Sean P Matt

List of Publications by Year
in descending order

62 papers	2,828 citations	159585 30 h-index	175258 52 g-index
63 all docs	63 docs citations	63 times ranked	1711 citing authors

#	Article	IF	Citations
1	Effect of Differential Rotation on the Magnetic Braking of Low-mass and Solar-like Stars: A Proof-of-concept Study. Astrophysical Journal, 2022, 925, 100.	4.5	5
2	Magnetic Braking of Accreting T Tauri Stars II: Torque Formulation Spanning Spin-up and Spin-down Regimes. Astrophysical Journal, 2022, 929, 65.	4.5	7
3	Statistical Fitting of Evolutionary Models to Rotation Rates of Sun-like Stars. Astrophysical Journal, 2021, 913, 75.	4.5	8
4	Photometric Variability as a Proxy for Magnetic Activity and Its Dependence on Metallicity. Astrophysical Journal, 2021, 912, 127.	4.5	23
5	The contribution of alpha particles to the solar wind angular momentum flux in the inner heliosphere. Astronomy and Astrophysics, 2021, 650, A17.	5.1	11
6	Magnetic Braking of Accreting T Tauri Stars: Effects of Mass Accretion Rate, Rotation, and Dipolar Field Strength. Astrophysical Journal, 2021, 906, 4.	4.5	21
7	Evidence for metallicity-dependent spin evolution in the Kepler field. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3481-3493.	4.4	23
8	On the origin of the bimodal rotational velocity distribution in stellar clusters: rotation on the pre-main sequence. Monthly Notices of the Royal Astronomical Society, 2020, 495, 1978-1983.	4.4	19
9	The Impact of Metallicity on the Evolution of the Rotation and Magnetic Activity of Sun-like Stars. Astrophysical Journal, 2020, 889, 108.	4.5	37
10	How Much Do Underestimated Field Strengths from Zeemanâ€“Doppler Imaging Affect Spin-down Torque Estimates?. Astrophysical Journal, 2020, 894, 69.	4.5	7
11	AlfvÃ©n-wave-driven Magnetic Rotator Winds from Low-mass Stars. I. Rotation Dependences of Magnetic Braking and Mass-loss Rate. Astrophysical Journal, 2020, 896, 123.	4.5	30
12	When Do Stalled Stars Resume Spinning Down? Advancing Gyrochronology with Ruprecht 147. Astrophysical Journal, 2020, 904, 140.	4.5	89
13	The Solar Wind Angular Momentum Flux as Observed by Parker Solar Probe. Astrophysical Journal Letters, 2020, 902, L4.	8.3	11
14	Direct Detection of Solar Angular Momentum Loss with the Wind Spacecraft. Astrophysical Journal Letters, 2019, 885, L30.	8.3	20
15	Estimating Magnetic Filling Factors from Zeemanâ€“Doppler Magnetograms. Astrophysical Journal, 2019, 876, 118.	4.5	59
16	Solar Angular Momentum Loss over the Past Several Millennia. Astrophysical Journal, 2019, 883, 67.	4.5	13
17	Do Non-dipolar Magnetic Fields Contribute to Spin-down Torques?. Astrophysical Journal, 2019, 886, 120.	4.5	45
18	The Effect of Magnetic Variability on Stellar Angular Momentum Loss. II. The Sun, 61 Cygni A, Ïµ Eridani, Î¾ Bootis A, and Ï„ Bootis A. Astrophysical Journal, 2019, 876, 44.	4.5	13

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19	The Effect of Combined Magnetic Geometries on Thermally Driven Winds. II. Dipolar, Quadrupolar, and Octupolar Topologies. Astrophysical Journal, 2018, 854, 78.	4.5	58
20	Erratum â€œThe Effect of Combined Magnetic Geometries on Thermally Driven Winds. II. Dipolar, Quadrupolar, and Octupolar Topologiesâ€•(2018, ApJ, 854, 78). Astrophysical Journal, 2018, 857, 147.	4.5	0
21	The Effect of Magnetic Variability on Stellar Angular Momentum Loss. I. The Solar Wind Torque during Sunspot Cycles 23 and 24. Astrophysical Journal, 2018, 864, 125.	4.5	35
22	On Differential Rotation and Overshooting in Solar-like Stars. Astrophysical Journal, 2017, 836, 192.	4.5	101
23	The Effect of Combined Magnetic Geometries on Thermally Driven Winds. I. Interaction of Dipolar and Quadrupolar Fields. Astrophysical Journal, 2017, 845, 46.	4.5	33
24	Magnetic Braking of Sun-like and Low-mass Stars: Dependence on Coronal Temperature. Astrophysical Journal, 2017, 849, 83.	4.5	35
25	A path towards understanding the rotationâ€“activity relation of M dwarfs with K2 mission, X-ray and UV data. Monthly Notices of the Royal Astronomical Society, 2016, 463, 1844-1864.	4.4	65
26	MAGNETIC GAMES BETWEEN A PLANET AND ITS HOST STAR: THE KEY ROLE OF TOPOLOGY. Astrophysical Journal, 2015, 815, 111.	4.5	78
27	The role of complex magnetic topologies on stellar spin-down. Proceedings of the International Astronomical Union, 2015, 11, 297-302.	0.0	0
28	FROM SOLAR TO STELLAR CORONA: THE ROLE OF WIND, ROTATION, AND MAGNETISM. Astrophysical Journal, 2015, 814, 99.	4.5	57
29	THE EFFECT OF MAGNETIC TOPOLOGY ON THERMALLY DRIVEN WIND: TOWARD A GENERAL FORMULATION OF THE BRAKING LAW. Astrophysical Journal, 2015, 798, 116.	4.5	166
30	THE MASS-DEPENDENCE OF ANGULAR MOMENTUM EVOLUTION IN SUN-LIKE STARS. Astrophysical Journal Letters, 2015, 799, L23.	8.3	230
31	ON THE DIVERSITY OF MAGNETIC INTERACTIONS IN CLOSE-IN STAR-PLANET SYSTEMS. Astrophysical Journal, 2014, 795, 86.	4.5	87
32	The Early History of Stellar Spin: the Theory of Accretion onto Young Stellar Objects. EPJ Web of Conferences, 2014, 64, 04001.	0.3	1
33	Coronal Mass Ejections and Angular Momentum Loss in Young Stars. Proceedings of the International Astronomical Union, 2013, 8, 318-321.	0.0	2
34	Modeling magnetized star-planet interactions: boundary conditions effects. Proceedings of the International Astronomical Union, 2013, 8, 330-334.	0.0	2
35	SPIN EVOLUTION OF ACCRETING YOUNG STARS. II. EFFECT OF ACCRETION-POWERED STELLAR WINDS. Astrophysical Journal, 2012, 745, 101.	4.5	65
36	MASS LOSS IN PRE-MAIN-SEQUENCE STARS VIA CORONAL MASS EJECTIONS AND IMPLICATIONS FOR ANGULAR MOMENTUM LOSS. Astrophysical Journal, 2012, 760, 9.	4.5	88

