

D John Hillier

List of Publications by Year in descending order

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126
papers

6,891
citations

53794

45
h-index

58581

82
g-index

126
all docs

126
docs citations

126
times ranked

2550
citing authors

#	ARTICLE	IF	CITATIONS
1	The Treatment of Non-LTE Line Blanketing in Spherically Expanding Outflows. <i>Astrophysical Journal</i> , 1998, 496, 407-427.	4.5	864
2	On the Nature of the Central Source in $\hat{\iota}$ Carinae. <i>Astrophysical Journal</i> , 2001, 553, 837-860.	4.5	283
3	Quantitative Spectroscopy of O Stars at Low Metallicity: O Dwarfs in NGC 346. <i>Astrophysical Journal</i> , 2003, 595, 1182-1205.	4.5	224
4	Constraints on the Evolution of Massive Stars through Spectral Analysis. I. The WC5 Star HD 165763. <i>Astrophysical Journal</i> , 1999, 519, 354-371.	4.5	214
5	Lower mass loss rates in O-type stars: Spectral signatures of dense clumps in the wind of two Galactic O4 stars. <i>Astronomy and Astrophysics</i> , 2005, 438, 301-316.	5.1	187
6	Core-collapse explosions of Wolf-Rayet stars and the connection to Type IIb/IIc supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 414, 2985-3005.	4.4	171
7	Latitude-dependent Effects in the Stellar Wind of $\hat{\iota}$ Carinae. <i>Astrophysical Journal</i> , 2003, 586, 432-450.	4.5	160
8	Stellar and wind properties of LMC WC4 stars. <i>Astronomy and Astrophysics</i> , 2002, 392, 653-669.	5.1	159
9	Revised Stellar Temperatures for Magellanic Cloud O Supergiants from Far Ultraviolet Spectroscopic Explorer and Very Large Telescope UV-Visual Echelle Spectrograph Spectroscopy. <i>Astrophysical Journal</i> , 2002, 579, 774-799.	4.5	159
10	On the nature of supernovae Ib and Ic. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 424, 2139-2159.	4.4	157
11	A Tale of Two Stars: The Extreme O7 Iaf+ Supergiant AV 83 and the OC7.5 III((f)) star AV 69. <i>Astrophysical Journal</i> , 2003, 588, 1039-1063.	4.5	153
12	Type II-Plateau supernova radiation: dependences on progenitor and explosion properties. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 433, 1745-1763.	4.4	143
13	Distance determinations using type II supernovae and the expanding photosphere method. <i>Astronomy and Astrophysics</i> , 2005, 439, 671-685.	5.1	135
14	Using Quantitative Spectroscopic Analysis to Determine the Properties and Distances of Type II Plateau Supernovae: SN 2005cs and SN 2006bp. <i>Astrophysical Journal</i> , 2008, 675, 644-669.	4.5	118
15	Quantitative spectroscopy of photospheric-phase type II supernovae. <i>Astronomy and Astrophysics</i> , 2005, 437, 667-685.	5.1	115
16	WC stars - Hot stars with cold winds. <i>Astrophysical Journal</i> , 1989, 347, 392.	4.5	115
17	The Shape and Orientation of the Homunculus Nebula Based on Spectroscopic Velocities. <i>Astronomical Journal</i> , 2001, 121, 1569-1577.	4.7	114
18	Modeling the extended atmospheres of WN stars. <i>Astrophysical Journal</i> , Supplement Series, 1987, 63, 947.	7.7	106

