Nicolas Fagnoni

List of Publications by Year
in descending order

26 papers	980 citations	623734 14 h-index	610901 24 g-index
26 all docs	26 docs citations	26 times ranked	657 citing authors

#	Article	IF	Citations
1	Automated Detection of Antenna Malfunctions in Largeâ€N Interferometers: A Case Study With the Hydrogen Epoch of Reionization Array. Radio Science, 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. Astrophysical Journal, 2022, 924, 51.	4.5	63
3	Validation of the HERA Phase I Epoch of Reionization 21 cm Power Spectrum Software Pipeline. Astrophysical Journal, 2022, 924, 85.	4.5	11
4	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
5	Radio Antenna Design for Sky-Averaged 21cm Cosmology Experiments: The REACH Case. Journal of Astronomical Instrumentation, 2022, 11, .	1.5	11
6	Simulations of primary beam effects on the cosmic bispectrum phase observed with the Hydrogen Epoch of Reionization Array. Monthly Notices of the Royal Astronomical Society, 2022, 512, 2716-2727.	4.4	1
7	Array element coupling in radio interferometry I: a semi-analytic approach. Monthly Notices of the Royal Astronomical Society, 2022, 514, 1804-1827.	4.4	7
8	Effects of model incompleteness on the drift-scan calibration of radio telescopes. Monthly Notices of the Royal Astronomical Society, 2021, 506, 4578-4592.	4.4	2
9	Design of the New Wideband Vivaldi Feed for the HERA Radio-Telescope Phase II. IEEE Transactions on Antennas and Propagation, 2021, 69, 8143-8157.	5.1	10
10	Quantifying EoR delay spectrum contamination from diffuse radio emission. Monthly Notices of the Royal Astronomical Society, 2020, 494, 3712-3727.	4.4	11
11	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
12	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
13	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
14	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
15	Imaging and Modeling Data from the Hydrogen Epoch of Reionization Array. Astrophysical Journal, Supplement Series, 2020, 247, 67.	7.7	7
16	Redundant-baseline calibration of the hydrogen epoch of reionization array. Monthly Notices of the Royal Astronomical Society, 2020, 499, 5840-5861.	4.4	33
17	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
18	<tt>DAYENU:</tt> a simple filter of smooth foregrounds for intensity mapping power spectra. Monthly Notices of the Royal Astronomical Society, 2020, 500, 5195-5213.	4.4	21

#	Article	IF	Citations
19	Measuring HERA's Primary Beam in Situ: Methodology and First Results. Astrophysical Journal, 2020, 897, 5.	4.5	8
20	Optimizing sparse RFI prediction using deep learning. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2605-2615.	4.4	29
21	The HERA-19 Commissioning Array: Direction-dependent Effects. Astrophysical Journal, 2019, 882, 58.	4.5	20
22	Mitigating Internal Instrument Coupling for 21 cm Cosmology. I. Temporal and Spectral Modeling in Simulations. Astrophysical Journal, 2019, 884, 105.	4.5	42
23	Antenna design for the SKA1-LOW and HERA super radio telescopes. , 2018, , .		8
24	The hydrogen epoch of reionization array dish III: measuring chromaticity of prototype element with reflectometry. Experimental Astronomy, 2018, 45, 177-199.	3.7	19
25	Hydrogen Epoch of Reionization Array (HERA). Publications of the Astronomical Society of the Pacific, 2017, 129, 045001.	3.1	448
26	The â€œHydrogen Epoch of Reionization Arrayâ€•(HERA) â€” Improvement of the antenna response with a matching network and scientific impacts. , 2016, , .		4