

Christoph Federrath

List of Publications by Year in descending order

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171
papers

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28274

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171
all docs

171
docs citations

171
times ranked

4399
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparing the statistics of interstellar turbulence in simulations and observations. <i>Astronomy and Astrophysics</i> , 2010, 512, A81.	5.1	631
2	THE STAR FORMATION RATE OF TURBULENT MAGNETIZED CLOUDS: COMPARING THEORY, SIMULATIONS, AND OBSERVATIONS. <i>Astrophysical Journal</i> , 2012, 761, 156.	4.5	553
3	The Density Probability Distribution in Compressible Isothermal Turbulence: Solenoidal versus Compressive Forcing. <i>Astrophysical Journal</i> , 2008, 688, L79-L82.	4.5	418
4	MODELING COLLAPSE AND ACCRETION IN TURBULENT GAS CLOUDS: IMPLEMENTATION AND COMPARISON OF SINK PARTICLES IN AMR AND SPH. <i>Astrophysical Journal</i> , 2010, 713, 269-290.	4.5	335
5	ON THE STAR FORMATION EFFICIENCY OF TURBULENT MAGNETIZED CLOUDS. <i>Astrophysical Journal</i> , 2013, 763, 51.	4.5	295
6	A NEW JEANS RESOLUTION CRITERION FOR (M)HD SIMULATIONS OF SELF-GRAVITATING GAS: APPLICATION TO MAGNETIC FIELD AMPLIFICATION BY GRAVITY-DRIVEN TURBULENCE. <i>Astrophysical Journal</i> , 2011, 731, 62.	4.5	274
7	Cluster-formation in the Rosette molecular cloud at the junctions of filaments. <i>Astronomy and Astrophysics</i> , 2012, 540, L11.	5.1	267
8	<scp>Phantom</scp>: A Smoothed Particle Hydrodynamics and Magnetohydrodynamics Code for Astrophysics. <i>Publications of the Astronomical Society of Australia</i> , 2018, 35, .	3.4	267
9	On the universality of supersonic turbulence. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 436, 1245-1257.	4.4	230
10	Mach Number Dependence of Turbulent Magnetic Field Amplification: Solenoidal versus Compressive Flows. <i>Physical Review Letters</i> , 2011, 107, 114504.	7.8	194
11	WHAT DETERMINES THE DENSITY STRUCTURE OF MOLECULAR CLOUDS? A CASE STUDY OF ORION B WITH <i>HERSCHEL</i>. <i>Astrophysical Journal Letters</i> , 2013, 766, L17.	8.3	194
12	The density variance-Mach number relation in supersonic turbulence - I. Isothermal, magnetized gas. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 423, 2680-2689.	4.4	179
13	Inefficient star formation through turbulence, magnetic fields and feedback. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 450, 4035-4042.	4.4	177
14	THE FRACTAL DENSITY STRUCTURE IN SUPERSONIC ISOTHERMAL TURBULENCE: SOLENOIDAL VERSUS COMPRESSIVE ENERGY INJECTION. <i>Astrophysical Journal</i> , 2009, 692, 364-374.	4.5	175
15	Numerical simulations of compressively driven interstellar turbulence. <i>Astronomy and Astrophysics</i> , 2009, 494, 127-145.	5.1	172
16	THE GENERATION OF STRONG MAGNETIC FIELDS DURING THE FORMATION OF THE FIRST STARS. <i>Astrophysical Journal Letters</i> , 2010, 721, L134-L138.	8.3	159
17	Importance of the initial conditions for star formation - I. Cloud evolution and morphology. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 413, 2741-2759.	4.4	153
18	On the universality of interstellar filaments: theory meets simulations and observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 375-388.	4.4	142

