

# Darren L De Zeeuw

## List of Publications by Year in descending order

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75  
papers

7,060  
citations

87723

38  
h-index

82410

72  
g-index

75  
all docs

75  
docs citations

75  
times ranked

3146  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Solution-Adaptive Upwind Scheme for Ideal Magnetohydrodynamics. <i>Journal of Computational Physics</i> , 1999, 154, 284-309.	1.9	1,199
2	Space Weather Modeling Framework: A new tool for the space science community. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	631
3	Adaptive numerical algorithms in space weather modeling. <i>Journal of Computational Physics</i> , 2012, 231, 870-903.	1.9	560
4	An Adaptively Refined Cartesian Mesh Solver for the Euler Equations. <i>Journal of Computational Physics</i> , 1993, 104, 56-68.	1.9	270
5	Eruption of a Buoyantly Emerging Magnetic Flux Rope. <i>Astrophysical Journal</i> , 2004, 610, 588-596.	1.6	264
6	Global three-dimensional MHD simulation of a space weather event: CME formation, interplanetary propagation, and interaction with the magnetosphere. <i>Journal of Geophysical Research</i> , 2000, 105, 25053-25078.	3.3	245
7	Modeling a space weather event from the Sun to the Earth: CME generation and interplanetary propagation. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	238
8	Coupling of a global MHD code and an inner magnetospheric model: Initial results. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	203
9	A Three-dimensional Model of the Solar Wind Incorporating Solar Magnetogram Observations. <i>Astrophysical Journal</i> , 2003, 595, L57-L61.	1.6	179
10	A Three-dimensional Flux Rope Model for Coronal Mass Ejections Based on a Loss of Equilibrium. <i>Astrophysical Journal</i> , 2003, 588, L45-L48.	1.6	175
11	Heliosphere in the magnetized local interstellar medium: Results of a three-dimensional MHD simulation. <i>Journal of Geophysical Research</i> , 1998, 103, 1889-1904.	3.3	165
12	Interaction of Mercury with the Solar Wind. <i>Icarus</i> , 2000, 143, 397-406.	1.1	146
13	Three-dimensional MHD Simulation of the 2003 October 28 Coronal Mass Ejection: Comparison with LASCO Coronagraph Observations. <i>Astrophysical Journal</i> , 2008, 684, 1448-1460.	1.6	137
14	Three-dimensional MHD simulation of a flux rope driven CME. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	130
15	Modeling of Cometary X-rays Caused by Solar Wind Minor Ions. <i>Science</i> , 1997, 276, 939-942.	6.0	127
16	Semirelativistic Magnetohydrodynamics and Physics-Based Convergence Acceleration. <i>Journal of Computational Physics</i> , 2002, 177, 176-205.	1.9	127
17	Three-dimensional multiscale MHD model of cometary plasma environments. <i>Journal of Geophysical Research</i> , 1996, 101, 15233-15253.	3.3	126
18	Coronal Mass Ejection Shock and Sheath Structures Relevant to Particle Acceleration. <i>Astrophysical Journal</i> , 2005, 622, 1225-1239.	1.6	122

