	Improving the Epoch of Reionization Power Spectrum Results from Murchison Widefield Array Season 1 Observations. Astrophysical Journal, 2019, 884, 1.	4.5	92
24	Robust statistics towards detection of the 21Âcm signal from the Epoch of Reionization. Monthly Notices of the Royal Astronomical Society, 2019, 486, 5766-5784.	4.4	4
25	Fundamental Limitations on the Calibration of Redundant 21 cm Cosmology Instruments and Implications for HERA and the SKA. Astrophysical Journal, 2019, 875, 70.	4.5	57
26	Study of systematics effects on the cross power spectrum of 21â€‰cm line and cosmic microwave background using Murchison Widefield Array data. Monthly Notices of the Royal Astronomical Society, 2019, 483, 2697-2711.	4.4	3
27	A VOEvent-based automatic trigger system for the Murchison Widefield Array. Publications of the Astronomical Society of Australia, 2019, 36, .	3.4	7
28	First Season MWA Phase II Epoch of Reionization Power Spectrum Results at Redshift 7. Astrophysical Journal, 2019, 887, 141.	4.5	69
29	Science with the Murchison Widefield Array: Phase I results and Phase II opportunities. Publications of the Astronomical Society of Australia, 2019, 36, .	3.4	29
30	A High Time-resolution Study of the Millisecond Pulsar J2241â’5236 at Frequencies Below 300 MHz. Astrophysical Journal, 2019, 882, 133.	4.5	6
31	Probing the Epoch or Reionisation with the MWA. , 2019, , .		0
32	Limits on radio emission from meteors using the MWA. Monthly Notices of the Royal Astronomical Society, 2018, 477, 5167-5176.	4.4	15
33	A Serendipitous MWA Search for Narrowband Signals from â€˜Oumuamua. Astrophysical Journal, 2018, 857, 11.	4.5	19
34	Source Finding in the Era of the SKA (Precursors): <scp>Aegean</scp> 2.0. Publications of the Astronomical Society of Australia, 2018, 35, .	3.4	119
35	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
36	Hunting for Radio Emission from the Intermittent Pulsar J1107-5907 at Low Frequencies. Astrophysical Journal, 2018, 869, 134.	4.5	11

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37	Survey parameters for detecting 21-cm-LyÂÎ± emitter cross-correlations with the Square Kilometre Array. Monthly Notices of the Royal Astronomical Society: Letters, 2018, 479, L129-L133.	3.3	12
38	The Phase II Murchison Widefield Array: Design overview. Publications of the Astronomical Society of Australia, 2018, 35, .	3.4	140
39	Assessment of Ionospheric Activity Tolerances for Epoch of Reionization Science with the Murchison Widefield Array. Astrophysical Journal, 2018, 867, 15.	4.5	17
40	The Bias and Uncertainty of Redundant and Sky-based Calibration Under Realistic Sky and Telescope Conditions. Astronomical Journal, 2018, 156, 285.	4.7	28
41	In situ measurement of MWA primary beam variation using ORBCOMM. Publications of the Astronomical Society of Australia, 2018, 35, .	3.4	24
42	The Effect of Baseline Layouts on the Epoch of Reionization Foreground Wedge: A Semianalytical Approach. Astrophysical Journal, 2018, 869, 25.	4.5	12
43	Comparing Redundant and Sky-model-based Interferometric Calibration: A First Look with Phase II of the MWA. Astrophysical Journal, 2018, 863, 170.	4.5	41
44	No Low-frequency Emission from Extremely Bright Fast Radio Bursts. Astrophysical Journal Letters, 2018, 867, L12.	8.3	42
45	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
46	Detection of Intraseasonal Oscillations in SMAP Salinity in the Bay of Bengal. Geophysical Research Letters, 2018, 45, 7057-7065.	4.0	32
47	PUMA: The Positional Update and Matching Algorithm. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	31
48	Spectral Energy Distribution and Radio Halo of NGC 253 at Low Radio Frequencies. Astrophysical Journal, 2017, 838, 68.	4.5	23
49	Spectral performance of SKA Log-periodic Antennas I: mitigating spectral artefacts in SKA1-LOW 21Âcm cosmology experiments. Monthly Notices of the Royal Astronomical Society, 2017, 469, 2662-2671.	4.4	16
50	Multi-messenger Observations of a Binary Neutron Star Merger*. Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
51	A High-Resolution Foreground Model for the MWA EoR1 Field: Model and Implications for EoR Power Spectrum Analysis. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	25
52	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
53	The Challenges of Low-Frequency Radio Polarimetry: Lessons from the Murchison Widefield Array. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	45
54	An Improved Statistical Point-source Foreground Model for the Epoch of Reionization. Astrophysical Journal, 2017, 845, 7.	4.5	20