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19	MODELING JET AND OUTFLOW FEEDBACK DURING STAR CLUSTER FORMATION. <i>Astrophysical Journal</i> , 2014, 790, 128.	4.5	139
20	A robust numerical scheme for highly compressible magnetohydrodynamics: Nonlinear stability, implementation and tests. <i>Journal of Computational Physics</i> , 2011, 230, 3331-3351.	3.8	137
21	THE LINK BETWEEN TURBULENCE, MAGNETIC FIELDS, FILAMENTS, AND STAR FORMATION IN THE CENTRAL MOLECULAR ZONE CLOUD G0.253+0.016. <i>Astrophysical Journal</i> , 2016, 832, 143.	4.5	134
22	THE DENSITY VARIANCEâ€“MACH NUMBER RELATION IN SUPERSONIC, ISOTHERMAL TURBULENCE. <i>Astrophysical Journal Letters</i> , 2011, 727, L21.	8.3	127
23	Modelling CO formation in the turbulent interstellar medium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , .	4.4	126
24	THE SMALL-SCALE DYNAMO AND NON-IDEAL MAGNETOHYDRODYNAMICS IN PRIMORDIAL STAR FORMATION. <i>Astrophysical Journal</i> , 2012, 754, 99.	4.5	119
25	COMPARING NUMERICAL METHODS FOR ISOTHERMAL MAGNETIZED SUPERSONIC TURBULENCE. <i>Astrophysical Journal</i> , 2011, 737, 13.	4.5	105
26	Unfolding the Laws of Star Formation: The Density Distribution of Molecular Clouds. <i>Science</i> , 2014, 344, 183-185.	12.6	104
27	Magnetic field amplification in turbulent astrophysical plasmas. <i>Journal of Plasma Physics</i> , 2016, 82, .	2.1	103
28	A comparison between grid and particle methods on the statistics of driven, supersonic, isothermal turbulence. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , no-no.	4.4	99
29	The Role of Magnetic Fields in Setting the Star Formation Rate and the Initial Mass Function. <i>Frontiers in Astronomy and Space Sciences</i> , 2019, 6, .	2.8	95
30	THE TURBULENT DYNAMO IN HIGHLY COMPRESSIBLE SUPERSONIC PLASMAS. <i>Astrophysical Journal Letters</i> , 2014, 797, L19.	8.3	94
31	The link between molecular cloud structure and turbulence. <i>Astronomy and Astrophysics</i> , 2011, 529, A1.	5.1	92
32	A NEW DENSITY VARIANCEâ€“MACH NUMBER RELATION FOR SUBSONIC AND SUPERSONIC ISOTHERMAL TURBULENCE. <i>Astrophysical Journal</i> , 2012, 761, 149.	4.5	92
33	Understanding star formation in molecular clouds. <i>Astronomy and Astrophysics</i> , 2015, 575, A79.	5.1	91
34	Is the Scaling of Supersonic Turbulence Universal?. <i>Physical Review Letters</i> , 2008, 101, 194505.	7.8	90
35	THE TURBULENCE SPECTRUM OF MOLECULAR CLOUDS IN THE GALACTIC RING SURVEY: A DENSITY-DEPENDENT PRINCIPAL COMPONENT ANALYSIS CALIBRATION. <i>Astrophysical Journal</i> , 2011, 740, 120.	4.5	89
36	The SAMI Galaxy Survey: spatially resolving the main sequence of star formation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 475, 5194-5214.	4.4	89

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37	The turbulent formation of stars. <i>Physics Today</i> , 2018, 71, 38-42.	0.3	87
38	The density structure and star formation rate of non-isothermal polytropic turbulence. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 448, 3297-3313.	4.4	85
39	Algorithmic comparisons of decaying, isothermal, supersonic turbulence. <i>Astronomy and Astrophysics</i> , 2009, 508, 541-560.	5.1	81
40	A method for reconstructing the variance of a 3D physical field from 2D observations: application to turbulence in the interstellar medium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 403, 1507-1515.	4.4	78
41	Magnetic field amplification by small-scale dynamo action: Dependence on turbulence models and Reynolds and Prandtl numbers. <i>Physical Review E</i> , 2012, 85, 026303.	2.1	78
42	The SAMI Galaxy Survey: Data Release Two with absorption-line physics value-added products. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 481, 2299-2319.	4.4	73
43	The sonic scale of interstellar turbulence. <i>Nature Astronomy</i> , 2021, 5, 365-371.	10.1	73
44	Star formation in the first galaxies - I. Collapse delayed by Lyman-Werner radiation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 426, 1159-1177.	4.4	72
45	The SAMI Galaxy Survey: global stellar populations on the size-mass plane. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 2833-2855.	4.4	72
46	The origin of physical variations in the star formation law. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 436, 3167-3172.	4.4	71
47	Understanding star formation in molecular clouds. <i>Astronomy and Astrophysics</i> , 2015, 578, A29.	5.1	70
48	The KMOS Redshift One Spectroscopic Survey (KROSS): the origin of disc turbulence in $z \sim 1$ star-forming galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 5076-5104.	4.4	70
49	Magnetic field amplification during gravitational collapse - influence of turbulence, rotation and gravitational compression. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 423, 3148-3162.	4.4	68
50	The SAMI Galaxy Survey: Data Release One with emission-line physics value-added products. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 475, 716-734.	4.4	65
51	The SAMI Galaxy Survey: Quenching of Star Formation in Clusters I. Transition Galaxies. <i>Astrophysical Journal</i> , 2019, 873, 52.	4.5	63
52	A UNIVERSAL, TURBULENCE-REGULATED STAR FORMATION LAW: FROM MILKY WAY CLOUDS TO HIGH-REDSHIFT DISK AND STARBURST GALAXIES. <i>Astrophysical Journal Letters</i> , 2015, 806, L36.	8.3	61
53	A method for reconstructing the PDF of a 3D turbulent density field from 2D observations. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2010, 405, L56-L60.	3.3	59
54	Filament formation in wind-cloud interactions - I. Spherical clouds in uniform magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 455, 1309-1333.	4.4	59

