

# Paolo Padoan

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4815942/publications.pdf>

Version: 2024-02-01

91  
papers

6,381  
citations

66336

42  
h-index

66906

78  
g-index

92  
all docs

92  
docs citations

92  
times ranked

3573  
citing authors

#	ARTICLE	IF	CITATIONS
1	The CARMA-NRO Orion Surveyâ€™ Data Release. <i>Research Notes of the AAS</i> , 2021, 5, 55.	0.7	2
2	Dust polarization studies on MHD simulations of molecular clouds: comparison of methods for the relative-orientation analysis. <i>Astronomy and Astrophysics</i> , 2021, 647, A121.	5.1	2
3	The Core Mass Function in the Orion Nebula Cluster Region: What Determines the Final Stellar Masses?. <i>Astrophysical Journal Letters</i> , 2021, 910, L6.	8.3	15
4	The dynamical state of massive clumps. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 509, 5589-5607.	4.4	1
5	Physical properties and real nature of massive clumps in the galaxy. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 510, 1697-1715.	4.4	2
6	The Origin of Massive Stars: The Inertial-inflow Model. <i>Astrophysical Journal</i> , 2020, 900, 82.	4.5	82
7	The Effect of Supernovae on the Turbulence and Dispersal of Molecular Clouds. <i>Astrophysical Journal</i> , 2020, 904, 58.	4.5	15
8	The CARMA-NRO Orion Survey: Core Emergence and Kinematics in the Orion A Cloud. <i>Astrophysical Journal</i> , 2019, 882, 45.	4.5	6
9	The CARMA-NRO Orion Survey. <i>Astronomy and Astrophysics</i> , 2019, 623, A142.	5.1	45
10	Inaccuracy of Spatial Derivatives in Riemann Solver Simulations of Supersonic Turbulence. <i>Astrophysical Journal</i> , 2019, 876, 90.	4.5	5
11	Synthetic observations of dust emission and polarisation of Galactic cold clumps. <i>Astronomy and Astrophysics</i> , 2019, 629, A63.	5.1	3
12	The Probability Distribution of Density Fluctuations in Supersonic Turbulence. <i>Astrophysical Journal</i> , 2019, 881, 155.	4.5	24
13	Detailed Balance and Exact Results for Density Fluctuations in Supersonic Turbulence. <i>Astrophysical Journal Letters</i> , 2018, 866, L17.	8.3	10
14	The CARMA-NRO Orion Survey. <i>Astrophysical Journal, Supplement Series</i> , 2018, 236, 25.	7.7	64
15	The Stellar IMF from Isothermal MHD Turbulence. <i>Astrophysical Journal</i> , 2018, 854, 35.	4.5	51
16	Supernova Driving. IV. The Star-formation Rate of Molecular Clouds. <i>Astrophysical Journal</i> , 2017, 840, 48.	4.5	78
17	SUPERNOVA DRIVING. III. SYNTHETIC MOLECULAR CLOUD OBSERVATIONS. <i>Astrophysical Journal</i> , 2016, 826, 140.	4.5	22
18	SUPERNOVA DRIVING. II. COMPRESSIVE RATIO IN MOLECULAR-CLOUD TURBULENCE. <i>Astrophysical Journal</i> , 2016, 825, 30.	4.5	35

