

# Andrei Mesinger

## List of Publications by Year in descending order

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125  
papers

8,004  
citations

36303

51  
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51608

86  
g-index

125  
all docs

125  
docs citations

125  
times ranked

2754  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Hydrogen Epoch of Reionization Array (HERA). Publications of the Astronomical Society of the Pacific, 2017, 129, 045001.	3.1	448
3	Efficient Simulations of Early Structure Formation and Reionization. Astrophysical Journal, 2007, 669, 663-675.	4.5	353
4	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
5	Reionization and the Cosmic Dawn with the Square Kilometre Array. Experimental Astronomy, 2013, 36, 235-318.	3.7	255
6	The Universe Is Reionizing at $z \approx 7$ : Bayesian Inference of the IGM Neutral Fraction Using Ly $\alpha$ Emission from Galaxies. Astrophysical Journal, 2018, 856, 2.	4.5	224
7	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
8	21CMC: an MCMC analysis tool enabling astrophysical parameter studies of the cosmic 21cm signal. Monthly Notices of the Royal Astronomical Society, 2015, 449, 4246-4263.	4.4	181
9	Signatures of X-rays in the early Universe. Monthly Notices of the Royal Astronomical Society, 2013, 431, 621-637.	4.4	177
10	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
11	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
12	Can the intergalactic medium cause a rapid drop in Ly $\alpha$ emission at $z \approx 6$ ? Monthly Notices of the Royal Astronomical Society, 2015, 446, 566-577.	4.4	148
13	Inhomogeneous recombinations during cosmic reionization. Monthly Notices of the Royal Astronomical Society, 2014, 440, 1662-1673.	4.4	136
14	Feedback-regulated supermassive black hole seed formation. Monthly Notices of the Royal Astronomical Society, 2014, 442, 2036-2047.	4.4	129
15	The detectability of Ly $\alpha$ emission from galaxies during the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2011, 414, 2139-2147.	4.4	119
16	Evidence of a Cosmological Strömgren Surface and of Significant Neutral Hydrogen Surrounding the Quasar SDSS J1030+0524. Astrophysical Journal, 2004, 611, L69-L72.	4.5	117
17	The X-ray spectra of the first galaxies: 21cm signatures. Monthly Notices of the Royal Astronomical Society, 2014, 443, 678-686.	4.4	114
18	Evidence of Gunn-Peterson damping wings in high-z quasar spectra: strengthening the case for incomplete reionization at $z \approx 6$ . Monthly Notices of the Royal Astronomical Society, 2013, 428, 3058-3071.	4.4	106

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19	Was reionization complete by $z \approx 5-6$ ?. Monthly Notices of the Royal Astronomical Society, 2010, 407, 1328-1337.	4.4	104
20	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
21	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
22	Constraints on reionization from the $z = 7.5$ QSO ULASJ1342+0928. Monthly Notices of the Royal Astronomical Society, 2019, 484, 5094-5101.	4.4	97
23	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
24	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
25	The kinetic Sunyaev-Zeldovich signal from inhomogeneous reionization: a parameter space study. Monthly Notices of the Royal Astronomical Society, 2012, 422, 1403-1417.	4.4	87
26	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
27	The Evolution Of 21cm 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
28	The global history of reionization. Monthly Notices of the Royal Astronomical Society, 2017, 465, 4838-4852.	4.4	82
29	First Results from HERA Phase I: Upper Limits on the Epoch of Reionization 21 cm Power Spectrum. Astrophysical Journal, 2022, 925, 221.	4.5	82
30	Hydrogen reionization ends by $z = 5.3$ : Lyman- $\alpha$ optical depth measured by the XQR-30 sample. Monthly Notices of the Royal Astronomical Society, 2022, 514, 55-76.	4.4	82
31	Ly $\alpha$ emitters during the early stages of reionization. Monthly Notices of the Royal Astronomical Society, 2008, 386, 1990-2002.	4.4	81
32	How does radiative feedback from an ultraviolet background impact reionization?. Monthly Notices of the Royal Astronomical Society, 2013, 432, 3340-3348.	4.4	79
33	PAPER-64 CONSTRAINTS ON REIONIZATION. II. THE TEMPERATURE OF THE $z = 8.4$ INTERGALACTIC MEDIUM. Astrophysical Journal, 2015, 809, 62.	4.5	79
34	Are we witnessing the epoch of reionisation at $z = 7.1$ from the spectrum of J1120+0641?. Monthly Notices of the Royal Astronomical Society, 0, , stw3351.	4.4	79
35	Ly $\alpha$ emission-line reconstruction for high- $z$ QSOs. Monthly Notices of the Royal Astronomical Society, 2017, 466, 1814-1838.	4.4	77
36	Ultraviolet radiative feedback during the advanced stages of reionization. Monthly Notices of the Royal Astronomical Society, 2008, 390, 1071-1080.	4.4	73