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55	The density varianceâ€“Mach number relation in isothermal and non-isothermal adiabatic turbulence. Monthly Notices of the Royal Astronomical Society, 2015, 451, 1380-1389.	4.4	58
56	Saturation of the turbulent dynamo. Physical Review E, 2015, 92, 023010.	2.1	55
57	Connection between dense gas mass fraction, turbulence driving, and star formation efficiency of molecular clouds. Astronomy and Astrophysics, 2013, 553, L8.	5.1	53
58	Statistical properties of supersonic turbulence in the Lagrangian and Eulerian frameworks. Journal of Fluid Mechanics, 2012, 692, 183-206.	3.4	49
59	The importance of magnetic fields for the initial mass function of the first stars. Monthly Notices of the Royal Astronomical Society, 2020, 497, 336-351.	4.4	49
60	Modelling H2 formation in the turbulent interstellar medium: solenoidal versus compressive turbulent forcing. Monthly Notices of the Royal Astronomical Society, 2012, 421, 2531-2542.	4.4	47
61	The small-scale dynamo: breaking universality at high Mach numbers. New Journal of Physics, 2013, 15, 023017.	2.9	42
62	Filament formation in windâ€“cloud interactionsâ€“ II. Clouds with turbulent density, velocity, and magnetic fields. Monthly Notices of the Royal Astronomical Society, 2018, 473, 3454-3489.	4.4	41
63	The SAMI Galaxy Survey: observing the environmental quenching of star formation in GAMA groups. Monthly Notices of the Royal Astronomical Society, 2019, 483, 2851-2870.	4.4	38
64	A MEASUREMENT OF THE TURBULENCE-DRIVEN DENSITY DISTRIBUTION IN A NON-STAR-FORMING MOLECULAR CLOUD. Astrophysical Journal, 2013, 779, 50.	4.5	37
65	The SAMI Galaxy Survey: energy sources of the turbulent velocity dispersion in spatially resolved local star-forming galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 470, 4573-4582.	4.4	37
66	The physics of gas phase metallicity gradients in galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5935-5961.	4.4	36
67	COLLECTIVE OUTFLOW FROM A SMALL MULTIPLE STELLAR SYSTEM. Astrophysical Journal, 2014, 788, 14.	4.5	35
68	Testing star formation laws in a starburst galaxy at redshift 3 resolved with ALMA. Monthly Notices of the Royal Astronomical Society, 2018, 477, 4380-4390.	4.4	35
69	Numerical calibration of the HCNâ€“star formation correlation. Monthly Notices of the Royal Astronomical Society, 2018, 479, 1702-1710.	4.4	35
70	On the effective turbulence driving mode of molecular clouds formed in disc galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 469, 383-393.	4.4	34
71	The reliability of observational measurements of column density probability distribution functions. Astronomy and Astrophysics, 2016, 590, A104.	5.1	29
72	Magnetic field amplification in accretion discs around the first stars: implications for the primordial IMF. Monthly Notices of the Royal Astronomical Society, 2021, 503, 2014-2032.	4.4	29

