

Katherine L Bouman

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

9,381
citations

136950

32
h-index

243625

44
g-index

47
all docs

47
docs citations

47
times ranked

3454
citing authors

#	ARTICLE	IF	CITATIONS
1	The Variability of the Black Hole Image in M87 at the Dynamical Timescale. <i>Astrophysical Journal</i> , 2022, 925, 13.	4.5	6
2	MeqSilhouette v2: spectrally resolved polarimetric synthetic data generation for the event horizon telescope. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 490-504.	4.4	7
3	Deep radio-interferometric imaging with POLISH: DSA-2000 and weak lensing. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 514, 2614-2626.	4.4	9
4	First Sagittarius A* Event Horizon Telescope Results. III. Imaging of the Galactic Center Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2022, 930, L14.	8.3	163
5	Characterizing and Mitigating Intraday Variability: Reconstructing Source Structure in Accreting Black Holes with mm-VLBI. <i>Astrophysical Journal Letters</i> , 2022, 930, L21.	8.3	20
6	First Sagittarius A* Event Horizon Telescope Results. VI. Testing the Black Hole Metric. <i>Astrophysical Journal Letters</i> , 2022, 930, L17.	8.3	215
7	First Sagittarius A* Event Horizon Telescope Results. II. EHT and Multiwavelength Observations, Data Processing, and Calibration. <i>Astrophysical Journal Letters</i> , 2022, 930, L13.	8.3	142
8	First Sagittarius A* Event Horizon Telescope Results. IV. Variability, Morphology, and Black Hole Mass. <i>Astrophysical Journal Letters</i> , 2022, 930, L15.	8.3	137
9	First Sagittarius A* Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole in the Center of the Milky Way. <i>Astrophysical Journal Letters</i> , 2022, 930, L12.	8.3	568
10	Selective Dynamical Imaging of Interferometric Data. <i>Astrophysical Journal Letters</i> , 2022, 930, L18.	8.3	21
11	Millimeter Light Curves of Sagittarius A* Observed during the 2017 Event Horizon Telescope Campaign. <i>Astrophysical Journal Letters</i> , 2022, 930, L19.	8.3	43
12	A Universal Power-law Prescription for Variability from Synthetic Images of Black Hole Accretion Flows. <i>Astrophysical Journal Letters</i> , 2022, 930, L20.	8.3	20
13	First Sagittarius A* Event Horizon Telescope Results. V. Testing Astrophysical Models of the Galactic Center Black Hole. <i>Astrophysical Journal Letters</i> , 2022, 930, L16.	8.3	187
14	$\hat{\pm}$ -deep Probabilistic Inference ($\hat{\pm}$ -DPI): Efficient Uncertainty Quantification from Exoplanet Astrometry to Black Hole Feature Extraction. <i>Astrophysical Journal</i> , 2022, 932, 99.	4.5	6
15	First M87 Event Horizon Telescope Results. VII. Polarization of the Ring. <i>Astrophysical Journal Letters</i> , 2021, 910, L12.	8.3	215
16	Polarimetric Properties of Event Horizon Telescope Targets from ALMA. <i>Astrophysical Journal Letters</i> , 2021, 910, L14.	8.3	67
17	First M87 Event Horizon Telescope Results. VIII. Magnetic Field Structure near The Event Horizon. <i>Astrophysical Journal Letters</i> , 2021, 910, L13.	8.3	297
18	Broadband Multi-wavelength Properties of M87 during the 2017 Event Horizon Telescope Campaign. <i>Astrophysical Journal Letters</i> , 2021, 911, L11.	8.3	56