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37	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
38	Beacons into the Cosmic Dark Ages: Boosted Transmission of Ly $\alpha$ from UV Bright Galaxies at $z \gtrsim 7$ . Astrophysical Journal Letters, 2018, 857, L11.	8.3	68
39	Evolution in the escape fraction of ionizing photons and the decline in strong Ly $\alpha$ emission from $z \gtrsim 6$ galaxies. Monthly Notices of the Royal Astronomical Society, 2014, 440, 3309-3316.	4.4	67
40	The clustering of Lyman $\alpha$ emitters at $z \gtrsim 7$ : implications for reionization and host halo masses. Monthly Notices of the Royal Astronomical Society, 2015, 453, 1843-1854.	4.4	67
41	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
42	Ly $\alpha$ damping wing constraints on inhomogeneous reionization. Monthly Notices of the Royal Astronomical Society, 2008, 385, 1348-1358.	4.4	64
43	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
44	21CMMC 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	HERA Phase I Limits on the Cosmic 21 cm Signal: Constraints on Astrophysics and Cosmology during the Epoch of Reionization. Astrophysical Journal, 2022, 924, 51.	4.5	63
46	Reionization and galaxy inference from the high-redshift Ly $\alpha$ forest. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2390-2407.	4.4	61
47	Dark-ages reionization and galaxy formation simulation â€“ IV. UV luminosity functions of high-redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2016, 462, 235-249.	4.4	60
48	Ultraviolet Radiative Feedback on High-Redshift Protogalaxies. Astrophysical Journal, 2006, 648, 835-851.	4.5	59
49	Constraints on Reionization and Source Properties from the Absorption Spectra of $z > 6.2$ Quasars. Astrophysical Journal, 2007, 660, 923-932.	4.5	58
50	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
51	Dark-ages reionization and galaxy formation simulation â€“ X. The small contribution of quasars to reionization. Monthly Notices of the Royal Astronomical Society, 2017, 472, 2009-2027.	4.4	58
52	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
53	Deep learning from 21-cm tomography of the Cosmic Dawn and Reionization. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	53
54	EARLY GALAXY FORMATION IN WARM DARK MATTER COSMOLOGIES. Astrophysical Journal, 2015, 806, 67.	4.5	52

