Zarija LukiÄ

List of Publications by Year
in descending order

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49 papers	2,941 citations	201674 27 h-index	254184 43 g-index
49 all docs	49 docs citations	49 times ranked	2546 citing authors

#	Article	IF	Citations
1	Fast, High-fidelity LyÎ± Forests with Convolutional Neural Networks. Astrophysical Journal, 2022, 929, 160.	4.5	5
2	Mining for Strong Gravitational Lenses with Self-supervised Learning. Astrophysical Journal, 2022, 932, 107.	4.5	13
3	Cosmic Inference: Constraining Parameters with Observations and a Highly Limited Number of Simulations. Astrophysical Journal, 2021, 906, 74.	4.5	10
4	Self-supervised Representation Learning for Astronomical Images. Astrophysical Journal Letters, 2021, 911, L33.	8.3	29
5	Simulating intergalactic gas for DESI-like small scale LymanÎ± forest observations. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 059.	5.4	18
6	Nyx: A Massively Parallel AMR Code for Computational Cosmology. Journal of Open Source Software, 2021, 6, 3068.	4.6	6
7	Improving IGM temperature constraints using wavelet analysis on high-redshift quasars. Monthly Notices of the Royal Astronomical Society, 2021, 508, 5493-5513.	4.4	5
8	The power spectrum of the Lyman-Î± Forest at z < 0.5. Monthly Notices of the Royal Astronomical Society, 2019, 486, 769-782.	4.4	30
9	New Constraints on IGM Thermal Evolution from the LyÎ± Forest Power Spectrum. Astrophysical Journal, 2019, 872, 13.	4.5	109
10	Tuning Object-Centric Data Management Systems for Large Scale Scientific Applications. , 2019, , .		6
11	Mapping Quasar Light Echoes in 3D with LyÎ± Forest Tomography. Astrophysical Journal, 2019, 882, 165.	4.5	17
12	DESCQA: An Automated Validation Framework for Synthetic Sky Catalogs. Astrophysical Journal, Supplement Series, 2018, 234, 36.	7.7	18
13	Modeling the He ii Transverse Proximity Effect: Constraints on Quasar Lifetime and Obscuration. Astrophysical Journal, 2018, 861, 122.	4.5	23
14	A Fundamental Test for Galaxy Formation Models: Matching the Lyman-Î± Absorption Profiles of Galactic Halos Over Three Decades in Distance. Astrophysical Journal, 2018, 859, 125.	4.5	20
15	Quantitative Constraints on the Reionization History from the IGM Damping Wing Signature in Two Quasars at zÂ>Â7. Astrophysical Journal, 2018, 864, 142.	4.5	197
16	A New Measurement of the Temperatureâ€“density Relation of the IGM from Voigt Profile Fitting. Astrophysical Journal, 2018, 865, 42.	4.5	62
17	A New Method to Measure the Post-reionization Ionizing Background from the Joint Distribution of LyÎ± and LyÎ² Forest Transmission^{âˆ—}. Astrophysical Journal, 2018, 855, 106.	4.5	42
18	Detection of zÂâ¼Â2.3 Cosmic Voids from 3D LyÎ± Forest Tomography in the COSMOS Field. Astrophysical Journal, 2018, 861, 60.	4.5	31