#	ARTICLE	IF	CITATIONS
19	SUPERNOVA DRIVING. I. THE ORIGIN OF MOLECULAR CLOUD TURBULENCE. <i>Astrophysical Journal</i> , 2016, 822, 11.	4.5	159
20	TURBULENCE-INDUCED RELATIVE VELOCITY OF DUST PARTICLES V. TESTING PREVIOUS MODELS. <i>Astrophysical Journal</i> , 2015, 812, 10.	4.5	11
21	THE RELATIVE AND ABSOLUTE AGES OF OLD GLOBULAR CLUSTERS IN THE LCDM FRAMEWORK. <i>Astrophysical Journal Letters</i> , 2015, 808, L35.	8.3	62
22	TURBULENCE-INDUCED RELATIVE VELOCITY OF DUST PARTICLES. IV. THE COLLISION KERNEL. <i>Astrophysical Journal</i> , 2014, 797, 101.	4.5	41
23	INFALL-DRIVEN PROTOSTELLAR ACCRETION AND THE SOLUTION TO THE LUMINOSITY PROBLEM. <i>Astrophysical Journal</i> , 2014, 797, 32.	4.5	80
24	TURBULENCE-INDUCED RELATIVE VELOCITY OF DUST PARTICLES. III. THE PROBABILITY DISTRIBUTION. <i>Astrophysical Journal</i> , 2014, 792, 69.	4.5	16
25	TURBULENCE-INDUCED RELATIVE VELOCITY OF DUST PARTICLES. II. THE BIDISPERSE CASE. <i>Astrophysical Journal</i> , 2014, 791, 48.	4.5	27
26	TURBULENCE-INDUCED RELATIVE VELOCITY OF DUST PARTICLES. I. IDENTICAL PARTICLES. <i>Astrophysical Journal</i> , 2013, 776, 12.	4.5	51
27	Zooming in on the Formation of Protoplanetary Disks. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 131-135.	0.0	4
28	A SIMPLE LAW OF STAR FORMATION. <i>Astrophysical Journal Letters</i> , 2012, 759, L27.	8.3	138
29	THE TWO STATES OF STAR-FORMING CLOUDS. <i>Astrophysical Journal</i> , 2012, 750, 13.	4.5	119
30	MASS AND MAGNETIC DISTRIBUTIONS IN SELF-GRAVITATING SUPER-ALFVÉNIC TURBULENCE WITH ADAPTIVE MESH REFINEMENT. <i>Astrophysical Journal</i> , 2011, 731, 59.	4.5	45
31	POPULATION III STARS FROM TURBULENT FRAGMENTATION AT REDSHIFT $z \approx 11$ . <i>Astrophysical Journal Letters</i> , 2011, 731, L38.	8.3	26
32	THE STAR FORMATION RATE OF SUPERSONIC MAGNETOHYDRODYNAMIC TURBULENCE. <i>Astrophysical Journal</i> , 2011, 730, 40.	4.5	374
33	THE OBSERVABLE PRESTELLAR PHASE OF THE INITIAL MASS FUNCTION. <i>Astrophysical Journal Letters</i> , 2011, 741, L22.	8.3	41
34	TURBULENT CLUSTERING OF PROTOPLANETARY DUST AND PLANETESIMAL FORMATION. <i>Astrophysical Journal</i> , 2011, 740, 6.	4.5	103
35	COMPARING NUMERICAL METHODS FOR ISOTHERMAL MAGNETIZED SUPERSONIC TURBULENCE. <i>Astrophysical Journal</i> , 2011, 737, 13.	4.5	105
36	Relative velocity of inertial particles in turbulent flows. <i>Journal of Fluid Mechanics</i> , 2010, 661, 73-107.	3.4	79

