Dermott Mullan

List of Publications by Year
in descending order

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136	3,415	159585 30	168389 53
papers	citations	h-index	g-index

138	138	138	2237
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coronal Heating by Magnetohydrodynamic Turbulence Driven by Reflected Low-Frequency Waves. Astrophysical Journal, 1999, 523, L93-L96.	4.5	297
2	MHDâ€driven Kinetic Dissipation in the Solar Wind and Corona. Astrophysical Journal, 2000, 537, 1054-1062.	4.5	224
3	Are Magnetically Active Lowâ€Mass M Dwarfs Completely Convective?. Astrophysical Journal, 2001, 559, 353-371.	4.5	197
4	Coronal Heating Distribution Due to Lowâ€Frequency, Waveâ€driven Turbulence. Astrophysical Journal, 2002, 575, 571-577.	4.5	145
5	Corotating interaction regions in stellar winds. Astrophysical Journal, 1984, 283, 303.	4.5	145
6	Model chromospheres of flare stars. I - Balmer-line profiles. Astrophysical Journal, 1979, 234, 579.	4.5	101
7	The Structure of Transverse Hydromagnetic Shocks in Regions of Low Ionization. Monthly Notices of the Royal Astronomical Society, 1971, 153, 145-170.	4.4	82
8	On the possibility of magnetic starspots on the primary components of W Ursae Majoris type binaries. Astrophysical Journal, 1975, 198, 563.	4.5	75
9	A Reduced Magnetohydrodynamic Model of Coronal Heating in Open Magnetic Regions Driven by Reflected Lowâ€Frequency Alfven Waves. Astrophysical Journal, 2001, 551, 565-575.	4.5	68
10	Detection of mass loss in stellar chromospheres. Astrophysical Journal, 1980, 238, 221.	4.5	66
11	Magnetic fields in massive stars: dynamics and origin. Monthly Notices of the Royal Astronomical Society, 2004, 348, 702-716.	4.4	56
12	Starspots on flare stars.. Astrophysical Journal, 1974, 192, 149.	4.5	56
13	K2 Ultracool Dwarfs Survey. III. White Light Flares Are Ubiquitous in M6-L0 Dwarfs. Astrophysical Journal, 2018, 858, 55.	4.5	54
14	A Comparative Study of Flaring Loops in Active Stars. Astrophysical Journal, Supplement Series, 2006, 164, 173-201.	7.7	53
15	Supersonic stellar winds and rapid mass loss in cool stars. Astrophysical Journal, 1978, 226, 151.	4.5	52
16	Limits on detectability of mass loss from cool dwarfs. Astrophysical Journal, 1992, 397, 225.	4.5	51
17	Precision modelling of M dwarf stars: the magnetic components of CM Draconis. Monthly Notices of the Royal Astronomical Society, 2012, 421, 3084-3101.	4.4	48
18	Dynamo-generated magnetic fields at the surface of a massive star. Monthly Notices of the Royal Astronomical Society, 2005, 356, 1139-1148.	4.4	46

