

# Dermott Mullan

## List of Publications by Year in descending order

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136  
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138  
times ranked

2237  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rotationally Constrained Convection in the Sun: Applicable to Planetary Atmospheres?. Research Notes of the AAS, 2022, 6, 83.	0.7	0
2	THOR 42: A Test of Magnetic Models for Pre-main-sequence Stars. Astrophysical Journal, 2021, 907, 27.	4.5	4
3	Simultaneous Multiwavelength Flare Observations of EV Lacertae. Astrophysical Journal, 2021, 922, 31.	4.5	16
4	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
5	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
6	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
7	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
8	Origin of Radio-quiet Coronal Mass Ejections in Flare Stars. Astrophysical Journal, 2019, 873, 1.	4.5	18
9	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
10	The Umbral-penumbral Boundary in Sunspots in the Context of Magnetoconvection. Astrophysical Journal Letters, 2019, 873, L10.	8.3	5
11	Mass Loss on the Red Giant Branch: Plasmoid-driven Winds above the RGB Bump. Astrophysical Journal, 2019, 885, 113.	4.5	5
12	Frequencies of Flare Occurrence: Interaction between Convection and Coronal Loops. Astrophysical Journal, 2018, 854, 14.	4.5	15
13	The Magnetic Binary GJ 65: A Test of Magnetic Diffusivity Effects. Astrophysical Journal, 2018, 860, 15.	4.5	9
14	Magnetic Fields on the Flare Star Trappist-1: Consequences for Radius Inflation and Planetary Habitability. Astrophysical Journal, 2018, 869, 149.	4.5	11
15	K2 Ultracool Dwarfs Survey. III. White Light Flares Are Ubiquitous in M6-L0 Dwarfs. Astrophysical Journal, 2018, 858, 55.	4.5	54
16	Photosynthesis on a Planet Orbiting an M Dwarf: Enhanced Effectiveness during Flares. Astrophysical Journal, 2018, 865, 101.	4.5	21
17	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
18	THE AGE OF THE KIC 7177553 SYSTEM. Astrophysical Journal, 2017, 834, 99.	4.5	1

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19	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. <i>Astrophysical Journal</i> , 2017, 837, 96.	4.5	31
20	K2 Ultracool Dwarfs Survey. II. The White Light Flare Rate of Young Brown Dwarfs. <i>Astrophysical Journal</i> , 2017, 845, 33.	4.5	36
21	LSPM J1314+1320: An Oversized Magnetic Star with Constraints on the Radio Emission Mechanism. <i>Astrophysical Journal</i> , 2017, 843, 142.	4.5	4
22	Magnetic Modeling of Inflated Low-mass Stars Using Interior Fields No Larger than $\hat{\sim}1/410$ kG. <i>Astrophysical Journal</i> , 2017, 850, 58.	4.5	32
23	APPARENT NON-COEVALITY AMONG THE STARS IN UPPER SCORPIO: RESOLVING THE PROBLEM USING A MODEL OF MAGNETIC INHIBITION OF CONVECTION. <i>Astrophysical Journal</i> , 2017, 834, 67.	4.5	24
24	MECHANICAL ENERGY FLUXES ASSOCIATED WITH SATURATED CORONAL HEATING IN M DWARFS: COMPARISON WITH PREDICTIONS OF A TURBULENT DYNAMO. <i>Astrophysical Journal</i> , 2016, 818, 154.	4.5	2
25	ROTATIONâ€“ACTIVITY CORRELATIONS IN K AND M DWARFS. I. STELLAR PARAMETERS AND COMPILATIONS OF $v\hat{\sim}i$ AND $P/\sin i$ FOR A LARGE SAMPLE OF LATE-K AND M DWARFS*. <i>Astrophysical Journal</i> , 2016, 822, 97.	4.5	32
26	A MODEL FOR INTERFACE DYNAMOS IN LATE K AND EARLY M DWARFS. <i>Astrophysical Journal Letters</i> , 2015, 810, L18.	8.3	8
27	DYNAMICS OF ROTATION IN M DWARFS: INDICATIONS FOR A CHANGE IN THE DYNAMO REGIME IN STARS AT THE ONSET OF COMPLETE CONVECTION. <i>Astrophysical Journal</i> , 2015, 801, 106.	4.5	18
28	Magnetoconvective models of red dwarfs: constraints imposed by the lithium abundance. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 448, 2019-2029.	4.4	9
29	SURFACE MAGNETIC FIELD STRENGTHS: NEW TESTS OF MAGNETOCONVECTIVE MODELS OF M DWARFS. <i>Astrophysical Journal</i> , 2014, 787, 70.	4.5	38
30	SOLAR CYCLE VARIATION OF SOUND SPEED INSIDE THE SUN. <i>Astrophysical Journal</i> , 2012, 755, 79.	4.5	4
31	Precision modelling of M dwarf stars: the magnetic components of CM Draconis. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 421, 3084-3101.	4.4	48
32	ESTIMATES OF DENSITIES AND FILLING FACTORS FROM A COOLING TIME ANALYSIS OF SOLAR MICROFLARES OBSERVED WITH <i>RHESSI</i> . <i>Astrophysical Journal</i> , 2011, 736, 75.	4.5	3
33	MAGNETIC MODELS OF THE BROWN DWARFS HD 130948B AND HD 130948C. <i>Astrophysical Journal</i> , 2010, 713, 1249-1255.	4.5	18
34	PATTERNS OF X-RAY, CHROMOSPHERIC, AND RADIO EMISSION IN LOW-MASS STARS: FAST AND SLOW MAGNETIC RECONNECTION. <i>Astrophysical Journal</i> , 2010, 721, 1034-1043.	4.5	7
35	MAGNETO-CONVECTION AND LITHIUM AGE ESTIMATES OF THE $\hat{\sim}2$ PICTORIS MOVING GROUP. <i>Astrophysical Journal</i> , 2010, 723, 1599-1606.	4.5	39
36	STRUCTURAL EFFECTS OF MAGNETIC FIELDS IN BROWN DWARFS. <i>Astrophysical Journal</i> , 2009, 700, 387-394.	4.5	32