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19	SN 1994W: an interacting supernova or two interacting shells?. Monthly Notices of the Royal Astronomical Society, 2009, 394, 21-37.	4.4	105
20	Radiative properties of pair-instability supernova explosions. Monthly Notices of the Royal Astronomical Society, 2013, 428, 3227-3251.	4.4	104
21	Quantitative analysis of WC stars: constraints on neon abundances from ISO-SWS spectroscopy. Monthly Notices of the Royal Astronomical Society, 2000, 315, 407-422.	4.4	101
22	One-dimensional delayed-detonation models of Type Ia supernovae: confrontation to observations at bolometric maximum. Monthly Notices of the Royal Astronomical Society, 2013, 429, 2127-2142.	4.4	99
23	Time-dependent radiative transfer calculations for supernovae. Monthly Notices of the Royal Astronomical Society, 2012, 424, 252-271.	4.4	98
24	METALLICITY IN THE GALACTIC CENTER: THE QUINTUPLET CLUSTER. Astrophysical Journal, 2009, 691, 1816-1827.	4.5	90
25	Direct measurement of the size and shape of the present-day stellar wind of η -Carinae. Astronomy and Astrophysics, 2003, 410, L37-L40.	5.1	86
26	The UV Scattering Halo of the Central Source Associated with η -Carinae. Astrophysical Journal, 2006, 642, 1098-1116.	4.5	84
27	Near-infrared interferometry of η -Carinae with spectral resolutions of 1 500 and 12 000 using AMBER/VLTI. Astronomy and Astrophysics, 2007, 464, 87-106.	5.1	82
28	Constraints on the explosion mechanism and progenitors of Type Ia supernovae. Monthly Notices of the Royal Astronomical Society, 2014, 441, 532-550.	4.4	79
29	Quantitative spectroscopic analysis of and distance to SN1999em. Astronomy and Astrophysics, 2006, 447, 691-707.	5.1	79
30	Evidence for sub-Chandrasekhar-mass progenitors of Type Ia supernovae at the faint end of the width-luminosity relation. Monthly Notices of the Royal Astronomical Society, 2017, 470, 157-165.	4.4	75
31	η -Carinae across the 2003.5 Minimum: Spectroscopic Evidence for Massive Binary Interactions. Astrophysical Journal, 2007, 660, 669-686.	4.5	74
32	Measuring nickel masses in Type Ia supernovae using cobalt emission in nebular phase spectra. Monthly Notices of the Royal Astronomical Society, 2015, 454, 3816-3842.	4.4	72
33	The formation of nitrogen and carbon emission lines in HD 50896 (WN5). Astrophysical Journal, 1988, 327, 822.	4.5	71
34	Time-dependent effects in photospheric-phase Type II supernova spectra. Monthly Notices of the Royal Astronomical Society, 0, 383, 57-74.	4.4	66
35	A multispectral view of the periodic events in η -Carinae. Monthly Notices of the Royal Astronomical Society, 2008, 386, 2330-2344.	4.4	65
36	On the influence of the companion star in Eta Carinae: 2D radiative transfer modelling of the ultraviolet and optical spectra.... Monthly Notices of the Royal Astronomical Society, 2012, 423, 1623-1640.	4.4	65

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37	Explosion of red-supergiant stars: Influence of the atmospheric structure on shock breakout and early-time supernova radiation. <i>Astronomy and Astrophysics</i> , 2017, 605, A83.	5.1	63
38	Kinematics and Ultraviolet to Infrared Morphology of the Inner Homunculus of $\hat{\imath}$ -Carinae. <i>Astrophysical Journal</i> , 2004, 605, 405-424.	4.5	61
39	Physical Parameters of Erupting Luminous Blue Variables: NGC 2363â€V1 Caught in the Act. <i>Astrophysical Journal</i> , 2001, 546, 484-495.	4.5	60
40	Tailored Analyses of the WN 8 Stars WR 40 and WR 16. <i>Astrophysical Journal</i> , 2001, 548, 932-952.	4.5	59
41	A MODERN SEARCH FOR WOLF-RAYET STARS IN THE MAGELLANIC CLOUDS: FIRST RESULTS. <i>Astrophysical Journal</i> , 2014, 788, 83.	4.5	58
42	A Change in the Physical State of $\hat{\imath}$ -Carinae?. <i>Astronomical Journal</i> , 2005, 129, 900-906.	4.7	56
43	Critical ingredients of Type Ia supernova radiative-transfer modelling. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 441, 3249-3270.	4.4	51
44	The sub-arcsecond dusty environment of Eta Carinae. <i>Astronomy and Astrophysics</i> , 2005, 435, 1043-1061.	5.1	50
45	Spectroscopic Effects of Rotation in Extended Stellar Atmospheres. <i>Astronomical Journal</i> , 2005, 129, 454-465.	4.7	48
46	The extended interacting wind structure of Eta Carinae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 396, 1308-1328.	4.4	48
47	Models of interacting supernovae and their spectral diversity. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 2094-2121.	4.4	44
48	Synthetic line and continuum linear-polarization signatures of axisymmetric Type II supernova ejecta. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 415, 3497-3519.	4.4	43
49	Non-local Thermodynamic Equilibrium Radiative Transfer Simulations of Sub-Chandrasekhar-mass White Dwarf Detonations. <i>Astrophysical Journal Letters</i> , 2021, 909, L18.	8.3	43
50	Type II Plateau supernovae as metallicity probes of the Universe. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 1856-1864.	4.4	41
51	THE HD 5980 MULTIPLE SYSTEM: MASSES AND EVOLUTIONARY STATUS. <i>Astronomical Journal</i> , 2014, 148, 62.	4.7	40
52	Photometric and spectroscopic diversity of Type II supernovae. <i>Astronomy and Astrophysics</i> , 2019, 631, A8.	5.1	40
53	A BAKE-OFF BETWEEN CMFGEN AND FASTWIND: MODELING THE PHYSICAL PROPERTIES OF SMC AND LMC O-TYPE STARS. <i>Astrophysical Journal</i> , 2013, 768, 6.	4.5	39
54	A one-dimensional Chandrasekhar-mass delayed-detonation model for the broad-lined Type Ia supernova 2002bo. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 448, 2766-2797.	4.4	39