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19	From Solar and Stellar Flares to Coronal Heating: Theory and Observations of How Magnetic Reconnection Regulates Coronal Conditions. Astrophysical Journal, 2008, 676, L69-L72.	4.5	46
20	Detection of Coronal Mass Ejections in V471 Tauri with theHubble Space Telescope. Astrophysical Journal, 2001, 560, 919-927.	4.5	45
21	Evidence for a cool wind from the K2 dwarf in the detached binary V471 Tauri. Astrophysical Journal, 1989, 339, L33.	4.5	44
22	MAGNETO-CONVECTION AND LITHIUM AGE ESTIMATES OF THEÎ²PICTORIS MOVING GROUP. Astrophysical Journal, 2010, 723, 1599-1606.	4.5	39
23	The outer atmospheres of cool stars. VII - High resolution, absolute flux profiles of the MG II H and K lines in stars of spectral types F8 to M5. Astrophysical Journal, Supplement Series, 1980, 44, 383.	7.7	39
24	SURFACE MAGNETIC FIELD STRENGTHS: NEW TESTS OF MAGNETOCONVECTIVE MODELS OF M DWARFS. Astrophysical Journal, 2014, 787, 70.	4.5	38
25	Periodic Modulation of X-Ray Intensity from Coronal Loops â€“ Heating by Resonant Absorption?. Solar Physics, 1997, 176, 127-145.	2.5	36
26	K2 Ultracool Dwarfs Survey. II. The White Light Flare Rate of Young Brown Dwarfs. Astrophysical Journal, 2017, 845, 33.	4.5	36
27	Nonprimordial Deuterium in the Interstellar Medium. Astrophysical Journal, 1999, 511, 502-512.	4.5	35
28	STRUCTURAL EFFECTS OF MAGNETIC FIELDS IN BROWN DWARFS. Astrophysical Journal, 2009, 700, 387-394.	4.5	32
29	ROTATIONâ€“ACTIVITY CORRELATIONS IN K AND M DWARFS. I. STELLAR PARAMETERS AND COMPILATIONS OF vÂsinÂi AND P/sin i FOR A LARGE SAMPLE OF LATE-K AND M DWARFS*. Astrophysical Journal, 2016, 822, 97.	4.5	32
30	Magnetic Modeling of Inflated Low-mass Stars Using Interior Fields No Larger than â¼10 kG. Astrophysical Journal, 2017, 850, 58.	4.5	32
31	The Rotationâ€“activity Correlations in K and M Dwarfs. II. New Constraints on the Dynamo Mechanisms in Late-K and M Dwarfs before and at the Transition to Complete Convection^{â—}. Astrophysical Journal, 2017, 837, 96.	4.5	31
32	Thermal X-rays from stellar flares - Reevaluation of scaling from solar flares. Astrophysical Journal, 1976, 207, 289.	4.5	30
33	Fast azimuthal transport of solar cosmic rays via a coronal magnetic bottle. Journal of Geophysical Research, 1977, 82, 5609-5620.	3.3	29
34	Solar Wind Statistics at 1 AU: Alfven Speed and Plasma Beta. Solar Physics, 2006, 234, 325-338.	2.5	27
35	The Massâ€“Activity Relationships in M and K Dwarfs. I. Stellar Parameters of Our Sample of M and K Dwarfs*. Astronomical Journal, 2019, 158, 56.	4.7	27
36	Sunspot Models with Alfvin Wave Emission. Astrophysical Journal, 1974, 187, 621.	4.5	27

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37	Gravitational damping of Alfven waves in stellar atmospheres and winds. Astrophysical Journal, 1994, 430, 814.	4.5	26
38	On the possibility of resonant electrodynamic coupling in the coronae of red dwarfs. Astrophysical Journal, 1984, 282, 603.	4.5	24
39	APPARENT NON-COEVALITY AMONG THE STARS IN UPPER SCORPIO: RESOLVING THE PROBLEM USING A MODEL OF MAGNETIC INHIBITION OF CONVECTION. Astrophysical Journal, 2017, 834, 67.	4.5	24
40	Magnetic moments and angular momenta of stars and planets. Astrophysical Journal, 1995, 443, 795.	4.5	23
41	Magnetic Cycles in the Sun: Modeling the Changes in Radius, Luminosity, andpâ€Mode Frequencies. Astrophysical Journal, 2007, 670, 1420-1433.	4.5	22
42	Cellular Convection in Model Stellar Envelopes. Monthly Notices of the Royal Astronomical Society, 1971, 154, 467-489.	4.4	21
43	Photosynthesis on a Planet Orbiting an M Dwarf: Enhanced Effectiveness during Flares. Astrophysical Journal, 2018, 865, 101.	4.5	21
44	K2 Ultracool Dwarfs Survey â€“ V. High superflare rates on rapidly rotating late-M dwarfs. Monthly Notices of the Royal Astronomical Society, 2019, 486, 1438-1447.	4.4	21
45	Possible evidence for the occurrence of magnetic fields of order 10 kilogauss in the red dwarf star by Draconis. Astrophysical Journal, 1976, 204, 818.	4.5	21
46	Addendum - Detection of Mass Loss in Stellar Chromospheres. Astrophysical Journal, 1980, 240, 718.	4.5	21
47	Three-dimensional compressible hydrodynamic convection in the sun and stars. Astrophysical Journal, 1991, 380, 631.	4.5	20
48	Acoustic heating of the chromosphere and cool corona in the F star alpha Canis Minoris (Procyon). Astrophysical Journal, 1994, 435, 435.	4.5	20
49	A note on the magnetic field strengths on the surfaces of cool dwarfs. Astrophysical Journal, 1984, 279, 746.	4.5	19
50	MHD turbulence and heating of the open field-line solar corona. Nonlinear Processes in Geophysics, 2003, 10, 93-100.	1.3	18
51	MAGNETIC MODELS OF THE BROWN DWARFS HD 130948B AND HD 130948C. Astrophysical Journal, 2010, 713, 1249-1255.	4.5	18
52	DYNAMICS OF ROTATION IN M DWARFS: INDICATIONS FOR A CHANGE IN THE DYNAMO REGIME IN STARS AT THE ONSET OF COMPLETE CONVECTION. Astrophysical Journal, 2015, 801, 106.	4.5	18
53	Origin of Radio-quiet Coronal Mass Ejections in Flare Stars. Astrophysical Journal, 2019, 873, 1.	4.5	18
54	Momentum flux invariance in the solar wind. Astrophysical Journal, 1983, 272, 325.	4.5	18

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55	K2 Ultracool Dwarfs Survey. IV. Monster Flares Observed on the Young Brown Dwarf CFHT-BD-Tau 4. Astrophysical Journal, 2018, 861, 76.	4.5	17
56	Motion of solar cosmic rays in the coronal magnetic field. Solar Physics, 1979, 62, 153-177.	2.5	16
57	Properties of minimum-flux coronae in dwarfs and giants. Astrophysical Journal, 1976, 209, 171.	4.5	16
58	Asymmetries in stellar MG II H and K and CA II H and K line profiles - Discrepancies between MG and CA asymmetries. Astrophysical Journal, 1984, 284, 769.	4.5	16
59	Simultaneous Multiwavelength Flare Observations of EV Lacertae. Astrophysical Journal, 2021, 922, 31.	4.5	16
60	Solar and stellar flares. Solar Physics, 1977, 54, 183-206.	2.5	15
61	Frequencies of Flare Occurrence: Interaction between Convection and Coronal Loops. Astrophysical Journal, 2018, 854, 14.	4.5	15
62	Influence of stellar flare X-rays on the optical light curve. Astrophysical Journal, 1977, 212, 179.	4.5	15
63	Far-infrared properties of flare stars and dM stars. Astrophysical Journal, 1989, 343, 400.	4.5	15
64	On the detectability of starspot magnetic fields. Astrophysical Journal, 1979, 231, 152.	4.5	14
65	Onset of Shear Instability in Rotating Red Giants. Astrophysical Journal, 2003, 598, 560-571.	4.5	13
66	Winds from OB Stars: A Twoâ€€Component Scenario?. Astrophysical Journal, 2006, 637, 506-517.	4.5	13
67	Mean colors of stellar flare continuum.. Astrophysical Journal, 1976, 210, 702.	4.5	13
68	Magnesium emission variability among late-type giant stars. Astrophysical Journal, 1982, 253, 716.	4.5	13
69	MG II and Ly-alpha fluxes in M dwarfs - Evaluation of an acoustic model. Astrophysical Journal, 1993, 412, 312.	4.5	13
70	K2 Ultracool Dwarfs Survey â€“ VI. White light superflares observed on an L5 dwarf and flare rates of L dwarfs. Monthly Notices of the Royal Astronomical Society, 2020, 494, 5751-5760.	4.4	12
71	Are stellar flares energized by the missing energy in starspots. Astrophysical Journal, 1975, 200, 641.	4.5	12
72	Magnetohydrodynamic shock propagation in the vicinity of a magnetic neutral sheet. Astrophysical Journal, 1980, 241, 1186.	4.5	12