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55	Building Models for Extended Radio Sources: Implications for Epoch of Reionisation Science. Publications of the Astronomical Society of Australia, 2017, 34, .	3.4	8
56	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
57	Exploring 21 cm-LyÎ± Emitter Synergies for SKA. Astrophysical Journal, 2017, 836, 176.	4.5	35
58	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
59	Characterization of the ionosphere above the Murchison Radio Observatory using the Murchison Widefield Array. Monthly Notices of the Royal Astronomical Society, 2017, 471, 3974-3987.	4.4	46
60	A Clustered Extragalactic Foreground Model for the EoR. Proceedings of the International Astronomical Union, 2017, 12, 199-202.	0.0	2
61	The Square Kilometre Array Epoch of Reionisation and Cosmic Dawn Experiment. Proceedings of the International Astronomical Union, 2017, 12, 92-97.	0.0	1
62	LOW-FREQUENCY OBSERVATIONS OF LINEARLY POLARIZED STRUCTURES IN THE INTERSTELLAR MEDIUM NEAR THE SOUTH GALACTIC POLE. Astrophysical Journal, 2016, 830, 38.	4.5	58
63	DELAY SPECTRUM WITH PHASE-TRACKING ARRAYS: EXTRACTING THE H i POWER SPECTRUM FROM THE EPOCH OF REIONIZATION. Astrophysical Journal, 2016, 833, 213.	4.5	15
64	A new angle for probing fieldâ€aligned irregularities with the Murchison Widefield Array. Radio Science, 2016, 51, 659-679.	1.6	3
65	Spectral Calibration Requirements of Radio Interferometers for Epoch of Reionisation Science with the SKA. Publications of the Astronomical Society of Australia, 2016, 33, .	3.4	41
66	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
67	FIRST SEASON MWA EOR POWER SPECTRUM RESULTS AT REDSHIFT 7. Astrophysical Journal, 2016, 833, 102.	4.5	147
68	THE IMPORTANCE OF WIDE-FIELD FOREGROUND REMOVAL FOR 21 cm COSMOLOGY: A DEMONSTRATION WITH EARLY MWA EPOCH OF REIONIZATION OBSERVATIONS. Astrophysical Journal, 2016, 819, 8.	4.5	65
69	A high reliability survey of discrete Epoch of Reionization foreground sources in the MWA EoR0 field. Monthly Notices of the Royal Astronomical Society, 2016, 461, 4151-4175.	4.4	27
70	LIMITS ON FAST RADIO BURSTS FROM FOUR YEARS OF THE V-FASTR EXPERIMENT. Astrophysical Journal, 2016, 826, 223.	4.5	20
71	THE MURCHISON WIDEFIELD ARRAY 21 cm POWER SPECTRUM ANALYSIS METHODOLOGY. Astrophysical Journal, 2016, 825, 114.	4.5	67
72	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

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73	Limits on Fast Radio Bursts and other transient sources at 182ÂMHz using the Murchison Widefield Array. Monthly Notices of the Royal Astronomical Society, 2016, 458, 3506-3522.	4.4	70
74	The 154ÂMHz radio sky observed by the Murchison Widefield Array: noise, confusion, and first source count analyses. Monthly Notices of the Royal Astronomical Society, 2016, 459, 3314-3325.	4.4	47
75	First limits on the 21Âcm power spectrum during the Epoch of X-ray heating. Monthly Notices of the Royal Astronomical Society, 2016, 460, 4320-4347.	4.4	79
76	Parametrizing Epoch of Reionization foregrounds: a deep survey of low-frequency point-source spectra with the Murchison Widefield Array. Monthly Notices of the Royal Astronomical Society, 2016, 458, 1057-1070.	4.4	68
77	CHIPS: THE COSMOLOGICAL H i POWER SPECTRUM ESTIMATOR. Astrophysical Journal, 2016, 818, 139.	4.5	98
78	GLEAM: The GaLactic and Extragalactic All-Sky MWA Survey. Publications of the Astronomical Society of Australia, 2015, 32, .	3.4	221
79	MURCHISON WIDEFIELD ARRAY OBSERVATIONS OF ANOMALOUS VARIABILITY: A SERENDIPITOUS NIGHT-TIME DETECTION OF INTERPLANETARY SCINTILLATION. Astrophysical Journal Letters, 2015, 809, L12.	8.3	19
80	Power spectrum analysis of ionospheric fluctuations with the Murchison Widefield Array. Radio Science, 2015, 50, 574-597.	1.6	30
81	Empirical covariance modeling for 21Âcm 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
82	THE EFFECT OF INTERPLANETARY SCINTILLATION ON EPOCH OF REIONIZATION POWER SPECTRA. Astrophysical Journal, 2015, 814, 27.	4.5	6
83	A SEARCH FOR FAST RADIO BURSTS AT LOW FREQUENCIES WITH MURCHISON WIDEFIELD ARRAY HIGH TIME RESOLUTION IMAGING. Astronomical Journal, 2015, 150, 199.	4.7	45
84	Waves in the sky: Probing the ionosphere with the Murchison Widefield Array. , 2015, , .		0
85	Realâ€time imaging of density ducts between the plasmasphere and ionosphere. Geophysical Research Letters, 2015, 42, 3707-3714.	4.0	61
86	A search for variable and transient radio sources in the extended Chandra Deep Field South at 5.5 GHz. Monthly Notices of the Royal Astronomical Society, 2015, 450, 4221-4232.	4.4	25
87	Impact of station size on calibration of SKA-low. , 2015, , .		0
88	THE SPECTRAL VARIABILITY OF THE GHZ-PEAKED SPECTRUM RADIO SOURCE PKS 1718-649 AND A COMPARISON OF ABSORPTION MODELS. Astronomical Journal, 2015, 149, 74.	4.7	36
89	CONFIRMATION OF WIDE-FIELD SIGNATURES IN REDSHIFTED 21 cm POWER SPECTRA. Astrophysical Journal Letters, 2015, 807, L28.	8.3	73
90	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