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37	MAGNETIC BRAKING FORMULATION FOR SUN-LIKE STARS: DEPENDENCE ON DIPOLE FIELD STRENGTH AND ROTATION RATE. Astrophysical Journal Letters, 2012, 754, L26.	8.3	175
38	A SEARCH FOR STAR-DISK INTERACTION AMONG THE STRONGEST X-RAY FLARING STARS IN THE ORION NEBULA CLUSTER. Astrophysical Journal, 2010, 717, 93-106.	4.5	23
39	SPIN EVOLUTION OF ACCRETING YOUNG STARS. I. EFFECT OF MAGNETIC STAR-DISK COUPLING. Astrophysical Journal, 2010, 714, 989-1000.	4.5	61
40	New Calculations of Stellar Wind Torques. , 2009, , .		1
41	The rotation-magnetic field relation. , 2009, , .		1
42	T Tauri Angular Momentum Loss via Large Scale Eruptive Flaring Events. , 2009, , .		3
43	Soft X-rays from DG Tau: A physical Jet Model. Thirty Years of Astronomical Discovery With UKIRT, 2009, , 543-545.	0.3	0
44	The non-dipolar magnetic fields of accreting T Tauri stars. Monthly Notices of the Royal Astronomical Society, 2008, 389, 1839-1850.	4.4	52
45	Accretionâ€powered Stellar Winds. II. Numerical Solutions for Stellar Wind Torques. Astrophysical Journal, 2008, 678, 1109-1118.	4.5	148
46	Accretionâ€powered Stellar Winds. III. Spinâ€Equilibrium Solutions. Astrophysical Journal, 2008, 681, 391-399.	4.5	69
47	Physical Conditions of Accreting Gas in T Tauri Star Systems. Astrophysical Journal, 2008, 687, 376-388.	4.5	32
48	The nature of stellar winds in the star-disk interaction. Proceedings of the International Astronomical Union, 2007, 3, 299-306.	0.0	22
49	Measuring the physical conditions of accreting gas in T Tauri systems. Proceedings of the International Astronomical Union, 2007, 3, 95-102.	0.0	0
50	Astrophysical Explosions Driven by a Rotating, Magnetized, Gravitating Sphere. Astrophysical Journal, 2006, 647, L45-L48.	4.5	38
51	Accretion-powered Stellar Winds as a Solution to the Stellar Angular Momentum Problem. Astrophysical Journal, 2005, 632, L135-L138.	4.5	266
52	The spin of accreting stars: dependence on magnetic coupling to the disc. Monthly Notices of the Royal Astronomical Society, 2005, 356, 167-182.	4.4	115
53	Simultaneous Production of Disk and Lobes: A Singleâ€Wind MHD Model for the Î· Carinae Nebula. Astrophysical Journal, 2004, 615, 921-933.	4.5	38
54	Does Disk Locking Solve the Stellar Angular Momentum Problem?. Astrophysical Journal, 2004, 607, L43-L46.	4.5	34

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55	Collimation of a Central Wind by a Disk-Associated Magnetic Field. Astrophysics and Space Science, 2003, 287, 65-68.	1.4	5
56	Collimation of a central wind by a disc-associated magnetic field. Monthly Notices of the Royal Astronomical Society, 2003, 345, 660-670.	4.4	29
57	The Enigmatic HH 255. Publications of the Astronomical Society of the Pacific, 2003, 115, 334-341.	3.1	4
58	Collimation of a Central Wind By a Disk-Associated Magnetic Field. , 2003, , 65-68.		0
59	Simulationâ€based Investigation of a Model for the Interaction between Stellar Magnetospheres and Circumstellar Accretion Disks. Astrophysical Journal, 2002, 574, 232-245.	4.5	62
60	An Approximate Determination of the Gasâ€Phase Metal Abundance in Herbigâ€Haro Outflows and Their Shocks. Publications of the Astronomical Society of the Pacific, 2001, 113, 158-164.	3.1	17
61	Disk Formation by Asymptotic Giant Branch Winds in Dipole Magnetic Fields. Astrophysical Journal, 2000, 545, 965-973.	4.5	67
62	A statistical evaluation of ballistic backmapping for the slow solar wind: The interplay of solar wind acceleration and corotation. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	9