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73	Simulation of Compressible Convection: A Comparative Study of Boundary Conditions. Astrophysical Journal, 1993, 416, 733.	4.5	12
74	Shortâ€Period Magnetic Fluctuations inAdvanced Composition ExplorerSolar Wind Data: Evidence for Anticorrelation with Alfven Speed. Astrophysical Journal, 2003, 583, 496-505.	4.5	12
75	SpitzerObservations of Nearby M Dwarfs. Astrophysical Journal, 2006, 650, 1133-1139.	4.5	11
76	Magnetic Fields on the Flare Star Trappist-1: Consequences for Radius Inflation and Planetary Habitability. Astrophysical Journal, 2018, 869, 149.	4.5	11
77	Non-Thermal Radio Emission From Flare Stars and RS CVn Systems. Astrophysics and Space Science Library, 1985, , 173-184.	2.7	11
78	Sympathetic stellar flares and electron precipitation as probes of coronal structure in flare stars. Astrophysical Journal, 1976, 204, 530.	4.5	11
79	A model for nonmonotonic optical light curves of stellar flares. Astrophysical Journal, 1977, 212, 171.	4.5	11
80	Inefficient accretion by the DA2 white dwarf in V471 Tauri. Astrophysical Journal, 1991, 374, 707.	4.5	11
81	Coronal heating in flare stars: Resonant MHD absorption?. Astrophysical Journal, 1995, 444, 350.	4.5	11
82	FLARES ON A Bp STAR. Astrophysical Journal, 2009, 702, 759-766.	4.5	10
83	Release of solar cosmic rays from the corona - Rayleigh-Taylor instability and reconnection. Astrophysical Journal, 1983, 269, 765.	4.5	10
84	Rotational modulation of chromospheric emission in cool giants and 'hybrid' stars. Astrophysical Journal, 1985, 288, 310.	4.5	10
85	Coronal Heating in dMe and dM Stars: Clues from the X-Ray Surface Fluxes. Astrophysical Journal, 1996, 464, 890.	4.5	10
86	Can oscillations grow in a sunspot umbra?. Solar Physics, 1973, 30, 83-91.	2.5	9
87	Magnetoconvective models of red dwarfs: constraints imposed by the lithium abundance. Monthly Notices of the Royal Astronomical Society, 2015, 448, 2019-2029.	4.4	9
88	The Magnetic Binary GJ 65: A Test of Magnetic Diffusivity Effects. Astrophysical Journal, 2018, 860, 15.	4.5	9
89	A Transition of Dynamo Modes in M Dwarfs: Narrowing Down the Spectral Range Where the Transition Occurs*. Astrophysical Journal, 2020, 891, 128.	4.5	9
90	Extremeâ€Ultraviolet Flares in an F2 Star. Astrophysical Journal, 2000, 544, 475-480.	4.5	9

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91	Onset of Mass Loss in Red Giants: Association with an Evolutionary Event. Astrophysical Journal, 2003, 591, 1203-1209.	4.5	8
92	A MODEL FOR INTERFACE DYNAMOS IN LATE K AND EARLY M DWARFS. Astrophysical Journal Letters, 2015, 810, L18.	8.3	8
93	Stochastic acceleration of solar cosmic rays in an expanding coronal magnetic bottle. Astrophysical Journal, 1980, 237, 244.	4.5	8
94	Magnetohydrodynamic modeling of coronal bright points. Astrophysical Journal, 1987, 319, 971.	4.5	8
95	New numerical solutions of three-dimensional compressible hydrodynamic convection. Astrophysical Journal, 1990, 354, L33.	4.5	8
96	PATTERNS OF X-RAY, CHROMOSPHERIC, AND RADIO EMISSION IN LOW-MASS STARS: FAST AND SLOW MAGNETIC RECONNECTION. Astrophysical Journal, 2010, 721, 1034-1043.	4.5	7
97	Sunspots, Supergranules, and the Depth of the Solar Convection Zone. Astrophysical Journal, 1973, 186, 1059.	4.5	7
98	Response to Comment by J. V. Hollweg. Astrophysical Journal, 1997, 488, 898-900.	4.5	7
99	Shifts of the Caii K line in Hei 10830 dark points. Solar Physics, 1986, 107, 63-72.	2.5	6
100	Structure of the heliospheric MHD bow shock: Effects of ion-atom drifts. Journal of Geophysical Research, 1996, 101, 2535-2545.	3.3	6
101	Polarized light from lower main-sequence stars - Is it due to synchrotron emission. Astrophysical Journal, 1975, 201, 630.	4.5	6
102	Radio outbursts in RS Canum Venaticorum stars - Coronal heating and electron runaway. Astrophysical Journal, 1985, 295, 628.	4.5	6
103	The Umbral-penumbral Boundary in Sunspots in the Context of Magnetoconvection. Astrophysical Journal Letters, 2019, 873, L10.	8.3	5
104	Mass Loss on the Red Giant Branch: Plasmoid-driven Winds above the RGB Bump. Astrophysical Journal, 2019, 885, 113.	4.5	5
105	Solar and Stellar Flares: Questions and Problems. , 1989, , 239-259.		5
106	Mass Loss from Warm Giants: Magnetic Effects. Astrophysics and Space Science Library, 1981, , 355-359.	2.7	5
107	Closed and open magnetic fields in stellar winds. Astrophysical Journal, 1983, 266, 823.	4.5	5
108	Enhanced emission of Alfvï¿½n waves from sunspots during proton flares. Solar Physics, 1981, 70, 381-393.	2.5	4

