

Andrei Mesinger

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8795952/publications.pdf>

Version: 2024-02-01

125
papers

8,004
citations

36299

51
h-index

51602

86
g-index

125
all docs

125
docs citations

125
times ranked

2754
citing authors

#	ARTICLE	IF	CITATIONS
1	Automated Detection of Antenna Malfunctions in Large N Interferometers: A Case Study With the Hydrogen Epoch of Reionization Array. <i>Radio Science</i> , 2022, 57, .	1.6	2
2	HERA Phase I Limits on the Cosmic 21 cm Signal: Constraints on Astrophysics and Cosmology during the Epoch of Reionization. <i>Astrophysical Journal</i> , 2022, 924, 51.	4.5	63
3	Validation of the HERA Phase I Epoch of Reionization 21 cm Power Spectrum Software Pipeline. <i>Astrophysical Journal</i> , 2022, 924, 85.	4.5	11
4	The impact of the first galaxies on cosmic dawn and reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 511, 3657-3681.	4.4	47
5	Epoch of reionization parameter estimation with the 21-cm bispectrum. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 510, 3838-3848.	4.4	17
6	First Results from HERA Phase I: Upper Limits on the Epoch of Reionization 21 cm Power Spectrum. <i>Astrophysical Journal</i> , 2022, 925, 221.	4.5	82
7	IGM damping wing constraints on reionization from covariance reconstruction of two $z \sim 7$ QSOs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 5390-5403.	4.4	30
8	Hydrogen reionization ends by $z = 5.3$: Lyman- α optical depth measured by the XQR-30 sample. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 514, 55-76.	4.4	82
9	The 21-cm signal from the cosmic dawn: metallicity dependence of high-mass X-ray binaries. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 513, 5097-5108.	4.4	7
10	Elevated Hot Gas and High-mass X-Ray Binary Emission in Low-metallicity Galaxies: Implications for Nebular Ionization and Intergalactic Medium Heating in the Early Universe. <i>Astrophysical Journal</i> , 2022, 930, 135.	4.5	13
11	Measuring the Density Fields around Bright Quasars at $z \sim 6$ with XQR-30 Spectra. <i>Astrophysical Journal</i> , 2022, 931, 29.	4.5	12
12	A galaxy-free phenomenological model for the 21-cm power spectrum during reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 514, 2010-2030.	4.4	5
13	Reionization and galaxy inference from the high-redshift Ly α forest. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 506, 2390-2407.	4.4	61
14	Effects of model incompleteness on the drift-scan calibration of radio telescopes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 506, 4578-4592.	4.4	2
15	Constraints on warm dark matter from UV luminosity functions of high- z galaxies with Bayesian model comparison. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 3046-3056.	4.4	20
16	Methods of Error Estimation for Delay Power Spectra in 21 cm Cosmology. <i>Astrophysical Journal, Supplement Series</i> , 2021, 255, 26.	7.7	9
17	Peering into the dark (ages) with low-frequency space interferometers. <i>Experimental Astronomy</i> , 2021, 51, 1641-1676.	3.7	10
18	A tale of two sites – II. Inferring the properties of minihalo-hosted galaxies with upcoming 21-cm interferometers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 501, 4748-4758.	4.4	26

