

Raymond J Walker

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4833757/publications.pdf>

Version: 2024-02-01

127
papers

7,538
citations

87888

38
h-index

53230

85
g-index

135
all docs

135
docs citations

135
times ranked

2935
citing authors

#	ARTICLE	IF	CITATIONS
1	Bursty bulk flows in the inner central plasma sheet. <i>Journal of Geophysical Research</i> , 1992, 97, 4027-4039.	3.3	980
2	Statistical characteristics of bursty bulk flow events. <i>Journal of Geophysical Research</i> , 1994, 99, 21257.	3.3	642
3	Galileo Magnetometer Measurements: A Stronger Case for a Subsurface Ocean at Europa. <i>Science</i> , 2000, 289, 1340-1343.	12.6	576
4	Induced magnetic fields as evidence for subsurface oceans in Europa and Callisto. <i>Nature</i> , 1998, 395, 777-780.	27.8	539
5	Discovery of Ganymede's magnetic field by the Galileo spacecraft. <i>Nature</i> , 1996, 384, 537-541.	27.8	348
6	Alfven wave resonances in a realistic magnetospheric magnetic field geometry. <i>Journal of Geophysical Research</i> , 1981, 86, 4589-4596.	3.3	248
7	Probabilistic models of the Jovian magnetopause and bow shock locations. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 17-1.	3.3	195
8	Multipoint analysis of a bursty bulk flow event on April 11, 1985. <i>Journal of Geophysical Research</i> , 1996, 101, 4967-4989.	3.3	184
9	The structure of the distant geomagnetic tail during long periods of northward IMF. <i>Geophysical Research Letters</i> , 1995, 22, 349-352.	4.0	182
10	Observations and simulations of non-local acceleration of electrons in magnetotail magnetic reconnection events. <i>Nature Physics</i> , 2011, 7, 360-365.	16.7	165
11	Magnetospheric plasma pressures in the midnight meridian: Observations from 2.5 to 35 R_E . <i>Journal of Geophysical Research</i> , 1989, 94, 5264-5272.	3.3	137
12	Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 1993, 98, 5727-5742.	3.3	133
13	The magnetic field and magnetosphere of Ganymede. <i>Geophysical Research Letters</i> , 1997, 24, 2155-2158.	4.0	127
14	Wave and particle characteristics of earthward electron injections associated with dipolarization fronts. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	118
15	Intermittent short-duration magnetic field anomalies in the Io torus: Evidence for plasma interchange?. <i>Geophysical Research Letters</i> , 1997, 24, 2127-2130.	4.0	107
16	A global magnetohydrodynamic simulation of the response of the magnetosphere to a northward turning of the interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 1994, 99, 11027.	3.3	99
17	Improved mapping of Jupiter's auroral features to magnetospheric sources. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	98
18	Reconnection and flows in the Jovian magnetotail as inferred from magnetometer observations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	93

#	ARTICLE	IF	CITATIONS
19	Mirror mode structures in the Jovian magnetosheath. Journal of Geophysical Research, 2006, 111, .	3.3	88
20	A global magnetohydrodynamic simulation of the magnetosphere when the interplanetary magnetic field is southward: The onset of magnetotail reconnection. Journal of Geophysical Research, 1993, 98, 17235-17249.	3.3	87
21	Properties of Ganymede's magnetosphere inferred from improved three-dimensional MHD simulations. Journal of Geophysical Research, 2009, 114, .	3.3	84
22	Three-dimensional MHD simulations of Ganymede's magnetosphere. Journal of Geophysical Research, 2008, 113, .	3.3	80
23	Observations of an Electron Diffusion Region in Symmetric Reconnection with Weak Guide Field. Astrophysical Journal, 2019, 870, 34.	4.5	79
24	Coalescence of Macroscopic Flux Ropes at the Subsolar Magnetopause: Magnetospheric Multiscale Observations. Physical Review Letters, 2017, 119, 055101.	7.8	72
25	MHD simulations of Io's interaction with the plasma torus. Journal of Geophysical Research, 1998, 103, 19867-19877.	3.3	68
26	Cluster observations of kinetic structures and electron acceleration within a dynamic plasma bubble. Journal of Geophysical Research: Space Physics, 2013, 118, 674-684.	2.4	66
27	A global magnetohydrodynamic simulation of the Jovian magnetosphere. Journal of Geophysical Research, 1998, 103, 225-235.	3.3	65
28	On the importance of antiparallel reconnection when the dipole tilt and IMF By are nonzero. Journal of Geophysical Research, 2006, 111, .	3.3	64
29	An MHD simulation of B_y -dependent magnetospheric convection and field-aligned currents during northward IMF. Journal of Geophysical Research, 1985, 90, 10835-10842.	3.3	52
30	An MHD simulation of plasma flow past Io: Alfvén and slow mode perturbations. Geophysical Research Letters, 1988, 15, 1311-1314.	4.0	51
31	Absence of an internal magnetic field at Callisto. Nature, 1997, 387, 262-264.	27.8	51
32	Dynamics of Ganymede's magnetopause: Intermittent reconnection under steady external conditions. Journal of Geophysical Research, 2010, 115, .	3.3	44
33	Static magnetic field models consistent with nearly isotropic plasma pressure. Geophysical Research Letters, 1987, 14, 872-875.	4.0	43
34	Taylor scale and effective magnetic Reynolds number determination from plasma sheet and solar wind magnetic field fluctuations. Journal of Geophysical Research, 2007, 112, .	3.3	43
35	On the origin of the crescent-shaped distributions observed by MMS at the magnetopause. Journal of Geophysical Research: Space Physics, 2017, 122, 2024-2039.	2.4	43
36	Adiabatic acceleration of suprathermal electrons associated with dipolarization fronts. Journal of Geophysical Research, 2012, 117, .	3.3	42

#	ARTICLE	IF	CITATIONS
37	Substorm evolution as revealed by THEMIS satellites and a global MHD simulation. Journal of Geophysical Research, 2009, 114, .	3.3	41
38	A magnetohydrodynamic simulation of the formation of magnetic flux tubes at the Earth's dayside magnetopause. Geophysical Research Letters, 1989, 16, 155-158.	4.0	39
39	Magnetohydrodynamic simulations of the effects of the solar wind on the Jovian magnetosphere. Planetary and Space Science, 2001, 49, 237-245.	1.7	39
40	Ion sources and acceleration mechanisms inferred from local distribution functions. Geophysical Research Letters, 1997, 24, 955-958.	4.0	38
41	Configuration and dynamics of the Jovian magnetosphere. Journal of Geophysical Research, 2006, 111, .	3.3	38
42	A new convection state at substorm onset: Results from an MHD study. Geophysical Research Letters, 2002, 29, 26-1-26-4.	4.0	37
43	Suprathermal Electron Acceleration in a Reconnecting Magnetotail: Large-Scale Kinetic Simulation. Journal of Geophysical Research: Space Physics, 2018, 123, 8087-8108.	2.4	34
44	Localized reconnection and substorm onset on Dec. 22, 1996. Geophysical Research Letters, 1999, 26, 3545-3548.	4.0	33
45	Magnetospheric convection at Saturn as a function of IMF BZ. Geophysical Research Letters, 2007, 34, .	4.0	32
46	Dipolarization and turbulence in the plasma sheet during a substorm: THEMIS observations and global MHD simulations. Journal of Geophysical Research: Space Physics, 2013, 118, 7752-7761.	2.4	32
47	Observation of high-frequency electrostatic waves in the vicinity of the reconnection ion diffusion region by the spacecraft of the Magnetospheric Multiscale (MMS) mission. