

Claudio Dalla Vecchia

List of Publications by Year in descending order

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118
papers

16,267
citations

28190

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122
all docs

122
docs citations

122
times ranked

6453
citing authors

#	ARTICLE	IF	CITATIONS
1	The EAGLE project: simulating the evolution and assembly of galaxies and their environments. Monthly Notices of the Royal Astronomical Society, 2015, 446, 521-554.	1.6	2,549
2	The EAGLE simulations of galaxy formation: calibration of subgrid physics and model variations. Monthly Notices of the Royal Astronomical Society, 2015, 450, 1937-1961.	1.6	1,038
3	Dark matter halo concentrations in the Wilkinson Microwave Anisotropy Probe year 5 cosmology. Monthly Notices of the Royal Astronomical Society: Letters, 2008, 390, L64-L68.	1.2	740
4	The physics driving the cosmic star formation history. Monthly Notices of the Royal Astronomical Society, 2010, 402, 1536-1560.	1.6	704
5	Chemical enrichment in cosmological, smoothed particle hydrodynamics simulations. Monthly Notices of the Royal Astronomical Society, 2009, 399, 574-600.	1.6	525
6	On the relation between the Schmidt and Kennicutt-Schmidt star formation laws and its implications for numerical simulations. Monthly Notices of the Royal Astronomical Society, 0, 383, 1210-1222.	1.6	521
7	The APOSTLE simulations: solutions to the Local Group's cosmic puzzles. Monthly Notices of the Royal Astronomical Society, 2016, 457, 1931-1943.	1.6	453
8	Simulating galactic outflows with thermal supernova feedback. Monthly Notices of the Royal Astronomical Society, 2012, 426, 140-158.	1.6	437
9	The eagle simulations of galaxy formation: Public release of halo and galaxy catalogues. Astronomy and Computing, 2016, 15, 72-89.	0.8	394
10	The Aquila comparison project: the effects of feedback and numerical methods on simulations of galaxy formation. Monthly Notices of the Royal Astronomical Society, 2012, 423, 1726-1749.	1.6	381
11	Simulating galactic outflows with kinetic supernova feedback. Monthly Notices of the Royal Astronomical Society, 2008, 387, 1431-1444.	1.6	359
12	The effects of galaxy formation on the matter power spectrum: a challenge for precision cosmology. Monthly Notices of the Royal Astronomical Society, 2011, 415, 3649-3665.	1.6	344
13	Evolution of galaxy stellar masses and star formation rates in the eagle simulations. Monthly Notices of the Royal Astronomical Society, 2015, 450, 4486-4504.	1.6	332
14	Baryon effects on the internal structure of Λ CDM haloes in the EAGLE simulations. Monthly Notices of the Royal Astronomical Society, 2015, 451, 1247-1267.	1.6	302
15	The rates and modes of gas accretion on to galaxies and their gaseous haloes. Monthly Notices of the Royal Astronomical Society, 2011, 414, 2458-2478.	1.6	264
16	Cosmological simulations of the formation of the stellar haloes around disc galaxies. Monthly Notices of the Royal Astronomical Society, 2011, 416, 2802-2820.	1.6	232
17	The impact of angular momentum on black hole accretion rates in simulations of galaxy formation. Monthly Notices of the Royal Astronomical Society, 2015, 454, 1038-1057.	1.6	219
18	Galaxies and intergalactic medium interaction calculation I. Galaxy formation as a function of large-scale environment. Monthly Notices of the Royal Astronomical Society, 2009, 399, 1773-1794.	1.6	216