#	ARTICLE	IF	CITATIONS
19	Machine learning astrophysics from 21-cm lightcones: impact of network architectures and signal contamination. Monthly Notices of the Royal Astronomical Society, 2021, 509, 3852-3867.	4.4	22
20	The spin-temperature dependence of the 21-cm LAE cross-correlation. Monthly Notices of the Royal Astronomical Society, 2020, 496, 581-589.	4.4	14
21	Minimum size of 21-cm simulations. Monthly Notices of the Royal Astronomical Society, 2020, 495, 2354-2362.	4.4	25
22	The impact of scatter in the galaxy UV luminosity to halo mass relation on Ly α visibility during the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3602-3613.	4.4	42
23	A tale of two sites – I. Inferring the properties of minihalo-hosted galaxies from current observations. Monthly Notices of the Royal Astronomical Society, 2020, 495, 123-140.	4.4	42
24	Detection of cosmic structures using the bispectrum phase. II. First results from application to cosmic reionization using the Hydrogen Epoch of Reionization Array. Physical Review D, 2020, 102, .	4.7	17
25	Reionization inference from the CMB optical depth and E-mode polarization power spectra. Monthly Notices of the Royal Astronomical Society, 2020, 499, 550-558.	4.4	27
26	Foreground modelling via Gaussian process regression: an application to HERA data. Monthly Notices of the Royal Astronomical Society, 2020, 495, 2813-2826.	4.4	19
27	Bubble mapping with the Square Kilometre Array – I. Detecting galaxies with Euclid, JWST, WFIRST, and ELT within ionized bubbles in the intergalactic medium at $z \gtrsim 6$. Monthly Notices of the Royal Astronomical Society, 2020, 493, 855-870.	4.4	8
28	Absolute Calibration Strategies for the Hydrogen Epoch of Reionization Array and Their Impact on the 21 cm Power Spectrum. Astrophysical Journal, 2020, 890, 122.	4.5	35
29	Mitigating Internal Instrument Coupling for 21 cm Cosmology. II. A Method Demonstration with the Hydrogen Epoch of Reionization Array. Astrophysical Journal, 2020, 888, 70.	4.5	41
30	Properties of reionization-era galaxies from JWST luminosity functions and 21-cm interferometry. Monthly Notices of the Royal Astronomical Society, 2020, 491, 3891-3899.	4.4	24
31	Redundant-baseline calibration of the hydrogen epoch of reionization array. Monthly Notices of the Royal Astronomical Society, 2020, 499, 5840-5861.	4.4	33
32	Understanding the HERA Phase I receiver system with simulations and its impact on the detectability of the EoR delay power spectrum. Monthly Notices of the Royal Astronomical Society, 2020, 500, 1232-1242.	4.4	29
33	Interpreting LOFAR 21-cm signal upper limits at $z \sim 9.1$ in the context of high- z galaxy and reionization observations. Monthly Notices of the Royal Astronomical Society, 2020, 501, 1-13.	4.4	46
34	21cmFAST v3: A Python-integrated C code for generating 3D realizations of the cosmic 21cm signal.. Journal of Open Source Software, 2020, 5, 2582.	4.6	58
35	Measuring HERA's Primary Beam in Situ: Methodology and First Results. Astrophysical Journal, 2020, 897, 5.	4.5	8
36	Hydrodynamic Response of the Intergalactic Medium to Reionization. Astrophysical Journal, 2020, 898, 149.	4.5	33

#	ARTICLE	IF	CITATIONS
37	Optimizing sparse RFI prediction using deep learning. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2605-2615.	4.4	29
38	Dark-ages reionization and galaxy formation simulation â€“ XVI. The thermal memory of reionization. Monthly Notices of the Royal Astronomical Society, 2019, 489, 977-992.	4.4	4
39	The HERA-19 Commissioning Array: Direction-dependent Effects. Astrophysical Journal, 2019, 882, 58.	4.5	20
40	Dark-ages Reionization and Galaxy Formation Simulation â€“ XV. Stellar evolution and feedback in dwarf galaxies at high redshift. Monthly Notices of the Royal Astronomical Society, 2019, 487, 1946-1963.	4.4	3
41	Inferring the astrophysics of reionization and cosmic dawn from galaxy luminosity functions and the 21-cm signal. Monthly Notices of the Royal Astronomical Society, 2019, 484, 933-949.	4.4	152
42	Constraints on reionization from the $\langle i \rangle z \langle /i \rangle = 7.5$ QSO ULASJ1342+0928. Monthly Notices of the Royal Astronomical Society, 2019, 484, 5094-5101.	4.4	97
43	Beacons into the Cosmic Dark Ages: Boosted Transmission of Ly α from UV Bright Galaxies at $z \approx 7$. Astrophysical Journal Letters, 2018, 857, L11.	8.3	68
44	21CMC with a 3D light-cone: the impact of the co-evolution approximation on the astrophysics of reionization and cosmic dawn. Monthly Notices of the Royal Astronomical Society, 2018, 477, 3217-3229.	4.4	63
45	Dark-ages Reionization and Galaxy Formation Simulation â€“ XIV. Gas accretion, cooling, and star formation in dwarf galaxies at high redshift. Monthly Notices of the Royal Astronomical Society, 2018, 477, 1318-1335.	4.4	4
46	Results from EDGES High-band. II. Constraints on Parameters of Early Galaxies. Astrophysical Journal, 2018, 863, 11.	4.5	44
47	The Universe Is Reionizing at $z \approx 14$: Bayesian Inference of the IGM Neutral Fraction Using Ly α Emission from Galaxies. Astrophysical Journal, 2018, 856, 2.	4.5	224
48	The hydrogen epoch of reionization array dish III: measuring chromaticity of prototype element with reflectometry. Experimental Astronomy, 2018, 45, 177-199.	3.7	19
49	Ly α emission-line reconstruction for high- $\langle i \rangle z \langle /i \rangle$ QSOs. Monthly Notices of the Royal Astronomical Society, 2017, 466, 1814-1838.	4.4	77
50	Emulating Simulations of Cosmic Dawn for 21 cm Power Spectrum Constraints on Cosmology, Reionization, and X-Ray Heating. Astrophysical Journal, 2017, 848, 23.	4.5	89
51	High-mass X-ray binaries and the cosmic 21-cm signal: impact of host galaxy absorption. Monthly Notices of the Royal Astronomical Society, 2017, 469, 1166-1174.	4.4	66
52	Dark-ages reionization and galaxy-formation simulation â€“ VII. The sizes of high-redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 465, 3134-3142.	4.4	19
53	Dark-ages reionization and galaxy formation simulation â€“ XII. Bubbles at dawn. Monthly Notices of the Royal Astronomical Society, 2017, 472, 1324-1335.	4.4	10
54	Dark-ages reionization and galaxy formation simulation â€“ XI. Clustering and halo masses of high redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 472, 1995-2008.	4.4	10