#	ARTICLE	IF	CITATIONS
19	A numerical study of solar wind-magnetosphere interaction for northward interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 1999, 104, 28361-28378.	3.3	98
20	Sun-to-thermosphere simulation of the 28-30 October 2003 storm with the Space Weather Modeling Framework. <i>Space Weather</i> , 2007, 5, n/a-n/a.	1.3	97
21	An adaptive MHD method for global space weather simulations. <i>IEEE Transactions on Plasma Science</i> , 2000, 28, 1956-1965.	0.6	90
22	Pickup oxygen ion velocity space and spatial distribution around Mars. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	80
23	Axisymmetric modeling of cometary mass loading on an adaptively refined grid: MHD results. <i>Journal of Geophysical Research</i> , 1994, 99, 21525.	3.3	68
24	Io's plasma environment during the Galileo flyby: Global three-dimensional MHD modeling with adaptive mesh refinement. <i>Journal of Geophysical Research</i> , 1998, 103, 9071-9081.	3.3	65
25	Magnetospheric configuration for Parker-spiral IMF conditions: Results of a 3D AMR MHD simulation. <i>Advances in Space Research</i> , 2000, 26, 139-149.	1.2	64
26	Using steady state MHD results to predict the global state of the magnetosphere-ionosphere system. <i>Journal of Geophysical Research</i> , 2001, 106, 30067-30076.	3.3	64
27	The interaction between the magnetosphere of Saturn and Titan's ionosphere. <i>Journal of Geophysical Research</i> , 2001, 106, 6151-6160.	3.3	62
28	Solution-adaptive magnetohydrodynamics for space plasmas: sun-to-earth simulations. <i>Computing in Science and Engineering</i> , 2004, 6, 14-35.	1.2	62
29	The magnetospheric and ionospheric response to a very strong interplanetary shock and coronal mass ejection. <i>Advances in Space Research</i> , 2006, 38, 263-272.	1.2	62
30	Dust-Gas Interrelations In Comets: Observations And Theory. <i>Earth, Moon and Planets</i> , 1997, 79, 275-306.	0.3	57
31	A parallel explicit/implicit time stepping scheme on block-adaptive grids. <i>Journal of Computational Physics</i> , 2006, 217, 722-758.	1.9	57
32	Interaction of the Saturnian magnetosphere with Titan: Results of a three-dimensional MHD simulation. <i>Journal of Geophysical Research</i> , 1999, 104, 2451-2458.	3.3	56
33	A three-dimensional MHD study of solar wind mass loading processes at Venus: Effects of photoionization, electron impact ionization, and charge exchange. <i>Journal of Geophysical Research</i> , 1998, 103, 23625-23638.	3.3	53
34	3D multi-fluid MHD studies of the solar wind interaction with Mars. <i>Geophysical Research Letters</i> , 1999, 26, 2689-2692.	1.5	53
35	Understanding storm-time ring current development through data-model comparisons of a moderate storm. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	51
36	Probing the Edge of the Solar System: Formation of an Unstable Jet-Sheet. <i>Astrophysical Journal</i> , 2003, 591, L61-L65.	1.6	47

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37	The solar wind interaction with Mars: results of three-dimensional three-species MHD studies. <i>Advances in Space Research</i> , 2001, 27, 1837-1846.	1.2	43
38	A model of solar windâ€™magnetosphereâ€™ionosphere coupling for due northward IMF. <i>Planetary and Space Science</i> , 2000, 48, 29-39.	0.9	39
39	BREAKOUT CORONAL MASS EJECTION OR STREAMER BLOWOUT: THE BUGLE EFFECT. <i>Astrophysical Journal</i> , 2009, 693, 1178-1187.	1.6	39
40	Modeling the Sun-to-Earth propagation of a very fast CME. <i>Advances in Space Research</i> , 2006, 38, 253-262.	1.2	38
41	Adaptive blocks. , 1997, , .		36
42	Quantitative Analysis of H2O+Coma Images Using a Multiscale MHD Model with Detailed Ion Chemistry. <i>Icarus</i> , 1997, 130, 373-386.	1.1	36
43	Magnetic Effects at the Edge of the Solar System: MHD Instabilities, the de Laval Nozzle Effect, and an Extended Jet. <i>Astrophysical Journal</i> , 2004, 611, 575-586.	1.6	36
44	Multiscale MHD simulation of a coronal mass ejection and its interaction with the magnetosphereâ€™ionosphere system. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2000, 62, 1515-1525.	0.6	32
45	Realâ€™Time SWMF at CCMC: Assessing the Dst Output From Continuous Operational Simulations. <i>Space Weather</i> , 2018, 16, 1583-1603.	1.3	32
46	A 3D global MHD simulation of Saturn's magnetosphere. <i>Advances in Space Research</i> , 2000, 26, 1681-1690.	1.2	31
47	Titan's magnetic wake: Atmospheric or magnetospheric interaction. <i>Journal of Geophysical Research</i> , 2000, 105, 10761-10770.	3.3	31
48	Global MHD modeling of Mercury's magnetosphere with applications to the MESSENGER mission and dynamo theory. <i>Icarus</i> , 2008, 195, 1-15.	1.1	31
49	Adaptive Mesh Refinement for Global Magnetohydrodynamic Simulation. <i>Lecture Notes in Physics</i> , 2003, , 247-274.	0.3	30
50	Three-dimensional MHD simulation of the lunar wake. <i>Science China Earth Sciences</i> , 2013, 56, 330-338.	2.3	29
51	The magnetospheric banana current. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 1009-1021.	0.8	29
52	MHD Simulation of Comets: The Plasma Environment of Comet Hale-Bopp. <i>Earth, Moon and Planets</i> , 1997, 79, 179-207.	0.3	28
53	On Europa's magnetospheric interaction: A MHD simulation of the E4 flyby. <i>Journal of Geophysical Research</i> , 1999, 104, 19983-19992.	3.3	28
54	A new axisymmetric MHD model of the interaction of the solar wind with Venus. <i>Journal of Geophysical Research</i> , 1996, 101, 4547-4556.	3.3	26

