Denis Barkats

List of Publications by Year
in descending order

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		186265	133252
67	6,225	28	59
papers	citations	h-index	g-index

67	67	67	5011
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Detection of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>B</mml:mi></mml:math>-Mode Polarization at Degree Angular Scales by BICEP2. Physical Review Letters, 2014, 112, 241101.	7.8	1,227
2	THE 2014 ALMA LONG BASELINE CAMPAIGN: FIRST RESULTS FROM HIGH ANGULAR RESOLUTION OBSERVATIONS TOWARD THE HL TAU REGION. Astrophysical Journal Letters, 2015, 808, L3.	8.3	877
3	Joint Analysis of BICEP2/Keck ArrayandPlanckData. Physical Review Letters, 2015, 114, 101301.	7.8	819
4	Improved Constraints on Cosmology and Foregrounds from BICEP2 and Keck Array Cosmic Microwave Background Data with Inclusion of 95ÂGHz Band. Physical Review Letters, 2016, 116, 031302.	7.8	512
5	Improved Constraints on Primordial Gravitational Waves using Planck , WMAP, and BICEP/ Keck Observations through the 2018 Observing Season. Physical Review Letters, 2021, 127, 151301.	7.8	401
6	Constraints on Primordial Gravitational Waves Using <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>P</mml:mi><mml:mi>l</mml:mi><mml:mi>a</mml:mi><mml:mi>n</mml:mi><mml:mi>c</mml:mi> , WMAP, and New BICEP2/ <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>K</mml:mi><mml:mi>e</mml:mi><mml:mi>c</mml:mi><mml:mi>k</mml:mi></mml:mrow></m Observations through the 2015 Season. Physical Review Letters, 2018, 121, 221301.	7.8	366
7	MEASUREMENT OF COSMIC MICROWAVE BACKGROUND POLARIZATION POWER SPECTRA FROM TWO YEARS OF BICEP DATA. Astrophysical Journal, 2010, 711, 1123-1140.	4.5	194
8	BICEP2. II. EXPERIMENT AND THREE-YEAR DATA SET. Astrophysical Journal, 2014, 792, 62.	4.5	158
9	THE 2014 ALMA LONG BASELINE CAMPAIGN: AN OVERVIEW. Astrophysical Journal Letters, 2015, 808, L1.	8.3	90
10	Resolving the planetesimal belt of HR 8799 with ALMA. Monthly Notices of the Royal Astronomical Society: Letters, 2016, 460, L10-L14.	3.3	87
11	[C II] LINE EMISSION IN MASSIVE STAR-FORMING GALAXIES AT z = 4.7. Astrophysical Journal Letters, 2012, 752, L30.	8.3	86
12	THE 2014 ALMA LONG BASELINE CAMPAIGN: OBSERVATIONS OF THE STRONGLY LENSED SUBMILLIMETER GALAXY HATLAS J090311.6+003906 AT z = 3.042. Astrophysical Journal Letters, 2015, 808, L4.	8.3	86
13	First Measurements of the Polarization of the Cosmic Microwave Background Radiation at Small Angular Scales from CAPMAP. Astrophysical Journal, 2005, 619, L127-L130.	4.5	84
14	Bicep2/KECK ARRAYÂVIII: MEASUREMENT OF GRAVITATIONAL LENSING FROM LARGE-SCALE B-MODE POLARIZATION. Astrophysical Journal, 2016, 833, 228.	4.5	80
15	BICEP2/KECK ARRAY V: MEASUREMENTS OFB-MODE POLARIZATION AT DEGREE ANGULAR SCALES AND 150 GHz BY THE KECK ARRAY. Astrophysical Journal, 2015, 811, 126.	4.5	79
16	CMB-S4: Forecasting Constraints on Primordial Gravitational Waves. Astrophysical Journal, 2022, 926, 54.	4.5	79
17	New Measurements of Fineâ€Scale CMB Polarization Power Spectra from CAPMAP at Both 40 and 90 GHz. Astrophysical Journal, 2008, 684, 771-789.	4.5	66
18	CHARACTERIZATION OF THE BICEP TELESCOPE FOR HIGH-PRECISION COSMIC MICROWAVE BACKGROUND POLARIMETRY. Astrophysical Journal, 2010, 711, 1141-1156.	4.5	62