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37	FLARES ON A Bp STAR. <i>Astrophysical Journal</i> , 2009, 702, 759-766.	4.5	10
38	From Solar and Stellar Flares to Coronal Heating: Theory and Observations of How Magnetic Reconnection Regulates Coronal Conditions. <i>Astrophysical Journal</i> , 2008, 676, L69-L72.	4.5	46
39	Magnetic Cycles in the Sun: Modeling the Changes in Radius, Luminosity, and Mode Frequencies. <i>Astrophysical Journal</i> , 2007, 670, 1420-1433.	4.5	22
40	Why is the Sun so large?. <i>American Journal of Physics</i> , 2006, 74, 10-13.	0.7	4
41	A Comparative Study of Flaring Loops in Active Stars. <i>Astrophysical Journal, Supplement Series</i> , 2006, 164, 173-201.	7.7	53
42	Winds from OB Stars: A Two-Component Scenario?. <i>Astrophysical Journal</i> , 2006, 637, 506-517.	4.5	13
43	Spitzer Observations of Nearby M Dwarfs. <i>Astrophysical Journal</i> , 2006, 650, 1133-1139.	4.5	11
44	Solar Wind Statistics at 1 AU: Alfvén Speed and Plasma Beta. <i>Solar Physics</i> , 2006, 234, 325-338.	2.5	27
45	Dynamo-generated magnetic fields at the surface of a massive star. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 356, 1139-1148.	4.4	46
46	Magnetic fields in massive stars: dynamics and origin. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 348, 702-716.	4.4	56
47	Onset of Shear Instability in Rotating Red Giants. <i>Astrophysical Journal</i> , 2003, 598, 560-571.	4.5	13
48	Onset of Mass Loss in Red Giants: Association with an Evolutionary Event. <i>Astrophysical Journal</i> , 2003, 591, 1203-1209.	4.5	8
49	MHD turbulence and heating of the open field-line solar corona. <i>Nonlinear Processes in Geophysics</i> , 2003, 10, 93-100.	1.3	18
50	Short-Period Magnetic Fluctuations in Advanced Composition Explorer Solar Wind Data: Evidence for Anticorrelation with Alfvén Speed. <i>Astrophysical Journal</i> , 2003, 583, 496-505.	4.5	12
51	Coronal Heating Distribution Due to Low-Frequency, Wave-Driven Turbulence. <i>Astrophysical Journal</i> , 2002, 575, 571-577.	4.5	145
52	A Reduced Magnetohydrodynamic Model of Coronal Heating in Open Magnetic Regions Driven by Reflected Low-Frequency Alfvén Waves. <i>Astrophysical Journal</i> , 2001, 551, 565-575.	4.5	68
53	Are Magnetically Active Low-Mass M Dwarfs Completely Convective?. <i>Astrophysical Journal</i> , 2001, 559, 353-371.	4.5	197
54	Detection of Coronal Mass Ejections in V471 Tauri with the Hubble Space Telescope. <i>Astrophysical Journal</i> , 2001, 560, 919-927.	4.5	45