#	ARTICLE	IF	CITATIONS
37	Magnetic Fields in Molecular Clouds. Proceedings of the International Astronomical Union, 2010, 6, 187-196.	0.0	3
38	The IMF of stellar clusters: effects of accretion and feedback. Monthly Notices of the Royal Astronomical Society, 2010, , .	4.4	21
39	Theory of the Star Formation Rate. Proceedings of the International Astronomical Union, 2010, 6, 347-354.	0.0	1
40	THE SUPER-ALFVÉNIC MODEL OF MOLECULAR CLOUDS: PREDICTIONS FOR MASS-TO-FLUX AND TURBULENT-TO-MAGNETIC ENERGY RATIOS. Astrophysical Journal, 2009, 702, L37-L41.	4.5	31
41	THE TEMPERATURE OF INTERSTELLAR CLOUDS FROM TURBULENT HEATING. Astrophysical Journal, 2009, 692, 594-607.	4.5	56
42	THE POWER SPECTRUM OF TURBULENCE IN NGC 1333: OUTFLOWS OR LARGE-SCALE DRIVING?. Astrophysical Journal, 2009, 707, L153-L157.	4.5	88
43	Dissipative Structures in Supersonic Turbulence. Physical Review Letters, 2009, 102, 034501.	7.8	32
44	Simulating supersonic turbulence in magnetized molecular clouds. Journal of Physics: Conference Series, 2009, 180, 012020.	0.4	27
45	The Super-Alfvénic Model of Molecular Clouds: Predictions for Zeeman Splitting Measurements. Astrophysical Journal, 2008, 686, L91-L94.	4.5	26
46	The Statistics of Supersonic Isothermal Turbulence. Astrophysical Journal, 2007, 665, 416-431.	4.5	461
47	Scaling laws and intermittency in highly compressible turbulence. AIP Conference Proceedings, 2007, , .	0.4	13
48	Two Regimes of Turbulent Fragmentation and the Stellar Initial Mass Function from Primordial to Present-Day Star Formation. Astrophysical Journal, 2007, 661, 972-981.	4.5	149
49	The Power Spectrum of Supersonic Turbulence in Perseus. Astrophysical Journal, 2006, 653, L125-L128.	4.5	94
50	The mass distribution of unstable cores in turbulent magnetized clouds. Proceedings of the International Astronomical Union, 2006, 2, 283-291.	0.0	1
51	Adaptive Mesh Refinement for Supersonic Molecular Cloud Turbulence. Astrophysical Journal, 2006, 638, L25-L28.	4.5	55
52	High-Resolution Mapping of Interstellar Clouds by Near-Infrared Scattering. Astrophysical Journal, 2006, 636, L101-L104.	4.5	28
53	Can We Trust the Dust? Evidence of Dust Segregation in Molecular Clouds. Astrophysical Journal, 2006, 649, 807-815.	4.5	35
54	Multiresolution Radiative Transfer for Line Emission. Astrophysical Journal, 2005, 618, 744-756.	4.5	10

#	ARTICLE	IF	CITATIONS
55	A Solution to the Pre-Main-Sequence Accretion Problem. <i>Astrophysical Journal</i> , 2005, 622, L61-L64.	4.5	58
56	Confinement-driven Spatial Variations in the Cosmic-Ray Flux. <i>Astrophysical Journal</i> , 2005, 624, L97-L100.	4.5	50
57	The Stellar IMF as a Property of Turbulence. , 2005, , 357-362.		2
58	Structure Function Scaling in Compressible Super-Alfvénic MHD Turbulence. <i>Physical Review Letters</i> , 2004, 92, 191102.	7.8	74
59	Synthetic stellar populations: single stellar populations, stellar interior models and primordial protogalaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 349, 240-254.	4.4	75
60	The "Mysterious" Origin of Brown Dwarfs. <i>Astrophysical Journal</i> , 2004, 617, 559-564.	4.5	219
61	The Average Magnetic Field Strength in Molecular Clouds: New Evidence of Super-Alfvénic Turbulence. <i>Astrophysical Journal</i> , 2004, 604, L49-L52.	4.5	76
62	Electron Abundance in Protostellar Cores. <i>Astrophysical Journal</i> , 2004, 614, 203-210.	4.5	18
63	Photoelectric Heating and [Cii] Cooling in Translucent Clouds: Results for Cloud Models Based on Simulations of Compressible Magnetohydrodynamic Turbulence. <i>Astrophysical Journal</i> , 2003, 591, 258-266.	4.5	14
64	The Spectral Correlation Function of Molecular Clouds: A Statistical Test for Theoretical Models. <i>Astrophysical Journal</i> , 2003, 588, 881-893.	4.5	40
65	Structure Function Scaling in the Taurus and Perseus Molecular Cloud Complexes. <i>Astrophysical Journal</i> , 2003, 583, 308-313.	4.5	61
66	Star Formation and the Initial Mass Function. , 2003, , 271-298.		7
67	Scaling Relations of Supersonic Turbulence in Star-forming Molecular Clouds. <i>Astrophysical Journal</i> , 2002, 573, 678-684.	4.5	106
68	The Stellar Initial Mass Function from Turbulent Fragmentation. <i>Astrophysical Journal</i> , 2002, 576, 870-879.	4.5	810
69	Structure Function Scaling of a 2MASS Extinction Map of Taurus. <i>Astrophysical Journal</i> , 2002, 580, L57-L60.	4.5	50
70	Supersonic Turbulence and Structure of Interstellar Molecular Clouds. <i>Physical Review Letters</i> , 2002, 89, 031102.	7.8	76
71	The Effects of Noise and Sampling on the Spectral Correlation Function. <i>Astrophysical Journal</i> , 2001, 547, 862-871.	4.5	33
72	The Turbulent Shock Origin of Proto-stellar Cores. <i>Astrophysical Journal</i> , 2001, 553, 227-234.	4.5	218

