

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 | 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 |
| 2 | 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 |
| 3 | First M87 Event Horizon Telescope Results. V. Physical Origin of the Asymmetric Ring. <i>Astrophysical Journal Letters</i> , 2019, 875, L5. | 8.3 | 814 |
| 4 | First M87 Event Horizon Telescope Results. IV. Imaging the Central Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L4. | 8.3 | 806 |
| 5 | First M87 Event Horizon Telescope Results. II. Array and Instrumentation. <i>Astrophysical Journal Letters</i> , 2019, 875, L2. | 8.3 | 618 |
| 6 | 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 |
| 7 | First M87 Event Horizon Telescope Results. III. Data Processing and Calibration. <i>Astrophysical Journal Letters</i> , 2019, 875, L3. | 8.3 | 519 |
| 8 | 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 |
| 9 | First M87 Event Horizon Telescope Results. VII. Polarization of the Ring. <i>Astrophysical Journal Letters</i> , 2021, 910, L12. | 8.3 | 215 |
| 10 | First Sagittarius A* Event Horizon Telescope Results. VI. Testing the Black Hole Metric. <i>Astrophysical Journal Letters</i> , 2022, 930, L17. | 8.3 | 215 |
| 11 | 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 |
| 12 | The Event Horizon General Relativistic Magnetohydrodynamic Code Comparison Project. <i>Astrophysical Journal, Supplement Series</i> , 2019, 243, 26. | 7.7 | 175 |
| 13 | 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 |
| 14 | HIGH-RESOLUTION LINEAR POLARIMETRIC IMAGING FOR THE EVENT HORIZON TELESCOPE. <i>Astrophysical Journal</i> , 2016, 829, 11. | 4.5 | 159 |
| 15 | Interferometric Imaging Directly with Closure Phases and Closure Amplitudes. <i>Astrophysical Journal</i> , 2018, 857, 23. | 4.5 | 159 |
| 16 | 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 |
| 17 | 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 |
| 18 | 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 |

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|----|---|------|-----------|
| 19 | IMAGING AN EVENT HORIZON: MITIGATION OF SCATTERING TOWARD SAGITTARIUS A*. <i>Astrophysical Journal</i> , 2014, 795, 134. | 4.5 | 67 |
| 20 | Polarimetric Properties of Event Horizon Telescope Targets from ALMA. <i>Astrophysical Journal Letters</i> , 2021, 910, L14. | 8.3 | 67 |
| 21 | Event Horizon Telescope observations of the jet launching and collimation in Centaurus A. <i>Nature Astronomy</i> , 2021, 5, 1017-1028. | 10.1 | 65 |
| 22 | Observing and Imaging Active Galactic Nuclei with the Event Horizon Telescope. <i>Galaxies</i> , 2016, 4, 54. | 3.0 | 63 |
| 23 | Broadband Multi-wavelength Properties of M87 during the 2017 Event Horizon Telescope Campaign. <i>Astrophysical Journal Letters</i> , 2021, 911, L11. | 8.3 | 56 |
| 24 | 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 |
| 25 | Dynamical Imaging with Interferometry. <i>Astrophysical Journal</i> , 2017, 850, 172. | 4.5 | 52 |
| 26 | Monitoring the Morphology of M87* in 2009–2017 with the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2020, 901, 67. | 4.5 | 51 |
| 27 | THEMIS: A Parameter Estimation Framework for the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2020, 897, 139. | 4.5 | 47 |
| 28 | Verification of Radiative Transfer Schemes for the EHT. <i>Astrophysical Journal</i> , 2020, 897, 148. | 4.5 | 44 |
| 29 | The Polarized Image of a Synchrotron-emitting Ring of Gas Orbiting a Black Hole. <i>Astrophysical Journal</i> , 2021, 912, 35. | 4.5 | 43 |
| 30 | 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 |
| 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 | EHT-HOPS Pipeline for Millimeter VLBI Data Reduction. <i>Astrophysical Journal</i> , 2019, 882, 23. | 4.5 | 34 |
| 33 | Medical Image Imputation From Image Collections. <i>IEEE Transactions on Medical Imaging</i> , 2019, 38, 504-514. | 8.9 | 33 |
| 34 | Computational Imaging for VLBI Image Reconstruction. , 2016, , . | | 27 |
| 35 | Reconstructing Video of Time-Varying Sources From Radio Interferometric Measurements. <i>IEEE Transactions on Computational Imaging</i> , 2018, 4, 512-527. | 4.4 | 22 |
| 36 | Selective Dynamical Imaging of Interferometric Data. <i>Astrophysical Journal Letters</i> , 2022, 930, L18. | 8.3 | 21 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 37 | 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 |
| 38 | 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 |
| 39 | Population Based Image Imputation. <i>Lecture Notes in Computer Science</i> , 2017, 10265, 659-671. | 1.3 | 17 |
| 40 | 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 |
| 41 | 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 |
| 42 | 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 |
| 43 | The Variability of the Black Hole Image in M87 at the Dynamical Timescale. <i>Astrophysical Journal</i> , 2022, 925, 13. | 4.5 | 6 |
| 44 | $\hat{\pm}$ -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 |
| 45 | Learning a Probabilistic Strategy for Computational Imaging Sensor Selection. , 2020, , . | | 5 |
| 46 | Wind speed inference from environmental flowâ€™structure interactions. <i>Flow</i> , 2021, 1, . | 2.6 | 4 |
| 47 | Inference of Black Hole Fluid-Dynamics from Sparse Interferometric Measurements. , 2021, , . | | 1 |