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55	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
56	Interpreting LOFAR 21-cm signal upper limits at $z \approx 9.1$ in the context of high- $z$ galaxy and reionization observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 501, 1-13.	4.4	46
57	Probing the Reionization History Using the Spectra of High-Redshift Sources. <i>Astrophysical Journal</i> , 2004, 613, 23-35.	4.5	45
58	Dark-ages Reionization and Galaxy formation simulation “ I. The dynamical lives of high-redshift galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 3025-3039.	4.4	45
59	Results from EDGES High-band. II. Constraints on Parameters of Early Galaxies. <i>Astrophysical Journal</i> , 2018, 863, 11.	4.5	44
60	The ionizing background at the end of reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 394, 1667-1673.	4.4	43
61	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
62	The impact of scatter in the galaxy UV luminosity to halo mass relation on Ly $\alpha$ visibility during the epoch of reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 3602-3613.	4.4	42
63	A tale of two sites “ I. Inferring the properties of minihalo-hosted galaxies from current observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 123-140.	4.4	42
64	The inhomogeneous ionizing background following reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 400, 1461-1471.	4.4	41
65	Constraining high-redshift X-ray sources with next generation 21-cm power spectrum measurements. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 2710-2724.	4.4	41
66	Mitigating Internal Instrument Coupling for 21 cm Cosmology. II. A Method Demonstration with the Hydrogen Epoch of Reionization Array. <i>Astrophysical Journal</i> , 2020, 888, 70.	4.5	41
67	Gas in simulations of high-redshift galaxies and minihaloes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 399, 369-376.	4.4	35
68	Absolute Calibration Strategies for the Hydrogen Epoch of Reionization Array and Their Impact on the 21 cm Power Spectrum. <i>Astrophysical Journal</i> , 2020, 890, 122.	4.5	35
69	Redundant-baseline calibration of the hydrogen epoch of reionization array. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 499, 5840-5861.	4.4	33
70	Hydrodynamic Response of the Intergalactic Medium to Reionization. <i>Astrophysical Journal</i> , 2020, 898, 149.	4.5	33
71	Cross-correlation of the cosmic 21-cm signal and Lyman $\alpha$ emitters during reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 2741-2750.	4.4	31
72	The Redshift Distribution of Distant Supernovae and Its Use in Probing Reionization. <i>Astrophysical Journal</i> , 2006, 637, 80-90.	4.5	30

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73	IGM damping wing constraints on reionization from covariance reconstruction of two $z \approx 7$ QSOs. Monthly Notices of the Royal Astronomical Society, 2022, 512, 5390-5403.	4.4	30
74	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
75	Optimizing sparse RFI prediction using deep learning. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2605-2615.	4.4	29
76	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
77	HI tomographic imaging of the Cosmic Dawn and Epoch of Reionization with SKA. , 2015, , .		28
78	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
79	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
80	A tale of two sites II. Inferring the properties of minihalo-hosted galaxies with upcoming 21-cm interferometers. Monthly Notices of the Royal Astronomical Society, 2021, 501, 4748-4758.	4.4	26
81	Minimum size of 21-cm simulations. Monthly Notices of the Royal Astronomical Society, 2020, 495, 2354-2362.	4.4	25
82	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
83	Relic $\text{H II}$ regions and radiative feedback at high redshifts. Monthly Notices of the Royal Astronomical Society, 2009, 399, 1650-1662.	4.4	23
84	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
85	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
86	The HERA-19 Commissioning Array: Direction-dependent Effects. Astrophysical Journal, 2019, 882, 58.	4.5	20
87	Constraints on warm dark matter from UV luminosity functions of high- $z$ galaxies with Bayesian model comparison. Monthly Notices of the Royal Astronomical Society, 2021, 507, 3046-3056.	4.4	20
88	Dark-ages reionization and galaxy-formation simulation VII. The sizes of high-redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 465, 3134-3142.	4.4	19
89	The hydrogen epoch of reionization array dish III: measuring chromaticity of prototype element with reflectometry. Experimental Astronomy, 2018, 45, 177-199.	3.7	19
90	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