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19	The origin of discs and spheroids in simulated galaxies. Monthly Notices of the Royal Astronomical Society, 2012, 423, 1544-1555.	1.6	215
20	Ubiquitous seeding of supermassive black holes by direct collapse. Monthly Notices of the Royal Astronomical Society, 2012, 425, 2854-2871.	1.6	202
21	Conditions for Reionizing the Universe with a Low Galaxy Ionizing Photon Escape Fraction. Astrophysical Journal, 2019, 879, 36.	1.6	201
22	Colours and luminosities of $z \sim 0.1$ galaxies in the eagle simulation. Monthly Notices of the Royal Astronomical Society, 2015, 452, 2879-2896.	1.6	200
23	The eagle simulations of galaxy formation: the importance of the hydrodynamics scheme. Monthly Notices of the Royal Astronomical Society, 2015, 454, 2277-2291.	1.6	192
24	Gas expulsion by quasar-driven winds as a solution to the overcooling problem in galaxy groups and clusters. Monthly Notices of the Royal Astronomical Society, 2011, 412, 1965-1984.	1.6	185
25	Molecular hydrogen abundances of galaxies in the EAGLE simulations. Monthly Notices of the Royal Astronomical Society, 2015, 452, 3815-3837.	1.6	182
26	The Cluster-EAGLE project: global properties of simulated clusters with resolved galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 471, 1088-1106.	1.6	178
27	The First Billion Years project: the escape fraction of ionizing photons in the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2015, 451, 2544-2563.	1.6	172
28	The Hydrangea simulations: galaxy formation in and around massive clusters. Monthly Notices of the Royal Astronomical Society, 2017, 470, 4186-4208.	1.6	167
29	Bent by baryons: the low-mass galaxy-halo relation. Monthly Notices of the Royal Astronomical Society, 2015, 448, 2941-2947.	1.6	163
30	Implementation of feedback in smoothed particle hydrodynamics: towards concordance of methods. Monthly Notices of the Royal Astronomical Society, 2012, 419, 465-478.	1.6	162
31	The First Billion Years project: the impact of stellar radiation on the co-evolution of Populations II and III. Monthly Notices of the Royal Astronomical Society, 2013, 428, 1857-1872.	1.6	155
32	The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Cosmological implications of the configuration-space clustering wedges. Monthly Notices of the Royal Astronomical Society, 2017, 464, 1640-1658.	1.6	143
33	The impact of galaxy formation on the total mass, mass profile and abundance of haloes. Monthly Notices of the Royal Astronomical Society, 2014, 442, 2641-2658.	1.6	137
34	Impact of baryon physics on dark matter structures: a detailed simulation study of halo density profiles. Monthly Notices of the Royal Astronomical Society, 2010, , no-no.	1.6	135
35	Feedback and the structure of simulated galaxies at redshift $z = 2$. Monthly Notices of the Royal Astronomical Society, 2010, 409, 1541-1556.	1.6	131
36	The distribution of atomic hydrogen in eagle galaxies: morphologies, profiles, and $H\alpha$ holes. Monthly Notices of the Royal Astronomical Society, 2016, 456, 1115-1136.	1.6	117

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37	THROUGH THICK AND THIN ^H I ABSORPTION IN COSMOLOGICAL SIMULATIONS. <i>Astrophysical Journal Letters</i> , 2011, 737, L37.	3.0	115
38	The impact of baryons on the spins and shapes of dark matter haloes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 429, 3316-3329.	1.6	114
39	The alignment and shape of dark matter, stellar, and hot gas distributions in the EAGLE and cosmo-OWLS simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 453, 721-738.	1.6	108
40	The case for AGN feedback in galaxy groups. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , no-no.	1.6	105
41	Simulations of Magnetic Fields in Filaments. <i>Astrophysical Journal</i> , 2005, 631, L21-L24.	1.6	102
42	The drop in the cosmic star formation rate below redshift 2 is caused by a change in the mode of gas accretion and by active galactic nucleus feedback. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 415, 2782-2789.	1.6	101
43	Gaussian covariance matrices for anisotropic galaxy clustering measurements. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 1577-1592.	1.6	96
44	The First Billion Years project: birthplaces of direct collapse black holes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 443, 648-657.	1.6	92
45	Quenching cluster cooling flows with recurrent hot plasma bubbles. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 355, 995-1004.	1.6	87
46	Supermassive black holes in the EAGLE Universe. Revealing the observables of their growth. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, 190-205.	1.6	84
47	The impact of baryonic processes on the two-point correlation functions of galaxies, subhaloes and matter. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 2997-3010.	1.6	82
48	The effect of baryons on the inner density profiles of rich clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 452, 343-355.	1.6	80
49	Barred galaxies in the EAGLE cosmological hydrodynamical simulation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, 1054-1064.	1.6	66
50	The connection between mass, environment, and slow rotation in simulated galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 476, 4327-4345.	1.6	65
51	nFTy galaxy cluster simulations â€” I. Dark matter and non-radiative models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 4063-4080.	1.6	63
52	Comparing approximate methods for mock catalogues and covariance matrices â€” I. Correlation function. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 482, 1786-1806.	1.6	63
53	The diverse density profiles of galaxy clusters with self-interacting dark matter plus baryons. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2018, 476, L20-L24.	1.2	62
54	The fate of high-redshift massive compact galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 1916-1930.	1.6	61

