

Iain Mcdonald

List of Publications by Year in descending order

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94433

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61
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100
docs citations

100
times ranked

3602
citing authors

#	ARTICLE	IF	CITATIONS
1	Line-profile tomography of exoplanet transits - II. A gas-giant planet transiting a rapidly rotating A5 star. Monthly Notices of the Royal Astronomical Society, 2010, 407, 507-514.	4.4	242
2	The VST Photometric H α Survey of the Southern Galactic Plane and Bulge (VPHAS+). Monthly Notices of the Royal Astronomical Society, 2014, 440, 2036-3058.	4.4	197
3	The global gas and dust budget of the Large Magellanic Cloud: AGB stars and supernovae, and the impact on the ISM evolution. Monthly Notices of the Royal Astronomical Society, 2009, 396, 918-934.	4.4	176
4	SURVEYING THE AGENTS OF GALAXY EVOLUTION IN THE TIDALLY STRIPPED, LOW METALLICITY SMALL MAGELLANIC CLOUD (SAGE-SMC). I. OVERVIEW. Astronomical Journal, 2011, 142, 102.	4.7	170
5	SURVEYING THE AGENTS OF GALAXY EVOLUTION IN THE TIDALLY STRIPPED, LOW METALLICITY SMALL MAGELLANIC CLOUD (SAGE-SMC). II. COOL EVOLVED STARS. Astronomical Journal, 2011, 142, 103.	4.7	136
6	Obscured asymptotic giant branch variables in the Large Magellanic Cloud and the period-luminosity relation. Monthly Notices of the Royal Astronomical Society, 2003, 342, 86-104.	4.4	131
7	The second data release of the INT Photometric H α Survey of the Northern Galactic Plane (IPHAS DR2). Monthly Notices of the Royal Astronomical Society, 2014, 444, 3230-3257.	4.4	131
8	THE DUST BUDGET OF THE SMALL MAGELLANIC CLOUD: ARE ASYMPTOTIC GIANT BRANCH STARS THE PRIMARY DUST SOURCE AT LOW METALLICITY?. Astrophysical Journal, 2012, 748, 40.	4.5	112
9	Bipolar outflows in OH/IR stars. Monthly Notices of the Royal Astronomical Society, 2001, 322, 280-308.	4.4	110
10	ExELS: an exoplanet legacy science proposal for the ESA Euclid mission. Monthly Notices of the Royal Astronomical Society, 2013, 434, 2-22.	4.4	107
11	Luminosities and mass-loss rates of carbon stars in the Magellanic Clouds. Monthly Notices of the Royal Astronomical Society, 2007, 376, 313-337.	4.4	94
12	The SAGE-Spec Spitzer Legacy programme: the life-cycle of dust and gas in the Large Magellanic Cloud - Point source classification I. Monthly Notices of the Royal Astronomical Society, 2011, 411, 1597-1627.	4.4	93
13	The Magellanic Zoo: Mid-Infrared Spitzer Spectroscopy of Evolved Stars and Circumstellar Dust in the Magellanic Clouds. Astrophysical Journal, 2008, 686, 1056-1081.	4.5	87
14	Fundamental parameters and infrared excesses of Tycho-Gaia stars. Monthly Notices of the Royal Astronomical Society, 2017, 471, 770-791.	4.4	84
15	Mass-loss on the red giant branch: the value and metallicity dependence of Reimers' \dot{M} in globular clusters. Monthly Notices of the Royal Astronomical Society, 2015, 448, 502-521.	4.4	82
16	Giants in the globular cluster ω Centauri: dust production, mass-loss and distance. Monthly Notices of the Royal Astronomical Society, 2009, 394, 831-856.	4.4	80
17	Dust-enshrouded giants in clusters in the Magellanic Clouds. Astronomy and Astrophysics, 2005, 442, 597-613.	5.1	73
18	Spitzer spectroscopy of carbon stars in the Small Magellanic Cloud. Monthly Notices of the Royal Astronomical Society, 2007, 376, 1270-1284.	4.4	67

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19	Dust Formation in a Galaxy with Primitive Abundances. <i>Science</i> , 2009, 323, 353-355.	12.6	61
20	Spitzer observations of acetylene bands in carbon-rich asymptotic giant branch stars in the Large Magellanic Cloud. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 371, 415-420.	4.4	60
21	(Sub)stellar companions shape the winds of evolved stars. <i>Science</i> , 2020, 369, 1497-1500.	12.6	57
22	Three-micron spectra of AGB stars and supergiants in nearby galaxies. <i>Astronomy and Astrophysics</i> , 2005, 434, 691-706.	5.1	56
23	AN INFRARED CENSUS OF DUST IN NEARBY GALAXIES WITH <i>SPITZER</i> (DUSTINGS). II. DISCOVERY OF METAL-POOR DUSTY AGB STARS. <i>Astrophysical Journal</i> , 2015, 800, 51.	4.5	55
24	ALMA observations of the nearby AGB star L ₂ Puppis. <i>Astronomy and Astrophysics</i> , 2016, 596, A92.	5.1	54
25	The close circumstellar environment of Betelgeuse. <i>Astronomy and Astrophysics</i> , 2018, 609, A67.	5.1	54
26	THE CATALOG OF EARTH-LIKE EXOPLANET SURVEY TARGETS (CELESTA): A DATABASE OF HABITABLE ZONES AROUND NEARBY STARS. <i>Astronomical Journal</i> , 2016, 151, 59.	4.7	49
27	Dust, pulsation, chromospheres and their role in driving mass loss from red giants in Galactic globular clusters. <i>Astronomy and Astrophysics</i> , 2007, 476, 1261-1282.	5.1	48
28	<i>SPITZER</i> SPECTROSCOPY OF MASS-LOSS AND DUST PRODUCTION BY EVOLVED STARS IN GLOBULAR CLUSTERS. <i>Astrophysical Journal</i> , 2010, 719, 1274-1292.	4.5	48
29	Carbon chemistry in Galactic bulge planetary nebulae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 414, 1667-1678.	4.4	48
30	The SAGE-Spec Spitzer Legacy program: the life-cycle of dust and gas in the Large Magellanic Cloud. Point source classification III. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 3250-3282.	4.4	47
31	AGB SODIUM ABUNDANCES IN THE GLOBULAR CLUSTER 47 TUCANAE (NGC 104). <i>Astronomical Journal</i> , 2015, 149, 71.	4.7	46
32	The evolution of the Mira variable R Hydrae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 334, 498-510.	4.4	45
33	Very Large Telescope three micron spectra of dust-enshrouded red giants in the Large Magellanic Cloud. <i>Astronomy and Astrophysics</i> , 2006, 447, 971-989.	5.1	42
34	Spitzer Space Telescope spectral observations of AGB stars in the Fornax dwarf spheroidal galaxy. <i>Monthly Notices of the Royal Astronomical Society</i> , 2007, 382, 1889-1900.	4.4	41
35	IS DUST FORMING ON THE RED GIANT BRANCH IN 47 Tuc?. <i>Astrophysical Journal Letters</i> , 2010, 711, L99-L103.	8.3	41
36	<i>Spitzer</i> infrared spectrograph point source classification in the Small Magellanic Cloud. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 451, 3504-3536.	4.4	41

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37	DUST PRODUCTION AND MASS LOSS IN THE GALACTIC GLOBULAR CLUSTER NGC 362. <i>Astrophysical Journal</i> , 2009, 705, 746-757.	4.5	40
38	CARBON-RICH DUST PRODUCTION IN METAL-POOR GALAXIES IN THE LOCAL GROUP. <i>Astrophysical Journal</i> , 2012, 752, 140.	4.5	39
39	Spitzer spectra of evolved stars in ω Centauri and their low-metallicity dust production. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 417, 20-31.	4.4	36
40	The angular diameter of R Doradus: a nearby Mira-like star. <i>Monthly Notices of the Royal Astronomical Society</i> , 1997, 286, 957-962.	4.4	35
41	ALMA sub-mm maser and dust distribution of VY Canis Majoris. <i>Astronomy and Astrophysics</i> , 2014, 572, L9.	5.1	35
42	e-MERLIN resolves Betelgeuse at $\hat{\nu} \approx 5 \text{ \AA}$: hotspots at 5 \AA . <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2013, 432, L61-L65.	3.3	34
43	The first $8 \text{ \AA} \text{--} 13 \text{ \AA}$ spectra of globular cluster red giants: circumstellar silicate dust grains in 47 \AA Tucanae (NGC 104). <i>Astronomy and Astrophysics</i> , 2006, 450, 339-343.	5.1	32
44	<i>Spitzer Space Telescope</i> Evidence in NGC 6791: No Super Mass Loss at Supersolar Metallicity to Explain Helium White Dwarfs?. <i>Astrophysical Journal</i> , 2008, 680, L49-L52.	4.5	31
45	IDENTIFICATION OF A CLASS OF LOW-MASS ASYMPTOTIC GIANT BRANCH STARS STRUGGLING TO BECOME CARBON STARS IN THE MAGELLANIC CLOUDS. <i>Astrophysical Journal</i> , 2015, 810, 116.	4.5	31
46	DUSTINGS. III. DISTRIBUTION OF INTERMEDIATE-AGE AND OLD STELLAR POPULATIONS IN DISKS AND OUTER EXTREMITIES OF DWARF GALAXIES. <i>Astrophysical Journal</i> , 2017, 834, 78.	4.5	31
47	Pulsation-triggered dust production by asymptotic giant branch stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 481, 4984-4999.	4.4	31
48	Betelgeuse Fainter in the Submillimeter Too: An Analysis of JCMT and APEX Monitoring during the Recent Optical Minimum. <i>Astrophysical Journal Letters</i> , 2020, 897, L9.	8.3	31
49	Modelling the alumina abundance of oxygen-rich evolved stars in the Large Magellanic Cloud. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 631-651.	4.4	30
50	The inhomogeneous submillimeter atmosphere of Betelgeuse. <i>Astronomy and Astrophysics</i> , 2017, 602, L10.	5.1	30
51	An Infrared Census of DUST in Nearby Galaxies with Spitzer (DUSTINGS). IV. Discovery of High-redshift AGB Analogs [*] . <i>Astrophysical Journal</i> , 2017, 851, 152.	4.5	29
52	Pre-discovery transits of the exoplanets WASP-18b and WASP-33b from <i>Hipparcos</i> . <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2018, 477, L21-L24.	3.3	28
53	Globular cluster interstellar media: ionized and ejected by white dwarfs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 446, 2226-2242.	4.4	27
54	ALMA observations of the nearby AGB star L ₂ Puppis. <i>Astronomy and Astrophysics</i> , 2017, 601, A5.	5.1	26

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55	The mysterious age invariance of the planetary nebula luminosity function bright cut-off. <i>Nature Astronomy</i> , 2018, 2, 580-584.	10.1	25
56	The onset of the AGB wind tied to a transition between sequences in the period–luminosity diagram. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 484, 4678-4682.	4.4	25
57	The <i>Spitzer</i> spectroscopic survey of S-type stars. <i>Astronomy and Astrophysics</i> , 2012, 540, A72.	5.1	24
58	Reduction of the maximum mass-loss rate of OH/IR stars due to unnoticed binary interaction. <i>Nature Astronomy</i> , 2019, 3, 408-415.	10.1	24
59	Optimizing exoplanet atmosphere retrieval using unsupervised machine-learning classification. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 4492-4508.	4.4	24
60	An Infrared Census of DUST in Nearby Galaxies with <i>Spitzer</i> (DUSTINGS). V. The Period–Luminosity Relation for Dusty Metal-poor AGB Stars. <i>Astrophysical Journal</i> , 2019, 877, 49.	4.5	23
61	Dissecting the AGB star L2Puppis: a torus in the making. <i>Astronomy and Astrophysics</i> , 2015, 576, A46.	5.1	22
62	Carbon enrichment of the evolved stars in the Sagittarius dwarf spheroidal. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 427, 2647-2659.	4.4	21
63	MKTÅJ170456.2–482100: the first transient discovered by MeerkAT. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 491, 560-575.	4.4	20
64	ATOMIUM: A high-resolution view on the highly asymmetric wind of the AGB star ϵ Gruis. <i>Astronomy and Astrophysics</i> , 2020, 644, A61.	5.1	17
65	VISTA variables in the Sagittarius dwarf spheroidal galaxy: pulsation-versus dust-driven winds on the giant branches. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 439, 2618-2637.	4.4	16
66	Near-infrared Stellar Populations in the Metal-poor, Dwarf Irregular Galaxies Sextans A and Leo A. <i>Astrophysical Journal</i> , 2018, 854, 117.	4.5	14
67	ATOMIUM: ALMA tracing the origins of molecules in dust forming oxygen rich M-type stars. <i>Astronomy and Astrophysics</i> , 2022, 660, A94.	5.1	14
68	VISTA's view of the Sagittarius dwarf spheroidal galaxy and southern Galactic Bulge. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 436, 413-429.	4.4	13
69	ATOMIUM: halide molecules around the S-type AGB star W Aquilae. <i>Astronomy and Astrophysics</i> , 2021, 655, A80.	5.1	13
70	EU Del: exploring the onset of pulsation-driven winds in giant stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 456, 4542-4550.	4.4	10
71	Interplay between pulsation, mass loss, and third dredge-up: More about Miras with and without technetium. <i>Astronomy and Astrophysics</i> , 2019, 622, A120.	5.1	10
72	Classification of Planetary Nebulae through Deep Transfer Learning. <i>Galaxies</i> , 2020, 8, 88.	3.0	10