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55	MHD-driven Kinetic Dissipation in the Solar Wind and Corona. <i>Astrophysical Journal</i> , 2000, 537, 1054-1062.	4.5	224
56	Extreme-ultraviolet Flares in an F2 Star. <i>Astrophysical Journal</i> , 2000, 544, 475-480.	4.5	9
57	Coronal Heating by Magnetohydrodynamic Turbulence Driven by Reflected Low-Frequency Waves. <i>Astrophysical Journal</i> , 1999, 523, L93-L96.	4.5	297
58	Nonprimordial Deuterium in the Interstellar Medium. <i>Astrophysical Journal</i> , 1999, 511, 502-512.	4.5	35
59	Comparing Observations of Cyclical Variability in Hot- and Cool-Star Winds. <i>Globular Clusters - Guides To Galaxies</i> , 1998, , 173-182.	0.1	0
60	Cyclic convection in a zone bounded by stable layers. <i>Physical Review E</i> , 1997, 55, 2769-2779.	2.1	1
61	Periodic Modulation of X-Ray Intensity from Coronal Loops - Heating by Resonant Absorption?. <i>Solar Physics</i> , 1997, 176, 127-145.	2.5	36
62	Response to Comment by J. V. Hollweg. <i>Astrophysical Journal</i> , 1997, 488, 898-900.	4.5	7
63	Structure of the heliospheric MHD bow shock: Effects of ion-atom drifts. <i>Journal of Geophysical Research</i> , 1996, 101, 2535-2545.	3.3	6
64	Coronal Heating in dMe and dM Stars: Clues from the X-Ray Surface Fluxes. <i>Astrophysical Journal</i> , 1996, 464, 890.	4.5	10
65	Correlating Coronal Temperature and Gravitational Potential: A Test of the Nonthermal Boundary Hypothesis. <i>Astrophysical Journal</i> , 1996, 457, .	4.5	3
66	Magnetic moments and angular momenta of stars and planets. <i>Astrophysical Journal</i> , 1995, 443, 795.	4.5	23
67	Coronal heating in flare stars: Resonant MHD absorption?. <i>Astrophysical Journal</i> , 1995, 444, 350.	4.5	11
68	Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. <i>Astrophysical Journal</i> , 1995, 447, 789.	4.5	1
69	Gravitational damping of Alfvén waves in stellar atmospheres and winds. <i>Astrophysical Journal</i> , 1994, 430, 814.	4.5	26
70	Acoustic heating of the chromosphere and cool corona in the F star alpha Canis Minoris (Procyon). <i>Astrophysical Journal</i> , 1994, 435, 435.	4.5	20
71	Acoustically Heated Chromospheres in M Dwarfs. <i>Astrophysics and Space Science Library</i> , 1994, , 587-588.	2.7	0
72	MG II and Ly-alpha fluxes in M dwarfs - Evaluation of an acoustic model. <i>Astrophysical Journal</i> , 1993, 412, 312.	4.5	13

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73	Simulation of Compressible Convection: A Comparative Study of Boundary Conditions. <i>Astrophysical Journal</i> , 1993, 416, 733.	4.5	12
74	Mass Loss from Cool Dwarfs: Limits on Detectability. <i>Astrophysics and Space Science Library</i> , 1993, , 401-403.	2.7	0
75	Limits on detectability of mass loss from cool dwarfs. <i>Astrophysical Journal</i> , 1992, 397, 225.	4.5	51
76	Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars: Erratum. <i>Astrophysical Journal</i> , 1992, 397, 353.	4.5	2
77	Inefficient accretion by the DA2 white dwarf in V471 Tauri. <i>Astrophysical Journal</i> , 1991, 374, 707.	4.5	11
78	Three-dimensional compressible hydrodynamic convection in the sun and stars. <i>Astrophysical Journal</i> , 1991, 380, 631.	4.5	20
79	New numerical solutions of three-dimensional compressible hydrodynamic convection. <i>Astrophysical Journal</i> , 1990, 354, L33.	4.5	8
80	Solar and Stellar Flares: Questions and Problems. <i>International Astronomical Union Colloquium</i> , 1989, 104, 239-259.	0.1	1
81	Solar and Stellar Flares: Questions and Problems. , 1989, , 239-259.		5
82	Far-infrared properties of flare stars and dM stars. <i>Astrophysical Journal</i> , 1989, 343, 400.	4.5	15
83	Evidence for a cool wind from the K2 dwarf in the detached binary V471 Tauri. <i>Astrophysical Journal</i> , 1989, 339, L33.	4.5	44
84	Magnetohydrodynamic modeling of coronal bright points. <i>Astrophysical Journal</i> , 1987, 319, 971.	4.5	8
85	Shifts of the CaII K line in HeI 10830 dark points. <i>Solar Physics</i> , 1986, 107, 63-72.	2.5	6
86	Energy Dissipation Mechanisms in Flare Stars. <i>Symposium - International Astronomical Union</i> , 1985, 107, 245-262.	0.1	0
87	Non-Thermal Radio Emission From Flare Stars and RS CVn Systems. <i>Astrophysics and Space Science Library</i> , 1985, , 173-184.	2.7	11
88	Rotational modulation of chromospheric emission in cool giants and 'hybrid' stars. <i>Astrophysical Journal</i> , 1985, 288, 310.	4.5	10
89	Radio outbursts in RS Canum Venaticorum stars - Coronal heating and electron runaway. <i>Astrophysical Journal</i> , 1985, 295, 628.	4.5	6
90	Energy Dissipation Mechanisms in Flare Stars. , 1985, , 245-262.		0

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91	Co-Rotating Interaction Regions in Stellar Winds: Particle Acceleration and Non-Thermal Radio Emission in Hot Stars. <i>Astrophysics and Space Science Library</i> , 1985, , 39-42.	2.7	1
92	A note on the magnetic field strengths on the surfaces of cool dwarfs. <i>Astrophysical Journal</i> , 1984, 279, 746.	4.5	19
93	On the possibility of resonant electrodynamic coupling in the coronae of red dwarfs. <i>Astrophysical Journal</i> , 1984, 282, 603.	4.5	24
94	Corotating interaction regions in stellar winds. <i>Astrophysical Journal</i> , 1984, 283, 303.	4.5	145
95	Asymmetries in stellar MG II H and K and CA II H and K line profiles - Discrepancies between MG and CA asymmetries. <i>Astrophysical Journal</i> , 1984, 284, 769.	4.5	16
96	Closed and Open Magnetic Fields in Stellar Atmospheres: Effects on Mass Loss from Cool Giant Stars. <i>Symposium - International Astronomical Union</i> , 1983, 102, 487-491.	0.1	0
97	Models of Spots and Flares. <i>Astrophysics and Space Science Library</i> , 1983, , 527-543.	2.7	3
98	Closed and open magnetic fields in stellar winds. <i>Astrophysical Journal</i> , 1983, 266, 823.	4.5	5
99	Release of solar cosmic rays from the corona - Rayleigh-Taylor instability and reconnection. <i>Astrophysical Journal</i> , 1983, 269, 765.	4.5	10
100	Momentum flux invariance in the solar wind. <i>Astrophysical Journal</i> , 1983, 272, 325.	4.5	18
101	Closed and Open Magnetic Fields in Stellar Atmospheres: Effects on Mass Loss from Cool Giant Stars. , 1983, , 487-491.		0
102	Magnesium emission variability among late-type giant stars. <i>Astrophysical Journal</i> , 1982, 253, 716.	4.5	13
103	Enhanced emission of $Alfvén^{1/2}n$ waves from sunspots during proton flares. <i>Solar Physics</i> , 1981, 70, 381-393.	2.5	4
104	Mass Loss from Warm Giants: Magnetic Effects. <i>Astrophysics and Space Science Library</i> , 1981, , 355-359.	2.7	5
105	Stochastic acceleration of solar cosmic rays in an expanding coronal magnetic bottle. <i>Astrophysical Journal</i> , 1980, 237, 244.	4.5	8
106	Detection of mass loss in stellar chromospheres. <i>Astrophysical Journal</i> , 1980, 238, 221.	4.5	66
107	Addendum - Detection of Mass Loss in Stellar Chromospheres. <i>Astrophysical Journal</i> , 1980, 240, 718.	4.5	21
108	Magnetohydrodynamic shock propagation in the vicinity of a magnetic neutral sheet. <i>Astrophysical Journal</i> , 1980, 241, 1186.	4.5	12