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55	On the sensitivity of He I singlet lines to the Fe IV model atom in O stars. <i>Astronomy and Astrophysics</i> , 2006, 456, 659-664.	5.1	38
56	Non-LTE time-dependent spectroscopic modelling of Type II-plateau supernovae from the photospheric to the nebular phase: case study for 15 and 25 M_{\odot} progenitor stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	4.4	35
57	Non-thermal excitation and ionization in supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 426, 1671-1686.	4.4	35
58	$\hat{\iota}$ Carinae's Dusty Homunculus Nebula from Near-infrared to Submillimeter Wavelengths: Mass, Composition, and Evidence for Fading Opacity. <i>Astrophysical Journal</i> , 2017, 842, 79.	4.5	35
59	On the Importance of the Interclump Medium for Superionization: O $\langle \text{sc} \rangle \text{vi} \langle / \text{sc} \rangle$ Formation in the Wind of $\hat{\iota}$ Puppis. <i>Astrophysical Journal</i> , 2008, 685, L149-L152.	4.5	33
60	A study of the low-luminosity Type II-Plateau supernova 2008bk. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 466, 34-48.	4.4	33
61	The difficulty of inferring progenitor masses from type-II-Plateau supernova light curves. <i>Astronomy and Astrophysics</i> , 2019, 625, A9.	5.1	33
62	Supernova radiative-transfer modelling: a new approach using non-local thermodynamic equilibrium and full time dependence. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , .	4.4	32
63	Progenitors of low-luminosity Type II-Plateau supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 473, 3863-3881.	4.4	32
64	A $\hat{\iota}$ 40 YEAR VARIABILITY CYCLE IN THE LUMINOUS BLUE VARIABLE/WOLF-RAYET BINARY SYSTEM HD 5980?. <i>Astronomical Journal</i> , 2010, 139, 2600-2611.	4.7	31
65	The 2014 X-Ray Minimum of $\hat{\iota}$ Carinae as Seen by Swift. <i>Astrophysical Journal</i> , 2017, 838, 45.	4.5	30
66	Detection of high-velocity material from the wind-wind collision zone of Eta Carinae across the 2009.0 periastron passage. <i>Astronomy and Astrophysics</i> , 2010, 517, A9.	5.1	29
67	Ejecta mass diagnostics of Type Ia supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 3187-3211.	4.4	28
68	The detonation of a sub-Chandrasekhar-mass white dwarf at the origin of the low-luminosity Type Ia supernova 1999by. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 3931-3953.	4.4	28
69	The fossil wind structures of Eta Carinae: changes across one 5.54-yr cycle. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, 3196-3220.	4.4	27
70	The Evolution and Physical Parameters of WN3/O3s: A New Type of Wolf-Rayet Star [*] . <i>Astrophysical Journal</i> , 2017, 841, 20.	4.5	27
71	Modeling the signatures of interaction in Type II supernovae: UV emission, high-velocity features, broad-boxy profiles. <i>Astronomy and Astrophysics</i> , 2022, 660, L9.	5.1	27
72	WIND STRUCTURE AND LUMINOSITY VARIATIONS IN THE WOLF-RAYET/LUMINOUS BLUE VARIABLE HD 5980. <i>Astronomical Journal</i> , 2011, 142, 191.	4.7	26