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19	Self-calibration of BICEP1 three-year data and constraints on astrophysical polarization rotation. Physical Review D, 2014, 89, .	4.7	53
20	ANTENNA-COUPLED TES BOLOMETERS USED IN BICEP2,Keck Array, AND SPIDER. Astrophysical Journal, 2015, 812, 176.	4.5	53
21	DEGREE-SCALE COSMIC MICROWAVE BACKGROUND POLARIZATION MEASUREMENTS FROM THREE YEARS OF BICEP1 DATA. Astrophysical Journal, 2014, 783, 67.	4.5	51
22	ALMA and VLA measurements of frequency-dependent time lags in Sagittarius A*: evidence for a relativistic outflow. Astronomy and Astrophysics, 2015, 576, A41.	5.1	50
23	BICEP Array: a multi-frequency degree-scale CMB polarimeter. , 2018, , .		46
24	A Limit on the Polarized Anisotropy of the Cosmic Microwave Background at Subdegree Angular Scales. Astrophysical Journal, 2001, 548, L111-L114.	4.5	42
25	ALMA Long Baseline Campaigns: Phase Characteristics of Atmosphere at Long Baselines in the Millimeter and Submillimeter Wavelengths. Publications of the Astronomical Society of the Pacific, 2017, 129, 035004.	3.1	39
26	BICEP2 / Keck Array IX: New bounds on anisotropies of CMB polarization rotation and implications for axionlike particles and primordial magnetic fields. Physical Review D, 2017, 96, .	4.7	39
27	Bicep2. III. INSTRUMENTAL SYSTEMATICS. Astrophysical Journal, 2015, 814, 110.	4.5	38
28	Initial Performance of Bicep3: A Degree Angular Scale 95 GHz Band Polarimeter. Journal of Low Temperature Physics, 2016, 184, 765-771.	1.4	38
29	The Robinson Gravitational Wave Background Telescope (BICEP): a bolometric large angular scale CMB polarimeter. , 2006, 6275, 508.		36
30	bicep2/KECK ARRAY. IV. OPTICAL CHARACTERIZATION AND PERFORMANCE OF THE bicep2 ANDKECK ARRAYEXPERIMENTS. Astrophysical Journal, 2015, 806, 206.	4.5	34
31	BICEP2 and Keck array: upgrades and improved beam characterization. Proceedings of SPIE, 2014, , .	0.8	26
32	A MILLIMETER-WAVE GALACTIC PLANE SURVEY WITH THE BICEP POLARIMETER. Astrophysical Journal, 2011, 741, 81.	4.5	24
33	Cosmic Microwave Background Polarimetry Using Correlation Receivers with the PIQUE and CAPMAP Experiments. Astrophysical Journal, Supplement Series, 2005, 159, 1-26.	7.7	21
34	A demonstration of improved constraints on primordial gravitational waves with delensing. Physical Review D, 2021, 103, .	4.7	21
35	New Limits on the Polarized Anisotropy of the Cosmic Microwave Background at Subdegree Angular Scales. Astrophysical Journal, 2002, 573, L73-L76.	4.5	19
36	Design and Performance of the First BICEP Array Receiver. Journal of Low Temperature Physics, 2020, 199, 976-984.	1.4	17