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73	On the shape and completeness of the column density probability distribution function of molecular clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 482, 5233-5240.	4.4	28
74	The Launching of Cold Clouds by Galaxy Outflows. III. The Influence of Magnetic Fields. <i>Astrophysical Journal</i> , 2020, 892, 59.	4.5	28
75	The SAMI Galaxy Survey: a new method to estimate molecular gas surface densities from star formation rates. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 468, 3965-3978.	4.4	26
76	Relationship between turbulence energy and density variance in the solar neighbourhood molecular clouds. <i>Astronomy and Astrophysics</i> , 2017, 608, L3.	5.1	26
77	On the dynamics and survival of fractal clouds in galactic winds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 4526-4544.	4.4	26
78	Impact of relativistic jets on the star formation rate: a turbulence-regulated framework. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 508, 4738-4757.	4.4	26
79	Binary star formation and the outflows from their discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 1626-1641.	4.4	25
80	Turbulence in stratified atmospheres: implications for the intracluster medium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 493, 5838-5853.	4.4	25
81	The Most Ancient Spiral Galaxy: A 2.6-Gyr-old Disk with a Tranquil Velocity Field. <i>Astrophysical Journal</i> , 2017, 850, 61.	4.5	24
82	The SAMI galaxy survey: gas velocity dispersions in low-z star-forming galaxies and the drivers of turbulence. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 2265-2284.	4.4	24
83	The Single-cloud Star Formation Relation. <i>Astrophysical Journal Letters</i> , 2021, 912, L19.	8.3	24
84	Turbulent density and pressure fluctuations in the stratified intracluster medium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 500, 5072-5087.	4.4	24
85	Velocity structure functions in multiphase turbulence: interpreting kinematics of H α filaments in cool-core clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 510, 2327-2343.	4.4	24
86	A comparison between grid and particle methods on the small-scale dynamo in magnetized supersonic turbulence. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 461, 1260-1275.	4.4	23
87	An observational method to measure the relative fractions of solenoidal and compressible modes in interstellar clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 442, 1451-1469.	4.4	22
88	The effect of photoionizing feedback on star formation in isolated and colliding clouds. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	2.5	22
89	On the origin of the mass-metallicity gradient relation in the local Universe. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 53-64.	4.4	22
90	The driving of turbulence in simulations of molecular cloud formation and evolution. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 2496-2503.	4.4	21

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91	The SAMI Galaxy Survey: gas content and interaction as the drivers of kinematic asymmetry. Monthly Notices of the Royal Astronomical Society, 2018, 476, 2339-2351.	4.4	21
92	Chronostar: a novel Bayesian method for kinematic age determination. I. Derivation and application to the $\dot{\rho}^2$ Pictoris moving group. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	21
93	Seed magnetic fields in turbulent small-scale dynamos. Monthly Notices of the Royal Astronomical Society, 2020, 499, 2076-2086.	4.4	21
94	The relation between the turbulent Mach number and observed fractal dimensions of turbulent clouds. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2493-2502.	4.4	20
95	Magnetic field fluctuations in anisotropic, supersonic turbulence. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1593-1608.	4.4	20
96	Magnetic fields in the Milky Way from pulsar observations: effect of the correlation between thermal electrons and magnetic fields. Monthly Notices of the Royal Astronomical Society, 2021, 502, 2220-2237.	4.4	20
97	The density structure of supersonic self-gravitating turbulence. Monthly Notices of the Royal Astronomical Society, 2021, 507, 4335-4351.	4.4	20
98	Shockâ€™multicloud interactions in galactic outflows â€™ II. Radiative fractal clouds and cold gas thermodynamics. Monthly Notices of the Royal Astronomical Society, 2021, 506, 5658-5680.	4.4	20
99	Compressible Turbulence in the Interstellar Medium: New Insights from a High-resolution Supersonic Turbulence Simulation. Astrophysical Journal, 2020, 904, 160.	4.5	20
100	Converging on the Initial Mass Function of Stars. Journal of Physics: Conference Series, 2017, 837, 012007.	0.4	19
101	Molecular cloud formation by compression of magnetized turbulent gas subjected to radiative cooling. Monthly Notices of the Royal Astronomical Society, 2020, 493, 3098-3113.	4.4	19
102	Filaments and striations: anisotropies in observed, supersonic, highly magnetized turbulent clouds. Monthly Notices of the Royal Astronomical Society, 2020, 492, 668-685.	4.4	19
103	On the compressive nature of turbulence driven by ionizing feedback in the pillars of the Carina Nebula. Monthly Notices of the Royal Astronomical Society, 2020, 500, 1721-1740.	4.4	19
104	Saturation mechanism of the fluctuation dynamo in supersonic turbulent plasmas. Physical Review Fluids, 2021, 6, .	2.5	19
105	Multiplicity of disc-bearing stars in Upper Scorpius and Upper Centaurus-Lupus. Monthly Notices of the Royal Astronomical Society, 2018, 480, 5099-5112.	4.4	18
106	The role of initial magnetic field structure in the launching of protostellar jets. Monthly Notices of the Royal Astronomical Society, 2019, 485, 5532-5542.	4.4	18
107	On the turbulence driving mode of expanding Hâ€™ii regions. Monthly Notices of the Royal Astronomical Society, 2020, 493, 4643-4656.	4.4	18
108	The IMF and multiplicity of stars from gravity, turbulence, magnetic fields, radiation, and outflow feedback. Monthly Notices of the Royal Astronomical Society, 2021, 507, 2448-2467.	4.4	18