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55	Physical properties of simulated galaxy populations at $z = 2$. I. Effect of metal-line cooling and feedback from star formation and AGN. Monthly Notices of the Royal Astronomical Society, 2013, 435, 2931-2954.	1.6	59
56	The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Cosmological implications of the Fourier space wedges of the final sample. Monthly Notices of the Royal Astronomical Society, 0, , stw3384.	1.6	58
57	The First Billion Years project: constraining the dust attenuation law of star-forming galaxies at $z \approx 5$. Monthly Notices of the Royal Astronomical Society, 2017, 470, 3006-3026.	1.6	58
58	Comparing approximate methods for mock catalogues and covariance matrices III: bispectrum. Monthly Notices of the Royal Astronomical Society, 2019, 482, 4883-4905.	1.6	55
59	The Aurora radiation-hydrodynamical simulations of reionization: calibration and first results. Monthly Notices of the Royal Astronomical Society, 2017, 466, 960-973.	1.6	54
60	Absorption signatures of warm-hot gas at low redshift: O VI. Monthly Notices of the Royal Astronomical Society, 2011, 413, 190-212.	1.6	53
61	Comparing approximate methods for mock catalogues and covariance matrices II: power spectrum multipoles. Monthly Notices of the Royal Astronomical Society, 2019, 485, 2806-2824.	1.6	53
62	The enrichment history of cosmic metals. Monthly Notices of the Royal Astronomical Society, 2010, 409, 132-144.	1.6	50
63	Spatially adaptive radiation-hydrodynamical simulations of galaxy formation during cosmological reionization. Monthly Notices of the Royal Astronomical Society, 2015, 451, 1586-1605.	1.6	49
64	The Spectral Evolution of the First Galaxies. III. Simulated James Webb Space Telescope Spectra of Reionization-epoch Galaxies with Lyman-continuum Leakage. Astrophysical Journal, 2017, 836, 78.	1.6	48
65	Absorption signatures of warm-hot gas at low redshift: broad Ly α absorbers. Monthly Notices of the Royal Astronomical Society, 2012, 425, 1640-1663.	1.6	47
66	Disruption of satellite galaxies in simulated groups and clusters: the roles of accretion time, baryons, and pre-processing. Monthly Notices of the Royal Astronomical Society, 2019, 485, 2287-2311.	1.6	47
67	Rotation rates, sizes and star formation efficiencies of a representative population of simulated disc galaxies. Monthly Notices of the Royal Astronomical Society, 2012, 427, 379-392.	1.6	44
68	The correlation structure of dark matter halo properties. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 415, L69-L73.	1.2	41
69	The filling factor of intergalactic metals at redshift $z = 3$. Monthly Notices of the Royal Astronomical Society, 2012, 420, 1053-1060.	1.6	41
70	The impact of different physical processes on the statistics of Lyman-limit and damped Lyman α absorbers. Monthly Notices of the Royal Astronomical Society, 2013, 436, 2689-2707.	1.6	40
71	Metal-line emission from the warm-hot intergalactic medium - I. Soft X-rays. Monthly Notices of the Royal Astronomical Society, 2010, 407, 544-566.	1.6	39
72	nIFTy galaxy cluster simulations IV. Quantifying the influence of baryons on halo properties. Monthly Notices of the Royal Astronomical Society, 2016, 458, 4052-4073.	1.6	39

