

Ashley Barnes

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

2,017
citations

218677

26
h-index

254184

43
g-index

56
all docs

56
docs citations

56
times ranked

1228
citing authors

#	ARTICLE	IF	CITATIONS
1	PHANGSâ€“ALMA: Arcsecond CO(2â€“1) Imaging of Nearby Star-forming Galaxies. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 43.	7.7	161
2	Molecular gas kinematics within the central 250â€“pc of the Milky Way. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 2675-2702.	4.4	154
3	Star formation rates and efficiencies in the Galactic Centre. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, 2263-2285.	4.4	129
4	The PHANGS-MUSE survey. <i>Astronomy and Astrophysics</i> , 2022, 659, A191.	5.1	96
5	PHANGSâ€“ALMA Data Processing and Pipeline. <i>Astrophysical Journal, Supplement Series</i> , 2021, 255, 19.	7.7	79
6	Distributed Star Formation throughout the Galactic Center Cloud Sgr B2. <i>Astrophysical Journal</i> , 2018, 853, 171.	4.5	74
7	New constraints on the 12CO(2â€“1)/(1â€“0) line ratio across nearby disc galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 3221-3245.	4.4	71
8	The dynamical evolution of molecular clouds near the Galactic Centre â€“ II. Spatial structure and kinematics of simulated clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 484, 5734-5754.	4.4	68
9	Pre-supernova feedback mechanisms drive the destruction of molecular clouds in nearby star-forming disc galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 509, 272-288.	4.4	65
10	On the duration of the embedded phase of star formation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 487-509.	4.4	61
11	The PHANGS-HST Survey: Physics at High Angular Resolution in Nearby Galaxies with the Hubble Space Telescope. <i>Astrophysical Journal, Supplement Series</i> , 2022, 258, 10.	7.7	58
12	â€“The Brickâ€“ is not a brick: a comprehensive study of the structure and dynamics of the central molecular zone cloud G0.253+0.016. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 2457-2485.	4.4	57
13	A tale of two DIGs: The relative role of Hâ€“II regions and low-mass hot evolved stars in powering the diffuse ionised gas (DIG) in PHANGSâ€“MUSE galaxies. <i>Astronomy and Astrophysics</i> , 2022, 659, A26.	5.1	51
14	Mass inflow rate into the Central Molecular Zone: observational determination and evidence of episodic accretion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 484, 1213-1219.	4.4	50
15	Investigating the structure and fragmentation of a highly filamentary IRDC. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 463, 146-169.	4.4	47
16	Which feedback mechanisms dominate in the high-pressure environment of the central molecular zone?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 498, 4906-4923.	4.4	47
17	Low-J CO Line Ratios from Single-dish CO Mapping Surveys and PHANGS-ALMA. <i>Astrophysical Journal</i> , 2022, 927, 149.	4.5	46
18	Unveiling the early-stage anatomy of a protocluster hub with ALMA. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 464, L31-L35.	3.3	40

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19	PHANGSâ€™ MUSE: The H α -II region luminosity function of local star-forming galaxies. <i>Astronomy and Astrophysics</i> , 2022, 658, A188.	5.1	34
20	Molecular Cloud Populations in the Context of Their Host Galaxy Environments: A Multiwavelength Perspective. <i>Astronomical Journal</i> , 2022, 164, 43.	4.7	31
21	H ₂ O Southern Galactic Plane Survey (HOPS): Paper III â€™ properties of dense molecular gas across the inner Milky Way. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 1462-1490.	4.4	30
22	LEGO â€™ II. A 3â€™mm molecular line study covering 100â€™pc of one of the most actively star-forming portions within the Milky Way disc. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 1972-2001.	4.4	30
23	Young massive star cluster formation in the Galactic Centre is driven by global gravitational collapse of high-mass molecular clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 283-303.	4.4	29
24	The geometry of the gas surrounding the Central Molecular Zone: on the origin of localized molecular clouds with extreme velocity dispersions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 488, 4663-4673.	4.4	28
25	CMZoom: Survey Overview and First Data Release. <i>Astrophysical Journal, Supplement Series</i> , 2020, 249, 35.	7.7	27
26	Comparing the pre-SNe feedback and environmental pressures for 6000 H α regions across 19 nearby spiral galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 508, 5362-5389.	4.4	27
27	Widespread deuteration across the IRDC G035.39â€™00.33. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 1990-1998.	4.4	24
28	A Census of Early-phase High-mass Star Formation in the Central Molecular Zone. <i>Astrophysical Journal, Supplement Series</i> , 2019, 244, 35.	7.7	24
29	Dense molecular gas properties on 100â€™pc scales across the disc of NGC 3627. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 506, 963-988.	4.4	24
30	¹⁵ N fractionation in infrared-dark cloud cores. <i>Astronomy and Astrophysics</i> , 2017, 603, A22.	5.1	21
31	Subsonic islands within a high-mass star-forming infrared dark cloud. <i>Astronomy and Astrophysics</i> , 2018, 611, L3.	5.1	20
32	Molecular Gas Properties and CO-to-H ₂ Conversion Factors in the Central Kiloparsec of NGC 3351. <i>Astrophysical Journal</i> , 2022, 925, 72.	4.5	20
33	Star formation in â€™ the Brickâ€™: ALMA reveals an active protocluster in the Galactic centre cloud G0.253+0.016. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 77-95.	4.4	19
34	Frequency and nature of central molecular outflows in nearby star-forming disk galaxies. <i>Astronomy and Astrophysics</i> , 2021, 653, A172.	5.1	19
35	The Gasâ€™ Star Formation Cycle in Nearby Star-forming Galaxies. II. Resolved Distributions of CO and H \pm Emission for 49 PHANGS Galaxies. <i>Astrophysical Journal</i> , 2022, 927, 9.	4.5	19
36	H \pm morphologies of star clusters in 16 LEGUS galaxies: Constraints on H α region evolution time-scales. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 1294-1316.	4.4	17

