Rowan J Smith

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2787438/publications.pdf

Version: 2024-02-01

64 papers	3,189 citations	159573 30 h-index	149686 56 g-index
64 all docs	64 docs citations	64 times ranked	2236 citing authors

#	Article	IF	Citations
1	SIMULATIONS ON A MOVING MESH: THE CLUSTERED FORMATION OF POPULATION III PROTOSTARS. Astrophysical Journal, 2011, 737, 75.	4.5	375
2	The Formation and Fragmentation of Disks Around Primordial Protostars. Science, 2011, 331, 1040-1042.	12.6	320
3	Formation and evolution of primordial protostellar systems. Monthly Notices of the Royal Astronomical Society, 2012, 424, 399-415.	4.4	271
4	CO-dark gas and molecular filaments in Milky Way-type galaxies. Monthly Notices of the Royal Astronomical Society, 2014, 441, 1628-1645.	4.4	153
5	The simultaneous formation of massive stars and stellar clusters. Monthly Notices of the Royal Astronomical Society, 2009, 400, 1775-1784.	4.4	146
6	On the nature of star-forming filaments â€“ I. Filament morphologies. Monthly Notices of the Royal Astronomical Society, 2014, 445, 2900-2917.	4.4	137
7	THE ROLE OF COSMIC-RAY PRESSURE IN ACCELERATING GALACTIC OUTFLOWS. Astrophysical Journal Letters, 2016, 827, L29.	8.3	113
8	THE BONES OF THE MILKY WAY. Astrophysical Journal, 2014, 797, 53.	4.5	105
9	The efficiency of star formation in clustered and distributed regions. Monthly Notices of the Royal Astronomical Society, 2011, 410, 2339-2346.	4.4	99
10	The effects of accretion luminosity upon fragmentation in the early universe. Monthly Notices of the Royal Astronomical Society, 2011, 414, 3633-3644.	4.4	98
11	On the nature of star-forming filaments â€“ II. Subfilaments and velocities. Monthly Notices of the Royal Astronomical Society, 2016, 455, 3640-3655.	4.4	96
12	The Cloud Factory I: Generating resolved filamentary molecular clouds from galactic-scale forces. Monthly Notices of the Royal Astronomical Society, 2020, 492, 1594-1613.	4.4	67
13	Fragmentation in molecular clouds and its connection to the IMF. Monthly Notices of the Royal Astronomical Society, 2009, 396, 830-841.	4.4	64
14	A theoretical explanation for the Central Molecular Zone asymmetry. Monthly Notices of the Royal Astronomical Society, 2018, 475, 2383-2402.	4.4	64
15	The CARMA-NRO Orion Survey. Astrophysical Journal, Supplement Series, 2018, 236, 25.	7.7	64
16	LINE PROFILES OF CORES WITHIN CLUSTERS. II. SIGNATURES OF DYNAMICAL COLLAPSE DURING HIGH-MASS STAR FORMATION. Astrophysical Journal, 2013, 771, 24.	4.5	57
17	Simulations of the Milky Wayâ€™s central molecular zone â€“ I. Gas dynamics. Monthly Notices of the Royal Astronomical Society, 2020, 499, 4455-4478.	4.4	57
18	Shocks, cooling and the origin of star formation rates in spiral galaxies. Monthly Notices of the Royal Astronomical Society, 2013, 430, 1790-1800.	4.4	55

#	Article	IF	Citations
19	Simulations of the star-forming molecular gas in an interacting M51-like galaxy. Monthly Notices of the Royal Astronomical Society, 2020, 492, 2973-2995.	4.4	51
20	The structure of molecular clouds and the universality of the clump mass function. Monthly Notices of the Royal Astronomical Society, 2008, 391, 1091-1099.	4.4	48
21	LINE PROFILES OF CORES WITHIN CLUSTERS. I. THE ANATOMY OF A FILAMENT. Astrophysical Journal, 2012, 750, 64.	4.5	48
22	Simulations of the Milky Wayâ€™s Central Molecular Zone â€“ II. Star formation. Monthly Notices of the Royal Astronomical Society, 2020, 497, 5024-5040.	4.4	48
23	Variable accretion rates and fluffy first stars. Monthly Notices of the Royal Astronomical Society, 2012, 424, 457-463.	4.4	47
24	The CARMA-NRO Orion Survey. Astronomy and Astrophysics, 2019, 623, A142.	5.1	45
25	Thermal Feedback in the High-mass Star- and Cluster-forming Region W51. Astrophysical Journal, 2017, 842, 92.	4.5	43
26	Simultaneous low- and high-mass star formation in a massive protocluster: ALMA observations of G11.92â˜'0.61â˜…. Monthly Notices of the Royal Astronomical Society, 2017, 468, 3694-3708.	4.4	42
27	Massive 70â€‰Î¼m quiet clumps â€“ II. Non-thermal motions driven by gravity in massive star formation?. Monthly Notices of the Royal Astronomical Society, 2018, 473, 4975-4985.	4.4	41
28	CO-dark gas and molecular filaments in Milky Way-type galaxies â€“ II. The temperature distribution of the gas. Monthly Notices of the Royal Astronomical Society, 2016, 462, 3011-3025.	4.4	35
29	A quantification of the non-spherical geometry and accretion of collapsing cores. Monthly Notices of the Royal Astronomical Society, 2011, 411, 1354-1366.	4.4	33
30	WEAKLY INTERACTING MASSIVE PARTICLE DARK MATTER AND FIRST STARS: SUPPRESSION OF FRAGMENTATION IN PRIMORDIAL STAR FORMATION. Astrophysical Journal, 2012, 761, 154.	4.5	30
31	The history of dynamics and stellar feedback revealed by the Hâ€I filamentary structure in the disk of the Milky Way. Astronomy and Astrophysics, 2020, 642, A163.	5.1	29
32	The geometry of the gas surrounding the Central Molecular Zone: on the origin of localized molecular clouds with extreme velocity dispersions. Monthly Notices of the Royal Astronomical Society, 2019, 488, 4663-4673.	4.4	28
33	THE IMPACT OF THERMODYNAMICS ON GRAVITATIONAL COLLAPSE: FILAMENT FORMATION AND MAGNETIC FIELD AMPLIFICATION. Astrophysical Journal Letters, 2012, 760, L28.	8.3	27
34	Strong Excess Faraday Rotation on the Inside of the Sagittarius Spiral Arm. Astrophysical Journal Letters, 2019, 887, L7.	8.3	24
35	Line profiles of cores within clusters â€“ III. What is the most reliable tracer of core collapse in dense clusters?. Monthly Notices of the Royal Astronomical Society, 2014, 444, 874-886.	4.4	23
36	Low-metallicity star formation: relative impact of metals and magnetic fields. Monthly Notices of the Royal Astronomical Society, 2014, 442, 3112-3126.	4.4	21