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109	Turbulent dynamo in the two-phase interstellar medium. Monthly Notices of the Royal Astronomical Society, 2022, 514, 957-976.	4.4	18
110	Nonlinear closures for scale separation in supersonic magnetohydrodynamic turbulence. New Journal of Physics, 2015, 17, 023070.	2.9	17
111	Through thick or thin: multiple components of the magneto-ionic medium towards the nearby HÜii region Sharpless 2ã27 revealed by Faraday tomography. Monthly Notices of the Royal Astronomical Society, 2019, 487, 4751-4767.	4.4	17
112	Testing star formation laws on spatially resolved regions in a $z \hat{=} 4.3$ starburst galaxy. Monthly Notices of the Royal Astronomical Society, 2019, 487, 4305-4312.	4.4	17
113	The role of the H2 adiabatic index in the formation of the first stars. Monthly Notices of the Royal Astronomical Society, 2019, 490, 513-526.	4.4	17
114	A multishock model for the density variance of anisotropic, highly magnetized, supersonic turbulence. Monthly Notices of the Royal Astronomical Society, 2021, 504, 4354-4368.	4.4	17
115	SHOCKFIND - an algorithm to identify magnetohydrodynamic shock waves in turbulent clouds. Monthly Notices of the Royal Astronomical Society, 2016, 463, 1026-1039.	4.4	16
116	Quantifying the effects of spatial resolution and noise on galaxy metallicity gradients. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3819-3838.	4.4	16
117	Efficient Highly Subsonic Turbulent Dynamo and Growth of Primordial Magnetic Fields. Physical Review Letters, 2021, 126, 091103.	7.8	16
118	The link between solenoidal turbulence and slow star formation in G0.253+0.016. Proceedings of the International Astronomical Union, 2016, 11, 123-128.	0.0	15
119	Star formation in simulated galaxies: understanding the transition to quiescence at $3 \text{--} 1010 \hat{=} \text{M}\hat{=} \text{M}^{\text{TM}}$. Monthly Notices of the Royal Astronomical Society, 2017, 469, 4249-4257.	4.4	15
120	Compression of turbulent magnetized gas in giant molecular clouds. Monthly Notices of the Royal Astronomical Society, 2018, 473, 2144-2159.	4.4	15
121	Implementation of stellar heating feedback in simulations of star cluster formation: effects on the initial mass function. Monthly Notices of the Royal Astronomical Society, 2020, 496, 5201-5210.	4.4	15
122	The role of turbulence, magnetic fields and feedback for star formation. Journal of Physics: Conference Series, 2016, 719, 012002.	0.4	14
123	The role of turbulence during the formation of circumbinary discs. Monthly Notices of the Royal Astronomical Society, 2019, 486, 3647-3663.	4.4	14
124	The Effects of Magnetic Fields and Outflow Feedback on the Shape and Evolution of the Density Probability Distribution Function in Turbulent Star-forming Clouds. Astrophysical Journal, 2022, 927, 75.	4.5	14
125	Probes of turbulent driving mechanisms in molecular clouds from fluctuations in synchrotron intensity. Monthly Notices of the Royal Astronomical Society, 2017, 466, 2272-2283.	4.4	13
126	The relation between the true and observed fractal dimensions of turbulent clouds. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2070-2081.	4.4	13

