James Wurster

List of Publications by Year
in descending order

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30 papers	1,178 citations	430754 18 h-index	454834 30 g-index
31 all docs	31 docs citations	31 times ranked	1078 citing authors

#	Article	IF	Citations
1	<scp>Phantom</scp>: A Smoothed Particle Hydrodynamics and Magnetohydrodynamics Code for Astrophysics. Publications of the Astronomical Society of Australia, 2018, 35, .	1.3	267
2	Can non-ideal magnetohydrodynamics solve the magnetic braking catastrophe?. Monthly Notices of the Royal Astronomical Society, 2016, 457, 1037-1061.	1.6	115
3	The effect of a wider initial separation on common envelope binary interaction simulations. Monthly Notices of the Royal Astronomical Society, 2017, 464, 4028-4044.	1.6	89
4	A comparative study of AGN feedback algorithms. Monthly Notices of the Royal Astronomical Society, 2013, 431, 2513-2534.	1.6	59
5	The Role of Magnetic Fields in the Formation of Protostellar Discs. Frontiers in Astronomy and Space Sciences, 2018, 5, .	1.1	56
6	There is no magnetic braking catastrophe: low-mass star cluster and protostellar disc formation with non-ideal magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2019, 489, 1719-1741.	1.6	54
7	Magnetically-regulated fragmentation induced by nonlinear flows and ambipolar diffusion. New Astronomy, 2009, 14, 483-495.	0.8	47
8	The collapse of a molecular cloud core to stellar densities using radiation non-ideal magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2018, 475, 1859-1880.	1.6	47
9	Ambipolar diffusion in smoothed particle magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2014, 444, 1104-1112.	1.6	36
10	Nonlinear evolution of gravitational fragmentation regulated by magnetic fields and ambipolar diffusion. New Astronomy, 2009, 14, 221-237.	0.8	33
11	NICIL: A Stand Alone Library to Self-Consistently Calculate Non-Ideal Magnetohydrodynamic Coefficients in Molecular Cloud Cores. Publications of the Astronomical Society of Australia, 2016, 33, .	1.3	33
12	The impact of non-ideal magnetohydrodynamics on binary star formation. Monthly Notices of the Royal Astronomical Society, 2017, 466, 1788-1804.	1.6	33
13	Disc formation and fragmentation using radiative non-ideal magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	31
14	AGN feedback models: correlations with star formation and observational implications of time evolution. Monthly Notices of the Royal Astronomical Society, 2014, 443, 1125-1141.	1.6	26
15	The effect of extreme ionization rates during the initial collapse of a molecular cloud core. Monthly Notices of the Royal Astronomical Society, 2018, 476, 2063-2074.	1.6	26
16	On the origin of magnetic fields in stars. Monthly Notices of the Royal Astronomical Society, 2018, 481, 2450-2457.	1.6	24
17	Hall effect-driven formation of gravitationally unstable discs in magnetized molecular cloud cores. Monthly Notices of the Royal Astronomical Society, 2018, 480, 4434-4442.	1.6	24
18	COMPARING SIMULATIONS OF AGN FEEDBACK. Astrophysical Journal, 2016, 825, 83.	1.6	20

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19	Non-ideal magnetohydrodynamics versus turbulence â€“ I. Which is the dominant process in protostellar disc formation?. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3795-3806.	1.6	19
20	The impact of non-ideal magnetohydrodynamic processes on discs, outflows, counter-rotation, and magnetic walls during the early stages of star formation. Monthly Notices of the Royal Astronomical Society, 2021, 507, 2354-2372.	1.6	18
21	Does turbulence determine the initial mass function?. Monthly Notices of the Royal Astronomical Society, 2017, 465, 105-110.	1.6	17
22	Non-ideal magnetohydrodynamics versus turbulence II: Which is the dominant process in stellar core formation?. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3807-3818.	1.6	15
23	The formation and early evolution of embedded star clusters in spiral galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 509, 6155-6168.	1.6	15
24	Accretion disc particle accretion in major merger simulations. Monthly Notices of the Royal Astronomical Society, 2013, 431, 539-553.	1.6	13
25	The properties of clusters, and the orientation of magnetic fields relative to filaments, in magnetohydrodynamic simulations of colliding clouds. Monthly Notices of the Royal Astronomical Society, 2021, 502, 2285-2295.	1.6	13
26	Do we need non-ideal magnetohydrodynamic to model protostellar discs?. Monthly Notices of the Royal Astronomical Society, 2021, 501, 5873-5891.	1.6	13
27	Ambipolar diffusion and the molecular abundances in pre-stellar cores. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2357-2364.	1.6	12
28	On the origin of magnetic fields in stars â€“ II. The effect of numerical resolution. Monthly Notices of the Royal Astronomical Society, 2022, 511, 746-764.	1.6	9
29	Investigating the role of magnetic fields in star formation using molecular line profiles. Monthly Notices of the Royal Astronomical Society, 2021, 504, 2381-2389.	1.6	8
30	Cloud angular momentum and effective viscosity in global SPH simulations with feedback. Monthly Notices of the Royal Astronomical Society, 2014, 442, 3674-3685.	1.6	4