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73	A numerical study of interactions and stellar bars. Monthly Notices of the Royal Astronomical Society, 2017, 464, 1502-1511.	1.6	39
74	Sub one per cent mass fractions of young stars in red massive galaxies. Nature Astronomy, 2020, 4, 252-259.	4.2	36
75	The intracluster light as a tracer of the total matter density distribution: a view from simulations. Monthly Notices of the Royal Astronomical Society, 2020, 494, 1859-1864.	1.6	34
76	The VANDELS survey: dust attenuation in star-forming galaxies at $z = 3-4$. Monthly Notices of the Royal Astronomical Society, 2018, 476, 3218-3232.	1.6	33
77	The Cluster-EAGLE project: velocity bias and the velocity dispersion-mass relation of cluster galaxies. Monthly Notices of the Royal Astronomical Society, 2018, 474, 3746-3759.	1.6	33
78	A measurement of galaxy halo mass from the surrounding $H\alpha$ Ly α absorption. Monthly Notices of the Royal Astronomical Society, 2013, 433, 3103-3114.	1.6	31
79	Metal-line emission from the warm-hot intergalactic medium - II. Ultraviolet. Monthly Notices of the Royal Astronomical Society, 2010, 408, 1120-1138.	1.6	29
80	Influence of baryons on the orbital structure of dark matter haloes. Monthly Notices of the Royal Astronomical Society, 2012, 422, 1863-1879.	1.6	29
81	Growth of First Galaxies: Impacts of Star Formation and Stellar Feedback. Astrophysical Journal, 2017, 846, 30.	1.6	28
82	Hydrodynamical simulations and semi-analytic models of galaxy formation: two sides of the same coin. Monthly Notices of the Royal Astronomical Society, 2012, 421, 3579-3593.	1.6	27
83	Physical properties of simulated galaxy populations at $z = 2$ - II. Effects of cosmology, reionization and ISM physics. Monthly Notices of the Royal Astronomical Society, 2013, 435, 2955-2967.	1.6	27
84	A cosmological context for compact massive galaxies. Monthly Notices of the Royal Astronomical Society, 2015, 449, 2396-2404.	1.6	26
85	Deep spectroscopy of nearby galaxy clusters - I. Spectroscopic luminosity function of Abell 85. Monthly Notices of the Royal Astronomical Society, 2016, 458, 1590-1603.	1.6	26
86	Growing a "cosmic beast": observations and simulations of MACSJ0717.5+3745. Monthly Notices of the Royal Astronomical Society, 2018, 481, 2901-2917.	1.6	25
87	The origin of extended disc galaxies at $z = 2$. Monthly Notices of the Royal Astronomical Society: Letters, 2009, 399, L64-L68.	1.2	23
88	Stellar splashback: the edge of the intracluster light. Monthly Notices of the Royal Astronomical Society, 2020, 500, 4181-4192.	1.6	22
89	FOREVER22: galaxy formation in protocluster regions. Monthly Notices of the Royal Astronomical Society, 2021, 509, 4037-4057.	1.6	21
90	Kinematic analysis of eagle simulations: evolution of \hat{r}_{Re} and its connection with mergers and gas accretion. Monthly Notices of the Royal Astronomical Society, 2020, 494, 5652-5665.	1.6	20