#	ARTICLE	IF	CITATIONS
73	A New Method to Measure and Map the Gas Scale Height of Disk Galaxies. <i>Astrophysical Journal</i> , 2001, 555, L33-L36.	4.5	53
74	Theoretical Models of Polarized Dust Emission from Protostellar Cores. <i>Astrophysical Journal</i> , 2001, 559, 1005-1018.	4.5	124
75	Cooling Rates of Molecular Clouds Based on Numerical Magnetohydrodynamic Turbulence and Non-LTE Radiative Transfer. <i>Astrophysical Journal</i> , 2001, 563, 853-866.	4.5	18
76	Ambipolar Drift Heating in Turbulent Molecular Clouds. <i>Astrophysical Journal</i> , 2000, 540, 332-341.	4.5	44
77	A Comparison of $^{13}\text{CO}$ Local Thermodynamic Equilibrium and True Column Densities in Molecular Cloud Models. <i>Astrophysical Journal</i> , 2000, 529, 259-267.	4.5	33
78	Protogalactic Starbursts at High Redshift. <i>Astrophysical Journal</i> , 2000, 532, 152-169.	4.5	16
79	A Super-Alfvénic Model of Dark Clouds. <i>Astrophysical Journal</i> , 1999, 526, 279-294.	4.5	314
80	The Density PDFs of Supersonic Random Flows. , 1999, , 218-222.		128
81	Supersonic Turbulence in the Perseus Molecular Cloud. <i>Astrophysical Journal</i> , 1999, 525, 318-329.	4.5	69
82	Galaxy formation and evolution: low-surface-brightness galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 1998, 299, 123-138.	4.4	121
83	Synthetic Molecular Clouds from Supersonic MHD and Non-LTE Radiative Transfer Calculations. <i>Astrophysical Journal</i> , 1998, 504, 300-313.	4.5	57
84	The Ages and Distances of Globular Clusters with the Luminosity Function Method: The Case of M5 and M55. <i>Astrophysical Journal</i> , 1998, 498, 704-709.	4.5	23
85	Ages of Globular Clusters: Breaking the Age-Distance Degeneracy with the Luminosity Function. <i>Astrophysical Journal</i> , 1997, 475, 580-583.	4.5	6
86	The age of LSB discs. <i>AIP Conference Proceedings</i> , 1997, , .	0.4	2
87	A physical model for the stellar IMF. <i>AIP Conference Proceedings</i> , 1997, , .	0.4	7
88	Supersonic Turbulence in the Interstellar Medium: Stellar Extinction Determinations as Probes of the Structure and Dynamics of Dark Clouds. <i>Astrophysical Journal</i> , 1997, 474, 730-734.	4.5	160
89	Are Low Surface Brightness Disks Young?. <i>Astrophysical Journal</i> , 1997, 481, L27-L30.	4.5	12
90	A New Self-consistency Check on the Ages of Globular Clusters. <i>Astrophysical Journal</i> , 1996, 463, L17-L20.	4.5	13

#	ARTICLE	IF	CITATIONS
91	Supersonic turbulent flows and the fragmentation of a cold medium. Monthly Notices of the Royal Astronomical Society, 1995, 277, 377-388.	4.4	118