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109	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. <i>Astrophysical Journal, Supplement Series</i> , 1980, 44, 383.	7.7	39
110	Motion of solar cosmic rays in the coronal magnetic field. <i>Solar Physics</i> , 1979, 62, 153-177.	2.5	16
111	On the detectability of starspot magnetic fields. <i>Astrophysical Journal</i> , 1979, 231, 152.	4.5	14
112	Model chromospheres of flare stars. I - Balmer-line profiles. <i>Astrophysical Journal</i> , 1979, 234, 579.	4.5	101
113	Supersonic stellar winds and rapid mass loss in cool stars. <i>Astrophysical Journal</i> , 1978, 226, 151.	4.5	52
114	Fast azimuthal transport of solar cosmic rays via a coronal magnetic bottle. <i>Journal of Geophysical Research</i> , 1977, 82, 5609-5620.	3.3	29
115	Solar and stellar flares. <i>Solar Physics</i> , 1977, 54, 183-206.	2.5	15
116	A model for nonmonotonic optical light curves of stellar flares. <i>Astrophysical Journal</i> , 1977, 212, 171.	4.5	11
117	Influence of stellar flare X-rays on the optical light curve. <i>Astrophysical Journal</i> , 1977, 212, 179.	4.5	15
118	Heterogeneity of the Solar Atmosphere. , 1977, , 377-387.		0
119	A comment on ?A comment on the damping of magnetohydrodynamic waves? by Bibhas R. De. <i>Astrophysics and Space Science</i> , 1976, 44, L9-L11.	1.4	1
120	Sympathetic stellar flares and electron precipitation as probes of coronal structure in flare stars. <i>Astrophysical Journal</i> , 1976, 204, 530.	4.5	11
121	Possible evidence for the occurrence of magnetic fields of order 10 kilogauss in the red dwarf star by Draconis. <i>Astrophysical Journal</i> , 1976, 204, 818.	4.5	21
122	Thermal X-rays from stellar flares - Reevaluation of scaling from solar flares. <i>Astrophysical Journal</i> , 1976, 207, 289.	4.5	30
123	Properties of minimum-flux coronae in dwarfs and giants. <i>Astrophysical Journal</i> , 1976, 209, 171.	4.5	16
124	Mean colors of stellar flare continuum.. <i>Astrophysical Journal</i> , 1976, 210, 702.	4.5	13
125	On the possibility of magnetic starspots on the primary components of W Ursae Majoris type binaries. <i>Astrophysical Journal</i> , 1975, 198, 563.	4.5	75
126	Are stellar flares energized by the missing energy in starspots. <i>Astrophysical Journal</i> , 1975, 200, 641.	4.5	12



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127	Polarized light from lower main-sequence stars - Is it due to synchrotron emission. Astrophysical Journal, 1975, 201, 630.	4.5	6
128	Is magnetic convection important in the Sun?. Solar Physics, 1974, 38, 9-13.	2.5	0
129	Sunspot Models with Alfvén Wave Emission. Astrophysical Journal, 1974, 187, 621.	4.5	27
130	Starspots on flare stars.. Astrophysical Journal, 1974, 192, 149.	4.5	56
131	On the possibility of constructing a radiative sunspot model in magnetohydrostatic equilibrium. Solar Physics, 1973, 30, 75-81.	2.5	3
132	Can oscillations grow in a sunspot umbra?. Solar Physics, 1973, 30, 83-91.	2.5	9
133	Sunspots, Supergranules, and the Depth of the Solar Convection Zone. Astrophysical Journal, 1973, 186, 1059.	4.5	7
134	Thin Solar Convection Zone and Sunspots. Nature: Physical Science, 1972, 235, 58-59.	0.8	1
135	Cellular Convection in Model Stellar Envelopes. Monthly Notices of the Royal Astronomical Society, 1971, 154, 467-489.	4.4	21
136	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