#	ARTICLE	IF	CITATIONS
55	Simultaneously constraining the astrophysics of reionization and the epoch of heating with 21CMMC. Monthly Notices of the Royal Astronomical Society, 2017, 472, 2651-2669.	4.4	98
56	Dark-ages reionization and galaxy formation simulation " X. The small contribution of quasars to reionization. Monthly Notices of the Royal Astronomical Society, 2017, 472, 2009-2027.	4.4	58
57	Dark-ages reionization and galaxy formation simulation " XIII. AGN quenching of high-redshift star formation in ZF-COSMOS-20115. Monthly Notices of the Royal Astronomical Society, 2017, 471, 4345-4354.	4.4	13
58	Reionization and Cosmic Dawn: theory and simulations. Proceedings of the International Astronomical Union, 2017, 12, 3-11.	0.0	3
59	Hydrogen Epoch of Reionization Array (HERA). Publications of the Astronomical Society of the Pacific, 2017, 129, 045001.	3.1	448
60	Simultaneously constraining the astrophysics of reionisation and the epoch of heating with 21CMMC. Proceedings of the International Astronomical Union, 2017, 12, 18-21.	0.0	5
61	The global history of reionization. Monthly Notices of the Royal Astronomical Society, 2017, 465, 4838-4852.	4.4	82
62	Dark-ages reionization and galaxy formation simulation " IX. Economics of reionizing galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 470, 3300-3315.	4.4	4
63	Constraints on the temperature of the intergalactic medium at $z = 8.4$ with 21-cm observations. Monthly Notices of the Royal Astronomical Society, 2016, 455, 4295-4300.	4.4	29
64	Dark-ages Reionization and Galaxy formation simulation " I. The dynamical lives of high-redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2016, 459, 3025-3039.	4.4	45
65	The Evolution Of 21 \hat{A} cm Structure (EOS): public, large-scale simulations of Cosmic Dawn and reionization. Monthly Notices of the Royal Astronomical Society, 2016, 459, 2342-2353.	4.4	84
66	Upper limits on the 21 \hat{A} cm power spectrum at $z = 5.9$ from quasar absorption line spectroscopy. Monthly Notices of the Royal Astronomical Society: Letters, 2016, 463, L56-L60.	3.3	8
67	Dark-ages reionization and galaxy-formation simulation " VI. The origins and fate of the highest known redshift galaxy. Monthly Notices of the Royal Astronomical Society, 2016, 463, 3556-3562.	4.4	15
68	Dark-ages reionization and galaxy formation simulation " IV. UV luminosity functions of high-redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2016, 462, 235-249.	4.4	60
69	Dark-ages reionization and galaxy formation simulation " III. Modelling galaxy formation and the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2016, 462, 250-276.	4.4	99
70	Dark-ages reionization and galaxy formation simulation V: morphology and statistical signatures of reionization. Monthly Notices of the Royal Astronomical Society, 2016, 462, 804-817.	4.4	23
71	Cross-correlation of the cosmic 21-cm signal and Lyman \hat{I} ± emitters during reionization. Monthly Notices of the Royal Astronomical Society, 2016, 459, 2741-2750.	4.4	31
72	Dark-ages reionization and galaxy formation simulation " II. Spin and concentration parameters for dark matter haloes during the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2016, 459, 2106-2117.	4.4	26