#	Article	IF	Citations
37	Dynamically Driven Inflow onto the Galactic Center and its Effect upon Molecular Clouds. Astrophysical Journal, 2021, 922, 79.	4.5	16
38	The Core Mass Function in the Orion Nebula Cluster Region: What Determines the Final Stellar Masses?. Astrophysical Journal Letters, 2021, 910, L6.	8.3	15
39	A SOFIA Survey of [C ii] in the Galaxy M51. I. [C ii] as a Tracer of Star Formation. Astrophysical Journal Letters, 2018, 869, L30.	8.3	14
40	Simulations of the star-forming molecular gas in an interacting M51-like galaxy: cloud population statistics. Monthly Notices of the Royal Astronomical Society, 2021, 505, 5438-5459.	4.4	14
41	Gravity and Rotation Drag the Magnetic Field in High-mass Star Formation. Astrophysical Journal, 2020, 904, 168.	4.5	14
42	ALMA observations of the Extended Green Object G19.01â^'0.03 â€“ I. A Keplerian disc in a massive protostellar system. Monthly Notices of the Royal Astronomical Society, 2021, 509, 748-762.	4.4	12
43	sÃgame v3: Gas Fragmentation in Postprocessing of Cosmological Simulations for More Accurate Infrared Line Emission Modeling. Astrophysical Journal, 2021, 922, 88.	4.5	12
44	The fragmentation of expanding shells - III. Oligarchic accretion and the mass spectrum of fragments. Monthly Notices of the Royal Astronomical Society, 2011, 411, 2230-2240.	4.4	10
45	Synthetic Large-scale Galactic Filaments: On Their Formation, Physical Properties, and Resemblance to Observations. Astrophysical Journal, 2019, 887, 186.	4.5	10
46	The Cloud Factory II: gravoturbulent kinematics of resolved molecular clouds in a galactic potential. Monthly Notices of the Royal Astronomical Society, 2020, 500, 5268-5296.	4.4	9
47	Formation and evolution of primordial protostellar systems. AIP Conference Proceedings, 2012, , .	0.4	8
48	Why most molecular clouds are gravitationally dominated. Monthly Notices of the Royal Astronomical Society, 2022, 515, 2822-2836.	4.4	7
49	The structure and kinematics of dense gas in NGCâ€‰2068. Monthly Notices of the Royal Astronomical Society, 2013, 429, 3252-3265.	4.4	6
50	The CARMA-NRO Orion Survey: Core Emergence and Kinematics in the Orion A Cloud. Astrophysical Journal, 2019, 882, 45.	4.5	6
51	The filamentary structures in the CO emission toward the Milky Way disk. Astronomy and Astrophysics, 2021, 651, L4.	5.1	6
52	The CARMA-NRO Orion Survey: Filament Formation via Collision-induced Magnetic Reconnectionâ€”the Stick in Orion A. Astrophysical Journal, 2021, 906, 80.	4.5	6
53	A SOFIA Survey of [C ii] in the Galaxy M51. II. [C ii] and CO Kinematics across the Spiral Arms. Astrophysical Journal, 2020, 900, 132.	4.5	6
54	Is the molecular KS relationship universal down to low metallicities?. Monthly Notices of the Royal Astronomical Society, 2022, 510, 4146-4165.	4.4	5

#	Article	IF	Citations
55	The Magnetic Field in the Milky Way Filamentary Bone G47. Astrophysical Journal Letters, 2022, 926, L6.	8.3	4
56	The CARMA-NRO Orion Surveyâ€"Data Release. Research Notes of the AAS, 2021, 5, 55.	0.7	2
57	High-resolution CARMA Observation of Molecular Gas in the North America and Pelican Nebulae. Astronomical Journal, 2021, 161, 229.	4.7	2
58	The Effects of Accretion Luminosity on the Environment of the First Stars. , 2010, , .		1
59	The Formation of Massive Stars. Proceedings of the International Astronomical Union, 2010, 6, 57-64.	0.0	0
60	The Formation and Fragmentation of Primordial Protostellar Discs. , 2010, , .		0
61	Dark matter annihilation feedback: Effects upon collapse and fragmentation. , 2012, , .		0
62	Kinematic and thermal structure at the onset of high-mass star formation - ISOSS23053. Proceedings of the International Astronomical Union, 2015, 12, 125-126.	0.0	0
63	The Birth of an IMF. Thirty Years of Astronomical Discovery With UKIRT, 2014, , 323-327.	0.3	0
64	Spiral Shocks, Cooling, and the Origin of Star Formation Rates. Thirty Years of Astronomical Discovery With UKIRT, 2014, , 151-155.	0.3	0