

Luc Dessart

List of Publications by Year in descending order

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40
papers

4,191
citations

186265

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315739

38
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docs citations

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times ranked

3676
citing authors

#	ARTICLE	IF	CITATIONS
1	MODULES FOR EXPERIMENTS IN STELLAR ASTROPHYSICS (MESA): BINARIES, PULSATIONS, AND EXPLOSIONS. <i>Astrophysical Journal, Supplement Series</i> , 2015, 220, 15.	7.7	1,990
2	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
3	On the nature of supernovae Ib and Ic. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 424, 2139-2159.	4.4	157
4	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
5	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
6	Type Ib and IIb Supernova Progenitors in Interacting Binary Systems. <i>Astrophysical Journal</i> , 2017, 840, 10.	4.5	109
7	SN 1994W: an interacting supernova or two interacting shells?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 394, 21-37.	4.4	105
8	Radiative properties of pair-instability supernova explosions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 428, 3227-3251.	4.4	104
9	Time-dependent radiative transfer calculations for supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 424, 252-271.	4.4	98
10	Type II Supernova Spectral Diversity. I. Observations, Sample Characterization, and Spectral Line Evolution*. <i>Astrophysical Journal</i> , 2017, 850, 89.	4.5	87
11	Determining the main-sequence mass of Type II supernova progenitors. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 408, 827-840.	4.4	86
12	Constraints on the explosion mechanism and progenitors of Type Ia supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 441, 532-550.	4.4	79
13	Evidence for sub-Chandrasekhar-mass progenitors of Type Ia supernovae at the faint end of the width-luminosity relation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 157-165.	4.4	75
14	Radiative-transfer models for supernovae IIb/IIc from binary-star progenitors. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 453, 2189-2213.	4.4	73
15	Inferring supernova IIb/IIc ejecta properties from light curves and spectra: correlations from radiative-transfer models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 1618-1635.	4.4	69
16	Time-dependent effects in photospheric-phase Type II supernova spectra. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, 383, 57-74.	4.4	66
17	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
18	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

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19	Type II Supernova Spectral Diversity. II. Spectroscopic and Photometric Correlations. <i>Astrophysical Journal</i> , 2017, 850, 90.	4.5	48
20	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
21	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
22	Photometric and spectroscopic diversity of Type II supernovae. <i>Astronomy and Astrophysics</i> , 2019, 631, A8.	5.1	40
23	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
24	Simulations of light curves and spectra for superluminous Type Ic supernovae powered by magnetars. <i>Astronomy and Astrophysics</i> , 2019, 621, A141.	5.1	35
25	Radiative-transfer models for explosions from rotating and non-rotating single WC stars. <i>Astronomy and Astrophysics</i> , 2017, 603, A51.	5.1	34
26	Supernovae Ib and Ic from the explosion of helium stars. <i>Astronomy and Astrophysics</i> , 2020, 642, A106.	5.1	34
27	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
28	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
29	Shock-heating of stellar envelopes: a possible common mechanism at the origin of explosions and eruptions in massive stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	4.4	30
30	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
31	ZTF Early Observations of Type Ia Supernovae. III. Early-time Colors As a Test for Explosion Models and Multiple Populations. <i>Astrophysical Journal</i> , 2020, 902, 48.	4.5	26
32	Type Ib/Ic Supernovae: Effect of Nickel Mixing on the Early-time Color Evolution and Implications for the Progenitors. <i>Astrophysical Journal</i> , 2019, 872, 174.	4.5	24
33	Supernovae from massive stars with extended tenuous envelopes. <i>Astronomy and Astrophysics</i> , 2018, 612, A61.	5.1	20
34	Understanding nebular spectra of Type Ia supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 2221-2235.	4.4	18
35	Super-luminous Type II supernovae powered by magnetars. <i>Astronomy and Astrophysics</i> , 2018, 613, A5.	5.1	12
36	Direct Evidence of Two-component Ejecta in Supernova 2016gkg from Nebular Spectroscopy*. <i>Astrophysical Journal</i> , 2020, 902, 139.	4.5	6

#	ARTICLE	IF	CITATIONS
37	A High-velocity Scatterer Revealed in the Thinning Ejecta of a Type II Supernova. <i>Astrophysical Journal Letters</i> , 2021, 921, L35.	8.3	3
38	On the Explosion Geometry of Red Supergiant Stars. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 458-458.	0.0	2
39	Magnetic Massive Stars. <i>Proceedings of the International Astronomical Union</i> , 2007, 3, 577-586.	0.0	1
40	Thoughts on Core-Collapse Supernova Theory. <i>Proceedings of the International Astronomical Union</i> , 2007, 3, 185-192.	0.0	0