#	ARTICLE	IF	CITATIONS
73	Constraining high-redshift X-ray sources with next generation 21-cm power spectrum measurements. Monthly Notices of the Royal Astronomical Society, 2016, 458, 2710-2724.	4.4	41
74	PAPER-64 CONSTRAINTS ON REIONIZATION. II. THE TEMPERATURE OF THE $z \approx 8.4$ INTERGALACTIC MEDIUM. Astrophysical Journal, 2015, 809, 62.	4.5	79
75	The clustering of Lyman α emitters at $z \approx 7$: implications for reionization and host halo masses. Monthly Notices of the Royal Astronomical Society, 2015, 453, 1843-1854.	4.4	67
76	21CMMC: an MCMC analysis tool enabling astrophysical parameter studies of the cosmic 21-cm signal. Monthly Notices of the Royal Astronomical Society, 2015, 449, 4246-4263.	4.4	181
77	EARLY GALAXY FORMATION IN WARM DARK MATTER COSMOLOGIES. Astrophysical Journal, 2015, 806, 67.	4.5	52
78	Can the intergalactic medium cause a rapid drop in Ly α emission at $z \approx 6$? Monthly Notices of the Royal Astronomical Society, 2015, 446, 566-577.	4.4	148
79	Model-independent evidence in favour of an end to reionization by $z \approx 6$. Monthly Notices of the Royal Astronomical Society, 2015, 447, 499-505.	4.4	351
80	HI tomographic imaging of the Cosmic Dawn and Epoch of Reionization with SKA. , 2015, , .		28
81	The imprint of warm dark matter on the cosmological 21-cm signal. Monthly Notices of the Royal Astronomical Society, 2014, 438, 2664-2671.	4.4	84
82	Evolution in the escape fraction of ionizing photons and the decline in strong Ly α emission from $z > 6$ galaxies. Monthly Notices of the Royal Astronomical Society, 2014, 440, 3309-3316.	4.4	67
83	Semi-numeric simulations of helium reionization and the fluctuating radiation background. Monthly Notices of the Royal Astronomical Society, 2014, 440, 987-1001.	4.4	9
84	Reionization and beyond: detecting the peaks of the cosmological 21-cm signal. Monthly Notices of the Royal Astronomical Society, 2014, 439, 3262-3274.	4.4	72
85	Detecting the peak of the cosmological 21 cm signal. , 2014, , .		0
86	The X-ray spectra of the first galaxies: 21-cm signatures. Monthly Notices of the Royal Astronomical Society, 2014, 443, 678-686.	4.4	114
87	Feedback-regulated supermassive black hole seed formation. Monthly Notices of the Royal Astronomical Society, 2014, 442, 2036-2047.	4.4	129
88	Inhomogeneous recombinations during cosmic reionization. Monthly Notices of the Royal Astronomical Society, 2014, 440, 1662-1673.	4.4	136
89	Reionization and the Cosmic Dawn with the Square Kilometre Array. Experimental Astronomy, 2013, 36, 235-318.	3.7	255
90	Evidence of Gunn-Peterson damping wings in high- z quasar spectra: strengthening the case for incomplete reionization at $z \approx 6.7$. Monthly Notices of the Royal Astronomical Society, 2013, 428, 3058-3071.	4.4	106