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19	The Polarized Image of a Synchrotron-emitting Ring of Gas Orbiting a Black Hole. <i>Astrophysical Journal</i> , 2021, 912, 35.	4.5	43
20	Event Horizon Telescope observations of the jet launching and collimation in Centaurus A. <i>Nature Astronomy</i> , 2021, 5, 1017-1028.	10.1	65
21	Wind speed inference from environmental flow–structure interactions. <i>Flow</i> , 2021, 1, .	2.6	4
22	Inference of Black Hole Fluid-Dynamics from Sparse Interferometric Measurements. , 2021, , .		1
23	Verification of Radiative Transfer Schemes for the EHT. <i>Astrophysical Journal</i> , 2020, 897, 148.	4.5	44
24	Learning a Probabilistic Strategy for Computational Imaging Sensor Selection. , 2020, , .		5
25	THEMIS: A Parameter Estimation Framework for the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2020, 897, 139.	4.5	47
26	Event Horizon Telescope imaging of the archetypal blazar 3C 279 at an extreme 20 microarcsecond resolution. <i>Astronomy and Astrophysics</i> , 2020, 640, A69.	5.1	54
27	Monitoring the Morphology of M87* in 2009–2017 with the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2020, 901, 67.	4.5	51
28	Medical Image Imputation From Image Collections. <i>IEEE Transactions on Medical Imaging</i> , 2019, 38, 504-514.	8.9	33
29	Visual Dynamics: Stochastic Future Generation via Layered Cross Convolutional Networks. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2019, 41, 2236-2250.	13.9	15
30	The Event Horizon General Relativistic Magnetohydrodynamic Code Comparison Project. <i>Astrophysical Journal</i> , Supplement Series, 2019, 243, 26.	7.7	175
31	Metrics and Motivations for Earth–Space VLBI: Time-resolving Sgr A* with the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2019, 881, 62.	4.5	36
32	First M87 Event Horizon Telescope Results. III. Data Processing and Calibration. <i>Astrophysical Journal Letters</i> , 2019, 875, L3.	8.3	519
33	First M87 Event Horizon Telescope Results. II. Array and Instrumentation. <i>Astrophysical Journal Letters</i> , 2019, 875, L2.	8.3	618
34	First M87 Event Horizon Telescope Results. IV. Imaging the Central Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L4.	8.3	806
35	First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L1.	8.3	2,264
36	First M87 Event Horizon Telescope Results. V. Physical Origin of the Asymmetric Ring. <i>Astrophysical Journal Letters</i> , 2019, 875, L5.	8.3	814

#	ARTICLE	IF	CITATIONS
37	First M87 Event Horizon Telescope Results. VI. The Shadow and Mass of the Central Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L6.	8.3	897
38	EHT-HOPS Pipeline for Millimeter VLBI Data Reduction. <i>Astrophysical Journal</i> , 2019, 882, 23.	4.5	34
39	Interferometric Imaging Directly with Closure Phases and Closure Amplitudes. <i>Astrophysical Journal</i> , 2018, 857, 23.	4.5	159
40	Reconstructing Video of Time-Varying Sources From Radio Interferometric Measurements. <i>IEEE Transactions on Computational Imaging</i> , 2018, 4, 512-527.	4.4	22
41	Imaging the Schwarzschild-radius-scale Structure of M87 with the Event Horizon Telescope Using Sparse Modeling. <i>Astrophysical Journal</i> , 2017, 838, 1.	4.5	111
42	Dynamical Imaging with Interferometry. <i>Astrophysical Journal</i> , 2017, 850, 172.	4.5	52
43	Population Based Image Imputation. <i>Lecture Notes in Computer Science</i> , 2017, 10265, 659-671.	1.3	17
44	Observing and Imaging Active Galactic Nuclei with the Event Horizon Telescope. <i>Galaxies</i> , 2016, 4, 54.	3.0	63
45	Computational Imaging for VLBI Image Reconstruction. , 2016, , .		27
46	HIGH-RESOLUTION LINEAR POLARIMETRIC IMAGING FOR THE EVENT HORIZON TELESCOPE. <i>Astrophysical Journal</i> , 2016, 829, 11.	4.5	159
47	IMAGING AN EVENT HORIZON: MITIGATION OF SCATTERING TOWARD SAGITTARIUS A*. <i>Astrophysical Journal</i> , 2014, 795, 134.	4.5	67