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91	FOREGROUNDS IN WIDE-FIELD REDSHIFTED 21 cm POWER SPECTRA. Astrophysical Journal, 2015, 804, 14.	4.5	122
92	Fast Transients at Cosmological Distances with the SKA. , 2015, , .		17
93	4D numerical observer for lesion detection in respiratoryâ€gated PET. Medical Physics, 2014, 41, 102504.	3.0	3
94	Epoch of reionization window. II. Statistical methods for foreground wedge reduction. Physical Review D, 2014, 90, .	4.7	136
95	Epoch of reionization window. I. Mathematical formalism. Physical Review D, 2014, 90, .	4.7	167
96	A SEARCH FOR FAST RADIO BURSTS ASSOCIATED WITH GAMMA-RAY BURSTS. Astrophysical Journal, 2014, 790, 63.	4.5	39
97	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
98	A survey for transients and variables with the Murchison Widefield Array 32-tile prototype at 154 MHz. Monthly Notices of the Royal Astronomical Society, 2014, 438, 352-367.	4.4	54
99	Dual-Tracer PET Using Generalized Factor Analysis of Dynamic Sequences. Molecular Imaging and Biology, 2013, 15, 666-674.	2.6	23
100	A FRAMEWORK FOR INTERPRETING FAST RADIO TRANSIENTS SEARCH EXPERIMENTS: APPLICATION TO THE V-FASTR EXPERIMENT. Astrophysical Journal, 2013, 767, 4.	4.5	12
101	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
102	PERFORMANCE OF A NOVEL FAST TRANSIENTS DETECTION SYSTEM. Astrophysical Journal, Supplement Series, 2013, 205, 4.	7.7	5
103	PROSPECTS FOR THE DETECTION OF FAST RADIO BURSTS WITH THE MURCHISON WIDEFIELD ARRAY. Astrophysical Journal Letters, 2013, 776, L16.	8.3	30
104	THE FIRST VERY LONG BASELINE INTERFEROMETRIC SETI EXPERIMENT. Astronomical Journal, 2012, 144, 38.	4.7	38
105	THE IMPACT OF POINT-SOURCE SUBTRACTION RESIDUALS ON 21 cm EPOCH OF REIONIZATION ESTIMATION. Astrophysical Journal, 2012, 757, 101.	4.5	148
106	Source Detection with Interferometric Datasets. Proceedings of the International Astronomical Union, 2011, 7, 414-416.	0.0	0
107	SOURCE DETECTION IN INTERFEROMETRIC VISIBILITY DATA. I. FUNDAMENTAL ESTIMATION LIMITS. Astrophysical Journal, 2011, 731, 81.	4.5	12
108	Improvement in Lesion Detection with Whole-Body Oncologic Time-of-Flight PET. Journal of Nuclear Medicine, 2011, 52, 347-353.	5.0	167

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109	Stars and dark matter in the spiral gravitational lens 2237+0305. Monthly Notices of the Royal Astronomical Society, 2010, 401, 1540-1551.	4.4	31
110	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
111	Quantitative simultaneous cardiac SPECT using MCâ€JOSEM. Medical Physics, 2009, 36, 602-611.	3.0	20
112	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
113	Comparison of brain pet and sequential and simultaneous dual-isotope spect for estimation tasks in normal and parkinson subjects. , 2007, , .		1
114	Collapsed and Extended Cold Dark Matter Halos in SoftenedNâ€Body Gravity. Astrophysical Journal, 2005, 618, 38-45.	4.5	3
115	GRAVITATIONAL LENSING: COSMOLOGICAL MEASURES. , 2005, , .		0
116	Determining the Properties of Galaxy 2237+0305 using Gravitational Lensing. Symposium - International Astronomical Union, 2004, 220, 109-114.	0.1	0
117	Dissecting a galaxy: mass distribution of 2237+0305. Monthly Notices of the Royal Astronomical Society, 2002, 334, 621-630.	4.4	50
118	Status of 21 cm Interferometric Experiments. , 0, , .		3