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91	Formation of the first galaxies in the aftermath of the first supernovae. Monthly Notices of the Royal Astronomical Society, 2021, 508, 3226-3238.	1.6	20
92	The Origin of the Relation between Metallicity and Size in Star-forming Galaxies. Astrophysical Journal, 2018, 859, 109.	1.6	19
93	Modelling neutral hydrogen in galaxies using cosmological hydrodynamical simulations. Monthly Notices of the Royal Astronomical Society, 2012, , no-no.	1.6	18
94	The First Billion Years project: dark matter haloes going from contraction to expansion and back again. Monthly Notices of the Royal Astronomical Society, 2014, 443, 985-1001.	1.6	17
95	Deep spectroscopy in nearby galaxy clusters – III. Orbital structure of galaxies in Abell 85. Monthly Notices of the Royal Astronomical Society, 2017, 468, 364-377.	1.6	17
96	On the Dearth of Ultra-faint Extremely Metal-poor Galaxies. Astrophysical Journal, 2017, 835, 159.	1.6	15
97	Constraining the inner density slope of massive galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2020, 496, 4717-4733.	1.6	15
98	Galaxies with monstrous black holes in galaxy cluster environments. Monthly Notices of the Royal Astronomical Society, 2019, 485, 396-407.	1.6	14
99	The Cluster-EAGLE project: a comparison of dynamical mass estimators using simulated clusters. Monthly Notices of the Royal Astronomical Society, 2019, 482, 3308-3325.	1.6	14
100	The First Billion Years project: gamma-ray bursts at $z > 5$. Monthly Notices of the Royal Astronomical Society, 2015, 446, 4239-4249.	1.6	13
101	One simulation to have them all: performance of the Bias Assignment Method against N-body simulations. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	13
102	The discovery of the most UV λ Ly \pm luminous star-forming galaxy: a young, dust- and metal-poor starburst with QSO-like luminosities. Monthly Notices of the Royal Astronomical Society: Letters, 2020, 499, L105-L110.	1.2	13
103	The First Billion Years project: Finding infant globular clusters at $z = 6$. Astronomy and Astrophysics, 2020, 641, A132.	2.1	12
104	Evaluating hydrodynamical simulations with green valley galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 502, 3685-3702.	1.6	11
105	Testing the conditional mass function of dark matter haloes against numerical N-body simulations. Monthly Notices of the Royal Astronomical Society, 2017, 467, 3424-3442.	1.6	9
106	The signal of decaying dark matter with hydrodynamical simulations. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4071-4089.	1.6	9
107	Deep spectroscopy in nearby galaxy clusters – V. The Perseus cluster. Monthly Notices of the Royal Astronomical Society, 2020, 494, 1681-1692.	1.6	9
108	Predicted future fate of COSMOS galaxy protoclusters over 11%Gyr with constrained simulations. Nature Astronomy, 2022, 6, 857-865.	4.2	8

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109	History of the gas fuelling star formation in <sc>eagle</sc> galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 505, 4655-4668.	1.6	7
110	Galactic wind X-ray heating of the intergalactic medium during the Epoch of Reionization. Monthly Notices of the Royal Astronomical Society, 2017, 471, 3632-3645.	1.6	6
111	Signatures of the Galactic bar on stellar kinematics unveiled by APOGEE. Monthly Notices of the Royal Astronomical Society, 2018, 478, 1231-1243.	1.6	6
112	A case study of hurdle and generalized additive models in astronomy: the escape of ionizing radiation. Monthly Notices of the Royal Astronomical Society, 2019, 483, 3307-3321.	1.6	6
113	Higher order Hamiltonian Monte Carlo sampling for cosmological large-scale structure analysis. Monthly Notices of the Royal Astronomical Society, 2021, 502, 3976-3992.	1.6	3
114	Signatures of the Galactic bar in high-order moments of proper motions measured by Gaia. Astronomy and Astrophysics, 2020, 634, A90.	2.1	2
115	Non-instantaneous gas recycling and chemical evolution in N-body disk galaxies. Astrophysics and Space Science, 2004, 289, 441-444.	0.5	1
116	The growth of the stellar seeds of supermassive black holes. , 2012, , .		0
117	The First Billion Years simulation project. Galactic outflows and metal enrichment. Proceedings of the International Astronomical Union, 2012, 8, 17-20.	0.0	0
118	The evolution of the luminosity function faint end of cluster galaxies in the Cluster-EAGLE simulation. Proceedings of the International Astronomical Union, 2018, 14, 495-497.	0.0	0