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37	THE 2014 ALMA LONG BASELINE CAMPAIGN: OBSERVATIONS OF ASTEROID 3 JUNO AT 60 KILOMETER RESOLUTION. Astrophysical Journal Letters, 2015, 808, L2.	8.3	15
38	BICEP2/KECK ARRAY. VII. MATRIX BASED E/B SEPARATION APPLIED TO BICEP2 AND THE KECK ARRAY. Astrophysical Journal, 2016, 825, 66.	4.5	15
39	Bicep/Keck XV: The Bicep3 Cosmic Microwave Background Polarimeter and the First Three-year Data Set. Astrophysical Journal, 2022, 927, 77.	4.5	15
40	First attempt at measuring the CMB cross-polarization. Physical Review D, 2003, 67, .	4.7	14
41	SCIENTIFIC VERIFICATION OF FARADAY ROTATION MODULATORS: DETECTION OF DIFFUSE POLARIZED GALACTIC EMISSION. Astrophysical Journal, 2013, 765, 64.	4.5	14
42	Microwave Multiplexing on the Keck Array. Journal of Low Temperature Physics, 2020, 199, 858-866.	1.4	14
43	2017 upgrade and performance of BICEP3: a 95GHz refracting telescope for degree-scale CMB polarization. , 2018, , .		13
44	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>BICEP</mml:mi><mml:mo>/</mml:mo><mml:mi>K</mml:mi><mml:mi>e</mml:mi><mml:mi>c</ XII: Constraints on axionlike polarization oscillations in the cosmic microwave background. Physical Review D, 2021, 103, .	4.7	12
45	BICEP2/Keck Array XI: Beam Characterization and Temperature-to-Polarization Leakage in the BK15 Data Set. Astrophysical Journal, 2019, 884, 114.	4.5	10
46	CMB polarimetry with BICEP: instrument characterization, calibration, and performance. Proceedings of SPIE, 2008, , .	0.8	9
47	BICEP3 focal plane design and detector performance. Proceedings of SPIE, 2016, , .	0.8	9
48	BICEP/ <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>K</mml:mi><mml:mi>e</mml:mi><mml:mi>c</mml:mi><mml:mi>k</mml:mi></mml:math> XIV: Improved constraints on axionlike polarization oscillations in the cosmic microwave background. Physical Review D, 2022, 105, .	4.7	9
49	BICEP array cryostat and mount design. , 2018, , .		8
50	Optical characterization of the BICEP3 CMB polarimeter at the South Pole. Proceedings of SPIE, 2016, , .	0.8	7
51	Absolute polarization angle calibration using polarized diffuse Galactic emission observed by BICEP. Proceedings of SPIE, 2010, , .	0.8	6
52	ALMA fast switching phase calibration on long baselines. Proceedings of SPIE, 2014, , .	0.8	6
53	Design and performance of wide-band corrugated walls for the BICEP Array detector modules at 30/40 GHz. , 2018, , .		6
54	Calibrating CMB polarization telescopes. AIP Conference Proceedings, 2002, , .	0.4	5

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55	Optical Characterization of the Keck Array and BICEP3 CMB Polarimeters from 2016 to 2019. Journal of Low Temperature Physics, 2020, 199, 824-832.	1.4	5
56	Characterizing the Sensitivity of 40 GHz TES Bolometers for BICEP Array. Journal of Low Temperature Physics, 2020, 199, 968-975.	1.4	5
57	ALMA temporal phase stability and the effectiveness of water vapor radiometer. Proceedings of SPIE, 2012, , .	0.8	4
58	Keck array and BICEP3: spectral characterization of 5000+ detectors. Proceedings of SPIE, 2014, , .	0.8	4
59	Optical Design and Characterization of 40-GHz Detector and Module for the BICEP Array. Journal of Low Temperature Physics, 2020, 199, 1118-1126.	1.4	4
60	The CAPMAP instrument and its first season. New Astronomy Reviews, 2003, 47, 1077-1081.	12.8	3
61	Interaction design challenges and solutions for ALMA operations monitoring and control. Proceedings of SPIE, 2012, , .	0.8	3
62	Atmospheric phase characteristics of the ALMA long baseline. Proceedings of SPIE, 2016, , .	0.8	3
63	Ultra-thin large-aperture vacuum windows for millimeter wavelengths receivers. , 2018, , .		3
64	Phase characteristics of the ALMA 3-km baseline data. Proceedings of SPIE, 2014, , .	0.8	2
65	System engineering of the Atacama Large Millimeter/submillimeter Array. , 2012, , .		1
66	ALMA system verification. Proceedings of SPIE, 2012, , .	0.8	1
67	High-precision scanning water vapor radiometers for cosmic microwave background site characterization and comparison. , 2018, , .		0