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19	Programmable In Situ System for Iterative Workflows. Lecture Notes in Computer Science, 2018, , 122-131.	1.3	2
20	Self-consistent Modeling of Reionization in Cosmological Hydrodynamical Simulations. Astrophysical Journal, 2017, 837, 106.	4.5	85
21	Measuring Alignments between Galaxies and the Cosmic Web at zÂâˆ¼Â2â€“3 Using IGM Tomography. Astrophysical Journal, 2017, 837, 31.	4.5	12
22	Implications of zÂâˆ¼Â6 Quasar Proximity Zones for the Epoch of Reionization and Quasar Lifetimes. Astrophysical Journal, 2017, 840, 24.	4.5	122
23	Measurement of the small-scale structure of the intergalactic medium using close quasar pairs. Science, 2017, 356, 418-422.	12.6	39
24	Statistical Detection of the He ii Transverse Proximity Effect: Evidence for Sustained Quasar Activity for >25 Million Years. Frontiers in Astronomy and Space Sciences, 2017, 4, .	2.8	0
25	Performance Analysis, Design Considerations, and Applications of Extreme-Scale In Situ Infrastructures. , 2016, , .		51
26	Master of Puppets. , 2016, , .		13
27	MODELING THE LyÎ± FOREST IN COLLISIONLESS SIMULATIONS. Astrophysical Journal, 2016, 827, 97.	4.5	27
28	In situ and in-transit analysis of cosmological simulations. Computational Astrophysics and Cosmology, 2016, 3, 4.	22.7	24
29	HACC: Simulating sky surveys on state-of-the-art supercomputing architectures. New Astronomy, 2016, 42, 49-65.	1.8	166
30	HACC. Communications of the ACM, 2016, 60, 97-104.	4.5	51
31	BD-CATS. , 2015, , .		38
32	The Lyman Î± forest in optically thin hydrodynamical simulations. Monthly Notices of the Royal Astronomical Society, 2015, 446, 3697-3724.	4.4	133
33	Structure finding in cosmological simulations: the state of affairs. Monthly Notices of the Royal Astronomical Society, 2013, 435, 1618-1658.	4.4	138
34	Imaging Fukushima Daiichi reactors with muons. AIP Advances, 2013, 3, .	1.3	59
35	Imaging a nuclear reactor using cosmic ray muons. Journal of Applied Physics, 2013, 113, .	2.5	39
36	Nyx: A MASSIVELY PARALLEL AMR CODE FOR COMPUTATIONAL COSMOLOGY. Astrophysical Journal, 2013, 765, 39.	4.5	192

#	ARTICLE	IF	CITATIONS
37	Obtaining material identification with cosmic ray radiography. AIP Advances, 2012, 2, .	1.3	27
38	The Universe at extreme scale: Multi-petaflop sky simulation on the BG/Q. , 2012, , .		28
39	Cosmic Ray Radiography of the Damaged Cores of the Fukushima Reactors. Physical Review Letters, 2012, 109, 152501.	7.8	63
40	GALAXY CLUSTERS AS A PROBE OF EARLY DARK ENERGY. Astrophysical Journal, 2011, 727, 87.	4.5	18
41	MASS FUNCTION PREDICTIONS BEYOND Î›CDM. Astrophysical Journal, 2011, 732, 122.	4.5	164
42	Haloes gone MADâ˜…: The Halo-Finder Comparison Project. Monthly Notices of the Royal Astronomical Society, 2011, 415, 2293-2318.	4.4	302
43	PARTICLE MESH SIMULATIONS OF THE LyÎ± FOREST AND THE SIGNATURE OF BARYON ACOUSTIC OSCILLATIONS IN THE INTERGALACTIC MEDIUM. Astrophysical Journal, 2010, 713, 383-393.	4.5	46
44	The Accelerated Universe. Computing in Science and Engineering, 2010, 12, 17-25.	1.2	21
45	THE STRUCTURE OF HALOS: IMPLICATIONS FOR GROUP AND CLUSTER COSMOLOGY. Astrophysical Journal, 2009, 692, 217-228.	4.5	82
46	Hybrid petacomputing meets cosmology: The Roadrunner Universe project. Journal of Physics: Conference Series, 2009, 180, 012019.	0.4	33
47	The cosmic code comparison project. Computational Science & Discovery, 2008, 1, 015003.	1.5	99
48	The Halo Mass Function: Highâ€Redshift Evolution and Universality. Astrophysical Journal, 2007, 671, 1160-1181.	4.5	184
49	Capturing Halos at High Redshifts. Astrophysical Journal, 2006, 642, L85-L88.	4.5	42