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127	Principal component analysis of molecular clouds: can CO reveal the dynamics?. Monthly Notices of the Royal Astronomical Society, 2014, 440, 465-475.	4.4	12
128	Centrifugally driven winds from protostellar accretion discs â€“ I. Formulation and initial results. Monthly Notices of the Royal Astronomical Society, 2017, 471, 1488-1505.	4.4	12
129	A new method for probing magnetic field strengths from striations in the interstellar medium. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	12
130	Shockâ€™multicloud interactions in galactic outflows â€“ I. Cloud layers with lognormal density distributions. Monthly Notices of the Royal Astronomical Society, 2020, 499, 2173-2195.	4.4	12
131	The Catalogue for Astrophysical Turbulence Simulations (CATS). Astrophysical Journal, 2020, 905, 14.	4.5	12
132	The dependence of episodic accretion on eccentricity during the formation of binary stars. Astronomy and Astrophysics, 2020, 641, A59.	5.1	12
133	The velocity statistics of turbulent clouds in the presence of gravity, magnetic fields, radiation, and outflow feedback. Monthly Notices of the Royal Astronomical Society, 2022, 513, 2100-2110.	4.4	12
134	Determining Star Formation Thresholds from Observations. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	11
135	Testing the turbulent origin of the stellar initial mass function. Monthly Notices of the Royal Astronomical Society, 2021, 503, 1138-1148.	4.4	11
136	Structure and kinematics of shocked gas in Sgr B2: further evidence of a cloudâ€™cloud collision from SiO emission maps. Monthly Notices of the Royal Astronomical Society, 2020, 499, 4918-4939.	4.4	11
137	The SAMI Galaxy Survey: Bayesian inference for gas disc kinematics using a hierarchical Gaussian mixture model. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4024-4044.	4.4	10
138	Magnetic fields during high redshift structure formation. Astronomische Nachrichten, 2013, 334, 531-536.	1.2	9
139	Fundamental scales in the kinematic phase of the turbulent dynamo. Monthly Notices of the Royal Astronomical Society, 2022, 513, 2457-2470.	4.4	9
140	Rest-frame UV and optical emission line diagnostics of ionized gas properties: a test case in a star-forming knot of a lensed galaxy at $z \approx 1.7$. Monthly Notices of the Royal Astronomical Society, 2019, 488, 5862-5886.	4.4	8
141	Magnetic Field Tomography in Two Clouds toward Ursa Major Using H i Fibers. Astrophysical Journal, 2019, 873, 38.	4.5	8
142	Magnetic Fields in Elliptical Galaxies: An Observational Probe of the Fluctuation Dynamo Action. Astrophysical Journal, 2021, 907, 2.	4.5	8
143	Cluster-formation in the Rosette molecular cloud at the junctions of filaments (Corrigendum). Astronomy and Astrophysics, 2013, 551, C1.	5.1	8
144	VETTAM: a scheme for radiation hydrodynamics with adaptive mesh refinement using the variable Eddington tensor method. Monthly Notices of the Royal Astronomical Society, 2022, 512, 401-423.	4.4	8

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145	A new method for measuring the 3D turbulent velocity dispersion of molecular clouds. Monthly Notices of the Royal Astronomical Society, 2021, 509, 5237-5252.	4.4	8
146	Characterizing the turbulent multiphase haloes with periodic box simulations. Monthly Notices of the Royal Astronomical Society, 2022, 510, 3778-3793.	4.4	8
147	High-resolution survey for planetary companions to young stars in the Taurus molecular cloud. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1382-1396.	4.4	7
148	The role of gas kinematics in setting metallicity gradients at high redshift. Monthly Notices of the Royal Astronomical Society, 2021, 506, 1295-1308.	4.4	7
149	The dependence of the hierarchical distribution of star clusters on galactic environment. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5542-5566.	4.4	7
150	X-raying molecular clouds with a short flare: probing statistics of gas density and velocity fields. Monthly Notices of the Royal Astronomical Society, 2020, 495, 1414-1432.	4.4	6
151	Non-ideal magnetohydrodynamic simulations of subcritical pre-stellar cores with non-equilibrium chemistry. Monthly Notices of the Royal Astronomical Society, 2022, 510, 4420-4435.	4.4	6
152	Tiny grains shining bright in the gaps of Herbig Ae transitional discs. Monthly Notices of the Royal Astronomical Society, 2019, 486, 3721-3740.	4.4	5
153	Reconstructing three-dimensional densities from two-dimensional observations of molecular gas. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5997-6009.	4.4	5
154	Multiphase turbulence in galactic haloes: effect of the driving. Monthly Notices of the Royal Astronomical Society, 2022, 514, 3139-3159.	4.4	5
155	Solenoidal versus compressive turbulence forcing. Proceedings of the International Astronomical Union, 2009, 5, 404-404.	0.0	4
156	Ghost of a Shell: Magnetic Fields of Galactic Supershell GSH 006 ⁺ 15 +7. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	4
157	Constraints on Planets in Nearby Young Moving Groups Detectable by High-Contrast Imaging and Gaia Astrometry. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	4
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