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109	Why is the Sun so large?. American Journal of Physics, 2006, 74, 10-13.	0.7	4
110	SOLAR CYCLE VARIATION OF SOUND SPEED INSIDE THE SUN. Astrophysical Journal, 2012, 755, 79.	4.5	4
111	LSPM J1314+1320: An Oversized Magnetic Star with Constraints on the Radio Emission Mechanism. Astrophysical Journal, 2017, 843, 142.	4.5	4
112	THOR 42: A Test of Magnetic Models for Pre-main-sequence Stars. Astrophysical Journal, 2021, 907, 27.	4.5	4
113	Pre-main-sequence Stars in Taurus: Comparison of Magnetic and Nonmagnetic Model Fits to the Low-mass Stars. Astrophysical Journal, 2020, 904, 108.	4.5	4
114	On the possibility of constructing a radiative sunspot model in magnetohydrostatic equilibrium. Solar Physics, 1973, 30, 75-81.	2.5	3
115	ESTIMATES OF DENSITIES AND FILLING FACTORS FROM A COOLING TIME ANALYSIS OF SOLAR MICROFLARES OBSERVED WITHRHESSI. Astrophysical Journal, 2011, 736, 75.	4.5	3
116	Models of Spots and Flares. Astrophysics and Space Science Library, 1983, , 527-543.	2.7	3
117	Correlating Coronal Temperature and Gravitational Potential: A Test of the Nonthermal Boundary Hypothesis. Astrophysical Journal, 1996, 457, .	4.5	3
118	MECHANICAL ENERGY FLUXES ASSOCIATED WITH SATURATED CORONAL HEATING IN M DWARFS: COMPARISON WITH PREDICTIONS OF A TURBULENT DYNAMO. Astrophysical Journal, 2016, 818, 154.	4.5	2
119	Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars: Erratum. Astrophysical Journal, 1992, 397, 353.	4.5	2
120	Thin Solar Convection Zone and Sunspots. Nature: Physical Science, 1972, 235, 58-59.	0.8	1
121	A comment on ?A comment on the damping of magnetohydrodynamic waves? by Bibhas R. De. Astrophysics and Space Science, 1976, 44, L9-L11.	1.4	1
122	Solar and Stellar Flares: Questions and Problems. International Astronomical Union Colloquium, 1989, 104, 239-259.	0.1	1
123	Cyclic convection in a zone bounded by stable layers. Physical Review E, 1997, 55, 2769-2779.	2.1	1
124	THE AGE OF THE KIC 7177553 SYSTEM. Astrophysical Journal, 2017, 834, 99.	4.5	1
125	Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. Astrophysical Journal, 1995, 447, 789.	4.5	1
126	Co-Rotating Interaction Regions in Stellar Winds: Particle Acceleration and Non-Thermal Radio Emission in Hot Stars. Astrophysics and Space Science Library, 1985, , 39-42.	2.7	1

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127	Is magnetic convection important in the Sun?. Solar Physics, 1974, 38, 9-13.	2.5	0
128	Closed and Open Magnetic Fields in Stellar Atmospheres: Effects on Mass Loss from Cool Giant Stars. Symposium - International Astronomical Union, 1983, 102, 487-491.	0.1	0
129	Energy Dissipation Mechanisms in Flare Stars. Symposium - International Astronomical Union, 1985, 107, 245-262.	0.1	0
130	Heterogeneity of the Solar Atmosphere. , 1977, , 377-387.		0
131	Energy Dissipation Mechanisms in Flare Stars. , 1985, , 245-262.		0
132	Mass Loss from Cool Dwarfs: Limits on Detectability. Astrophysics and Space Science Library, 1993, , 401-403.	2.7	0
133	Acoustically Heated Chromospheres in M Dwarfs. Astrophysics and Space Science Library, 1994, , 587-588.	2.7	0
134	Comparing Observations of Cyclical Variability in Hot- and Cool-Star Winds. Globular Clusters - Guides To Galaxies, 1998, , 173-182.	0.1	0
135	Closed and Open Magnetic Fields in Stellar Atmospheres: Effects on Mass Loss from Cool Giant Stars. , 1983, , 487-491.		0
136	Rotationally Constrained Convection in the Sun: Applicable to Planetary Atmospheres?. Research Notes of the AAS, 2022, 6, 83.	0.7	0