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73	[Co III] versus Na I D in Type Ia supernova spectra. Monthly Notices of the Royal Astronomical Society, 2014, 439, 3114-3120.	4.4	25
74	Impact of clumping on core-collapse supernova radiation. Astronomy and Astrophysics, 2018, 619, A30.	5.1	25
75	A COMPANION AS THE CAUSE OF LATITUDE-DEPENDENT EFFECTS IN THE WIND OF ETA CARINAE. Astrophysical Journal Letters, 2012, 759, L2.	8.3	24
76	The influence of rotation on optical emission profiles of O stars. Monthly Notices of the Royal Astronomical Society, 2012, 426, 1043-1049.	4.4	22
77	To <i>v</i> and beyond! The He ϵ absorption variability across the 2014.6 periastron passage of $\hat{\iota}$ Carinae. Monthly Notices of the Royal Astronomical Society, 2016, 461, 2540-2558.	4.4	20
78	Distinguishing circumstellar from stellar photometric variability in Eta Carinae. Monthly Notices of the Royal Astronomical Society, 2019, 484, 1325-1346.	4.4	19
79	Understanding nebular spectra of Type Ia supernovae. Monthly Notices of the Royal Astronomical Society, 2020, 494, 2221-2235.	4.4	18
80	The explosion of $9\hat{\epsilon}^{29}M$ stars as Type II supernovae: Results from radiative-transfer modeling at one year after explosion. Astronomy and Astrophysics, 2021, 652, A64.	5.1	17
81	Theory of Wolf-Rayet Atmospheres. , 1991, , 59-74.		17
82	Stable nickel production in type Ia supernovae: A smoking gun for the progenitor mass?. Astronomy and Astrophysics, 2022, 660, A96.	5.1	16
83	WO-type Wolf-Rayet Stars: The Last Hurrah of Massive Star Evolution*. Astrophysical Journal, 2022, 931, 157.	4.5	15
84	Supernovae from blue supergiant progenitors: What a mess!. Astronomy and Astrophysics, 2019, 622, A70.	5.1	14
85	Mid-infrared evolution of $\hat{\iota}$ Carinae from 1968 to 2018. Astronomy and Astrophysics, 2019, 630, L6.	5.1	13
86	A Changing Wind Collision ^{$\hat{\iota}$} . Astrophysical Journal, 2018, 853, 164.	4.5	12
87	BRITE-Constellation reveals evidence for pulsations in the enigmatic binary $\hat{\iota}$ Carinae. Monthly Notices of the Royal Astronomical Society, 2018, 475, 5417-5423.	4.4	11
88	UV Spectroscopy of Massive Stars. Galaxies, 2020, 8, 60.	3.0	11
89	Multiepoch VLT-FORS spectropolarimetric observations of supernova 2012aw reveal an asymmetric explosion. Astronomy and Astrophysics, 2021, 651, A19.	5.1	10
90	The enigmatic binary system HD 5980. Monthly Notices of the Royal Astronomical Society, 2019, 486, 725-742.	4.4	9