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73	The curious case of IC 3639 : a complex morphology revealed with SAM/NACO and ALMA. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 480, 1006-1021.	4.4	9
74	The Isaac Newton Telescope Monitoring Survey of Local Group Dwarf Galaxies. I. Survey Overview and First Results for Andromeda I. <i>Astrophysical Journal</i> , 2020, 894, 135.	4.5	9
75	Circumstellar CO in metal-poor stellar winds: the highly irradiated globular cluster star 47 Tucanae V3. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2019, 484, L85-L89.	3.3	7
76	High-resolution $\text{H}\alpha$ imaging of the northern Galactic plane and the IGAPS image database. <i>Astronomy and Astrophysics</i> , 2021, 655, A49.	5.1	7
77	The detection of radio emission from known X-ray flaring star EXO 040830-7134.7. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 510, 1083-1092.	4.4	7
78	Discovery of long-period variable stars in the very metal-poor globular cluster M15. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	4.4	6
79	Exoplanetary atmosphere target selection in the era of comparative planetology. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	6
80	The Isaac Newton Telescope Monitoring Survey of Local Group Dwarf Galaxies. IV. The Star Formation History of Andromeda VII Derived from Long-period Variable Stars. <i>Astrophysical Journal</i> , 2021, 910, 127.	4.5	6
81	A Census of Thermally Pulsing AGB Stars in the Andromeda Galaxy and a First Estimate of Their Contribution to the Global Dust Budget. <i>Astrophysical Journal, Supplement Series</i> , 2022, 259, 41.	7.7	6
82	A 1D fluid model of the Centaurus A jet. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	5
83	<i>Kepler K2</i> Campaign 9 I. Candidate short-duration events from the first space-based survey for planetary microlensing. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 505, 5584-5602.	4.4	5
84	Stellar Pulsation and the Production of Dust and Molecules in Galactic Carbon Stars. <i>Astrophysical Journal</i> , 2019, 887, 82.	4.5	5
85	The Nearby Evolved Stars Survey II: Constructing a volume-limited sample and first results from the James Clerk Maxwell Telescope. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 1091-1110.	4.4	5
86	Flickering in AGB stars: probing the nature of accreting companions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 477, 4200-4212.	4.4	4
87	The nearby evolved stars survey I. JCMT/SCUBA-2 submillimetre detection of the detached shell of U Antliae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 489, 3218-3231.	4.4	4
88	Asymptotic Giant Branch Stars in the Nearby Dwarf Galaxy Leo P*. <i>Astrophysical Journal</i> , 2019, 884, 152.	4.5	4
89	Circumstellar CO $J = 3 \rightarrow 2$ detected around the evolving metal-poor ($[\text{Fe}/\text{H}] \sim -1.15$ dex) AGB star RU Vulpeculae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 491, 1174-1189.	4.4	4
90	First deep images catalogue of extended IPHAS PNe. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 508, 1599-1617.	4.4	4

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91	Determination of Rotation Periods for a Large Sample of Asteroids from the K2 Campaign 9. <i>Astrophysical Journal, Supplement Series</i> , 2021, 255, 4.	7.7	3
92	Infrared variable stars in the compact elliptical galaxy M32. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 565-575.	4.4	2
93	Improved Models of Coalescence Ages of Y-DNA Haplogroups. <i>Genes</i> , 2021, 12, 862.	2.4	2
94	Metallicity, pulsation and mass loss in globular cluster low-mass AGB stars. , 2009, , .		0
95	Sir Bernard Lovell (1913â€“2012). <i>Science</i> , 2012, 337, 1307-1307.	12.6	0
96	Comparative Studies of the Dust around Red Supergiant and Oxygen-Rich Asymptotic Giant Branch Stars in the Local Universe. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 470-471.	0.0	0
97	The onset of mass loss in AGB stars. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 464-465.	0.0	0
98	The End: Witnessing the Death of Extreme Carbon Stars. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 305-308.	0.0	0
99	Near-Infrared Stellar Populations in the metal-poor, Dwarf irregular Galaxies Sextans A and Leo A. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 429-430.	0.0	0
100	Does 3rd dredge-up reduce AGB mass-loss?. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 529-530.	0.0	0