#	ARTICLE	IF	CITATIONS
91	Focusing on warm dark matter with lensed high-redshift galaxies. Monthly Notices of the Royal Astronomical Society: Letters, 2013, 435, L53-L57.	3.3	58
92	How does radiative feedback from an ultraviolet background impact reionization?. Monthly Notices of the Royal Astronomical Society, 2013, 432, 3340-3348.	4.4	79
93	The depletion of gas in high-redshift dwarf galaxies from an inhomogeneous reionization. Monthly Notices of the Royal Astronomical Society: Letters, 2013, 432, L51-L55.	3.3	63
94	Signatures of X-rays in the early Universe. Monthly Notices of the Royal Astronomical Society, 2013, 431, 621-637.	4.4	177
95	The kinetic Sunyaev-Zel'dovich signal from inhomogeneous reionization: a parameter space study. Monthly Notices of the Royal Astronomical Society, 2012, 422, 1403-1417.	4.4	87
96	21cmfast: a fast, seminumerical simulation of the high-redshift 21-cm signal. Monthly Notices of the Royal Astronomical Society, 2011, 411, 955-972.	4.4	533
97	Comparison of reionization models: radiative transfer simulations and approximate, seminumeric models. Monthly Notices of the Royal Astronomical Society, 2011, 414, 727-738.	4.4	165
98	The detectability of Ly α emission from galaxies during the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2011, 414, 2139-2147.	4.4	119
99	The first (nearly) model-independent constraint on the neutral hydrogen fraction at. Monthly Notices of the Royal Astronomical Society, 2011, 415, 3237-3246.	4.4	90
100	Was reionization complete by $z \approx 5-6$?. Monthly Notices of the Royal Astronomical Society, 2010, 407, 1328-1337.	4.4	104
101	The ionizing background at the end of reionization. Monthly Notices of the Royal Astronomical Society, 2009, 394, 1667-1673.	4.4	43
102	Gas in simulations of high-redshift galaxies and minihaloes. Monthly Notices of the Royal Astronomical Society, 2009, 399, 369-376.	4.4	35
103	Relic H II regions and radiative feedback at high redshifts. Monthly Notices of the Royal Astronomical Society, 2009, 399, 1650-1662.	4.4	23
104	The inhomogeneous ionizing background following reionization. Monthly Notices of the Royal Astronomical Society, 2009, 400, 1461-1471.	4.4	41
105	Ly α damping wing constraints on inhomogeneous reionization. Monthly Notices of the Royal Astronomical Society, 2008, 385, 1348-1358.	4.4	64
106	Ly α emitters during the early stages of reionization. Monthly Notices of the Royal Astronomical Society, 2008, 386, 1990-2002.	4.4	81
107	Ultraviolet radiative feedback during the advanced stages of reionization. Monthly Notices of the Royal Astronomical Society, 2008, 390, 1071-1080.	4.4	73
108	Fluctuations in the high-redshift Lyman-Werner background: close halo pairs as the origin of supermassive black holes. Monthly Notices of the Royal Astronomical Society, 2008, 391, 1961-1972.	4.4	221

#	ARTICLE	IF	CITATIONS
109	Feedback Effects on Population III Star Formation. , 2008, , .		0
110	Constraints on Reionization and Source Properties from the Absorption Spectra of $z > 6.2$ Quasars. <i>Astrophysical Journal</i> , 2007, 660, 923-932.	4.5	58
111	Efficient Simulations of Early Structure Formation and Reionization. <i>Astrophysical Journal</i> , 2007, 669, 663-675.	4.5	353
112	UV radiative feedback on high-redshift proto-galaxies. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 269-269.	0.0	0
113	Ultraviolet Radiative Feedback on High-Redshift Protogalaxies. <i>Astrophysical Journal</i> , 2006, 648, 835-851.	4.5	59
114	The Redshift Distribution of Distant Supernovae and Its Use in Probing Reionization. <i>Astrophysical Journal</i> , 2006, 637, 80-90.	4.5	30
115	Probing reionization with the cosmological proximity effect and high-redshift supernovae rates. <i>New Astronomy Reviews</i> , 2006, 50, 146-151.	12.8	0
116	Constraints on the Small-Scale Power Spectrum of Density Fluctuations from High-Redshift Gamma-Ray Bursts. <i>Astrophysical Journal</i> , 2005, 623, 1-10.	4.5	42
117	Evidence of a Cosmological Strömgren Surface and of Significant Neutral Hydrogen Surrounding the Quasar SDSS J1030+0524. <i>Astrophysical Journal</i> , 2004, 611, L69-L72.	4.5	13
118	Evidence of a Cosmological Strömgren Surface and of Significant Neutral Hydrogen Surrounding the Quasar SDSS J1030+0524. <i>Astrophysical Journal</i> , 2004, 611, L69-L72.	4.5	117
119	Probing the Reionization History Using the Spectra of High-Redshift Sources. <i>Astrophysical Journal</i> , 2004, 613, 23-35.	4.5	45
120	Are we witnessing the epoch of reionisation at $z = 7.1$ from the spectrum of J1120+0641?. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , stw3351.	4.4	79
121	Dark-ages Reionization & Galaxy Formation Simulation VIII. Suppressed growth of dark matter halos during the Epoch of Reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , stx083.	4.4	4
122	Deep learning from 21-cm tomography of the Cosmic Dawn and Reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	53
123	Reionisation & Cosmic Dawn Astrophysics from the Square Kilometre Array: Impact of Observing Strategies. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	13
124	Combining high- z galaxy luminosity functions with Bayesian evidence. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	12
125	Characterizing Beam Errors for Radio Interferometric Observations of Reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	0