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55	IMPACT: Science goals and firsts with STEREO. <i>Advances in Space Research</i> , 2005, 36, 1534-1543.	1.2	23
56	Io's magnetospheric interaction: an MHD model with day-night asymmetry. <i>Planetary and Space Science</i> , 2001, 49, 337-344.	0.9	21
57	Deciphering magnetospheric cross-field currents. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	21
58	A Parallel Adaptive 3D MHD Scheme for Modeling Coronal and Solar Wind Plasma Flows. <i>Space Science Reviews</i> , 1999, 87, 193-198.	3.7	20
59	Two-species, 3D, MHD simulation of Europa's interaction with Jupiter's magnetosphere. <i>Geophysical Research Letters</i> , 2000, 27, 1791-1794.	1.5	18
60	The SPASE Data Model: A Metadata Standard for Registering, Finding, Accessing, and Using Heliophysics Data Obtained From Observations and Modeling. <i>Space Weather</i> , 2018, 16, 1899-1911.	1.3	18
61	Ionospheric control of the dawn-dusk asymmetry of the Mars magnetotail current sheet. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 6397-6414.	0.8	17
62	Three-dimensional MHD simulation of coronal mass ejections. <i>Advances in Space Research</i> , 2000, 26, 793-800.	1.2	13
63	Magnetospheric cross-field currents during the January 6 <sup>th</sup> , 2011 high-speed stream-driven interval. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2013, 99, 78-84.	0.6	12
64	The induced magnetosphere of comet Halley: 4. Comparison of in situ observations and numerical simulations. <i>Journal of Geophysical Research</i> , 1999, 104, 28309-28319.	3.3	10
65	High performance computer methods applied to predictive space weather simulations. <i>IEEE Transactions on Plasma Science</i> , 2000, 28, 1931-1937.	0.6	10
66	Title is missing!. <i>Astrophysics and Space Science</i> , 2000, 274, 407-421.	0.5	10
67	A PHYSICS-BASED SOFTWARE FRAMEWORK FOR SUN-EARTH CONNECTION MODELING. , 2005, , 383-397.		10
68	3D multiscale mass loaded MHD simulations of the solar wind interaction with Mars. <i>Advances in Space Research</i> , 2000, 26, 1571-1575.	1.2	7
69	Global MHD simulations for southward IMF: a pair of wings in the flanks. <i>Advances in Space Research</i> , 2001, 28, 1763-1771.	1.2	7
70	Plasma flow in the cometosheath of comet Halley. <i>Advances in Space Research</i> , 1997, 20, 275-278.	1.2	4
71	Parallel, Adaptive-Mesh-Refinement MHD for Global Space-Weather Simulations. <i>AIP Conference Proceedings</i> , 2003, , .	0.3	4
72	Parallel, AMR MHD for Global Space Weather Simulations. <i>Lecture Notes in Computational Science and Engineering</i> , 2005, , 473-490.	0.1	4

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73	Magnetic field structure at the diamagnetic cavity boundary (Numerical simulations). Geophysical Research Letters, 2000, 27, 3817-3820.	1.5	3
74	Interpretation of vega observations at comet halley applying three-dimensional MHD simulations. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2000, 25, 153-156.	0.2	2
75	Halloween Storm Simulations with the Space Weather Modeling Framework. , 2006, , .		2