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91	Spectroscopic signatures of the vanishing natural coronagraph of Eta Carinae. Monthly Notices of the Royal Astronomical Society, 2021, 505, 963-978.	4.4	9
92	Radiative-transfer modeling of supernovae in the nebular-phase. Astronomy and Astrophysics, 2020, 643, L13.	5.1	9
93	The atomic physics underlying the spectroscopic analysis of massive stars and supernovae. Astrophysics and Space Science, 2011, 336, 87-93.	1.4	7
94	BAT99-9 – a WC4 Wolf-Rayet star with nitrogen emission: evidence for binary evolution?. Monthly Notices of the Royal Astronomical Society, 2021, 503, 2726-2732.	4.4	7
95	The Physical Parameters of Four WC-type Wolf-Rayet Stars in the Large Magellanic Cloud: Evidence of Evolution*. Astrophysical Journal, 2022, 924, 44.	4.5	7
96	Solving the $\hat{\Gamma}^3$ -ray radiative transfer equation for supernovae. Monthly Notices of the Royal Astronomical Society, 2019, 487, 1218-1226.	4.4	6
97	Hot Stars with Winds: The CMFGEN Code. Proceedings of the International Astronomical Union, 2011, 7, 229-234.	0.0	5
98	On the changes in the physical properties of the ionized region around the Weigelt structures in $\hat{\Gamma}$ -Carinae over the 5.54-yr spectroscopic cycle. Monthly Notices of the Royal Astronomical Society, 2020, 495, 2754-2770.	4.4	4
99	Using Shell models to investigate clumping in the wind of the O7Iaf+ supergiant AzV83. Monthly Notices of the Royal Astronomical Society, 2021, 504, 311-325.	4.4	4
100	Eta Carinae: A Tale of Two Periastron Passages. Astrophysical Journal, 2021, 923, 102.	4.5	4
101	Eta Carinae: An Evolving View of the Central Binary, Its Interacting Winds and Its Foreground Ejecta. Astrophysical Journal, 2022, 933, 175.	4.5	4
102	Unlocking the secrets of supernovae through their light curves, spectra & polarization. High Energy Density Physics, 2013, 9, 297-302.	1.5	3
103	A High-velocity Scatterer Revealed in the Thinning Ejecta of a Type II Supernova. Astrophysical Journal Letters, 2021, 921, L35.	8.3	3
104	The neon abundance in WC stars. II. ISO-SWS spectroscopy of WR 90 (HD 156385). Symposium - International Astronomical Union, 1999, 193, 233-234.	0.1	1
105	Advances in modeling of Wolf-Rayet stars. Symposium - International Astronomical Union, 2003, 212, 70-79.	0.1	1
106	Non-LTE model for the wind of the NGC 6543 central star. Proceedings of the International Astronomical Union, 2006, 2, 401.	0.0	1
107	What Do We Really Know About the Winds of Massive Stars?. Proceedings of the International Astronomical Union, 2007, 3, 89-96.	0.0	1
108	Radiation Driven Stellar Winds. , 2009, , .		1

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109	A New Class of Wolf-Rayet Stars: WN3/O3s. Proceedings of the International Astronomical Union, 2014, 9, 64-69.	0.0	1
110	The Massive stellar Population at the Galactic Center. Proceedings of the International Astronomical Union, 2016, 12, 287-291.	0.0	1
111	Status of Wolf-Rayet models. Symposium - International Astronomical Union, 1995, 163, 116-126.	0.1	0
112	X-ray emission from Wolf-Rayet stars: Pointed ROSAT PSPC observations of nine single WN stars. Symposium - International Astronomical Union, 1995, 163, 174-175.	0.1	0
113	The evolutionary status of WNL stars. Symposium - International Astronomical Union, 1995, 163, 147-151.	0.1	0
114	Ejected nebulae as probe of Wolf-Rayet Lyman-continua. Symposium - International Astronomical Union, 1999, 193, 380-381.	0.1	0
115	Metal abundances in the Galactic Center. Symposium - International Astronomical Union, 1999, 193, 491-492.	0.1	0
116	Line-blanketing in massive stars: new results. Symposium - International Astronomical Union, 1999, 193, 129-137.	0.1	0
117	The extreme P-Cygni star HDE 316285. Symposium - International Astronomical Union, 1999, 193, 246-247.	0.1	0
118	Spectroscopic studies of OB stars in the Magellanic Clouds with VLT-UVES. Symposium - International Astronomical Union, 2003, 212, 176-177.	0.1	0
119	Quantitative Analysis of O-Type Stars Properties, at Low Metallicity. Symposium - International Astronomical Union, 2003, 212, 156-157.	0.1	0
120	Time-dependence Effects in Photospheric Phase Type II Supernova Spectra. , 2007, , .		0
121	Time-dependent Effects in Supernova Spectra. , 2007, , .		0
122	Massive Stars in the Galactic Center. Proceedings of the International Astronomical Union, 2007, 3, 257-264.	0.0	0
123	Modeling Supernova Spectra. Proceedings of the International Astronomical Union, 2011, 7, 251-252.	0.0	0
124	Combined modelling of the He2-131 planetary nebula and of its central star. Proceedings of the International Astronomical Union, 2011, 7, 306-307.	0.0	0
125	The Massive Star Population at the Center of the Milky Way. Proceedings of the International Astronomical Union, 2014, 9, 426-430.	0.0	0
126	The Evolutionary Status of WN3/O3 Wolf-Rayet Stars. Proceedings of the International Astronomical Union, 2016, 12, 176-180.	0.0	0