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37	Widespread SiO and CH ₃ OH Emission in Filamentary Infrared-Dark Clouds... Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	16
38	Similar complex kinematics within two massive, filamentary infrared dark clouds. Monthly Notices of the Royal Astronomical Society, 2018, 475, 5268-5289.	4.4	16
39	ALMA's IRDC: dense gas mass distribution from cloud to core scales. Monthly Notices of the Royal Astronomical Society, 2021, 503, 4601-4626.	4.4	16
40	CMZoom. II. Catalog of Compact Submillimeter Dust Continuum Sources in the Milky Way's Central Molecular Zone. Astrophysical Journal, Supplement Series, 2020, 251, 14.	7.7	16
41	Bright, relatively isolated star clusters in PHANGS's HST galaxies: Aperture corrections, quantitative morphologies, and comparison with synthetic stellar population models. Monthly Notices of the Royal Astronomical Society, 2021, 510, 32-53.	4.4	16
42	SOFIA/FIFI-LS Full-disk [C ii] Mapping and CO-dark Molecular Gas across the Nearby Spiral Galaxy NGC 6946. Astrophysical Journal, 2020, 903, 30.	4.5	15
43	Planetary nebula luminosity function distances for 19 galaxies observed by PHANGS's MUSE. Monthly Notices of the Royal Astronomical Society, 2022, 511, 6087-6109.	4.4	15
44	Interstellar Plunging Waves: ALMA Resolves the Physical Structure of Nonstationary MHD Shocks. Astrophysical Journal Letters, 2019, 881, L42.	8.3	14
45	Multicomponent Kinematics in a Massive Filamentary Infrared Dark Cloud. Astrophysical Journal, 2019, 872, 30.	4.5	14
46	SiO emission as a probe of cloud-cloud collisions in infrared dark clouds. Monthly Notices of the Royal Astronomical Society, 2020, 499, 1666-1681.	4.4	13
47	Linking stellar populations to H II regions across nearby galaxies. Astronomy and Astrophysics, 2022, 662, L6.	5.1	11
48	The Organization of Cloud-scale Gas Density Structure: High-resolution CO versus 3.6 μm Brightness Contrasts in Nearby Galaxies. Astrophysical Journal, 2021, 913, 113.	4.5	10
49	A CO isotopologue Line Atlas within the Whirlpool galaxy Survey (CLAWS). Astronomy and Astrophysics, 2022, 662, A89.	5.1	9
50	SOFIA/FORCAST Galactic Center Legacy Survey: Overview. Astrophysical Journal, 2020, 894, 55.	4.5	8
51	Negative and positive feedback from a supernova remnant with SHREC: a detailed study of the shocked gas in IC443. Monthly Notices of the Royal Astronomical Society, 2022, 511, 953-963.	4.4	8
52	A wind-blown bubble in the Central Molecular Zone cloud G0.253+0.016. Monthly Notices of the Royal Astronomical Society, 2021, 509, 4758-4774.	4.4	7
53	ALMA's IRDC II. First high-angular resolution measurements of the ¹⁴ N/ ¹⁵ N ratio in a large sample of infrared-dark cloud cores. Monthly Notices of the Royal Astronomical Society, 2021, 503, 4320-4335.	4.4	6
54	Astrochemical modelling of infrared dark clouds. Astronomy and Astrophysics, 2022, 662, A39.	5.1	5

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55	The initial conditions for young massive cluster formation in the Galactic Centre: convergence of large-scale gas flows. Monthly Notices of the Royal Astronomical Society, 2022, 514, 578-595.	4.4	5
56	6.7 GHz CH ₃ OH Absorption toward the N3 Galactic Center Point Source. Astrophysical Journal, 2020, 889, 174.	4.5	0