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91	Detection of cosmic structures using the bispectrum phase. II. First results from application to cosmic reionization using the Hydrogen Epoch of Reionization Array. <i>Physical Review D</i> , 2020, 102, .	4.7	17
92	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
93	Dark-ages reionization and galaxy-formation simulationâ€“ VI. The origins and fate of the highest known redshift galaxy. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 463, 3556-3562.	4.4	15
94	The spinâ€“temperature dependence of the 21-cmâ€“LAE cross-correlation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 496, 581-589.	4.4	14
95	Implications of the Ly $\alpha$ Emission Line from a Candidate documentclass{aastex} usepackage{amssymb} usepackage{amsbsy} usepackage{amsmath} usepackage{amstext} usepackage{amsfonts} usepackage{amssymb} usepackage{bm} usepackage{mathrsfs} usepackage{pifont} usepackage{stmaryrd} usepackage{textcomp} usepackage{portland,xspace} usepackage{amsmath,amsxtra} usepackage[OT2,OT1]{fontenc} ewcommandcyr{enewcommandmdefault{wncyr} anewcommandsfdefault{wncyss} anewcommandencodingdefault{OT2} ormalfont selectfont}	4.5	13
96	Dark-ages reionization and galaxy formation simulation â€“ XIII. AGN quenching of high-redshift star formation in ZF-COSMOS-20115. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 471, 4345-4354.	4.4	13
97	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
98	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
99	Combining high-z galaxy luminosity functions with Bayesian evidence. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	12
100	Measuring the Density Fields around Bright Quasars at $z \approx 6$ with XQR-30 Spectra. <i>Astrophysical Journal</i> , 2022, 931, 29.	4.5	12
101	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
102	Dark-ages reionization and galaxy formation simulation â€“ XII. Bubbles at dawn. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 1324-1335.	4.4	10
103	Dark-ages reionization and galaxy formation simulationâ€“XI. Clustering and halo masses of high redshift galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 1995-2008.	4.4	10
104	Peering into the dark (ages) with low-frequency space interferometers. <i>Experimental Astronomy</i> , 2021, 51, 1641-1676.	3.7	10
105	Semi-numeric simulations of helium reionization and the fluctuating radiation background. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 987-1001.	4.4	9
106	Methods of Error Estimation for Delay Power Spectra in 21 cm Cosmology. <i>Astrophysical Journal, Supplement Series</i> , 2021, 255, 26.	7.7	9
107	Upper limits on the 21-cm power spectrum at $z \approx 5.9$ from quasar absorption line spectroscopy. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2016, 463, L56-L60.	3.3	8
108	Bubble mapping with the Square Kilometre Array â€“ I. Detecting galaxies with Euclid, JWST, WFIRST, and ELT within ionized bubbles in the intergalactic medium at $z \gtrsim 6$ . <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 493, 855-870.	4.4	8

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109	Measuring HERA's Primary Beam in Situ: Methodology and First Results. <i>Astrophysical Journal</i> , 2020, 897, 5.	4.5	8
110	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
111	Simultaneously constraining the astrophysics of reionisation and the epoch of heating with 21CMMC. <i>Proceedings of the International Astronomical Union</i> , 2017, 12, 18-21.	0.0	5
112	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
113	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
114	Dark-ages reionization and galaxy formation simulation â€“ IX. Economics of reionizing galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 3300-3315.	4.4	4
115	Dark-ages Reionization and Galaxy Formation Simulation â€“ XIV. Gas accretion, cooling, and star formation in dwarf galaxies at high redshift. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 477, 1318-1335.	4.4	4
116	Dark-ages reionization and galaxy formation simulation â€“ XVI. The thermal memory of reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 489, 977-992.	4.4	4
117	Reionization and Cosmic Dawn: theory and simulations. <i>Proceedings of the International Astronomical Union</i> , 2017, 12, 3-11.	0.0	3
118	Dark-ages Reionization and Galaxy Formation Simulation â€“ XV. Stellar evolution and feedback in dwarf galaxies at high redshift. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 487, 1946-1963.	4.4	3
119	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
120	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
121	UV radiative feedback on high-redshift proto-galaxies. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 269-269.	0.0	0
122	Probing reionization with the cosmological proximity effect and high-redshift supernovae rates. <i>New Astronomy Reviews</i> , 2006, 50, 146-151.	12.8	0
123	Feedback Effects on Population III Star Formation. , 2008, , .		0
124	Detecting the peak of the cosmological 21 cm signal. , 2014, , .		0
125	Characterizing Beam Errors for Radio Interferometric Observations of Reionization. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	0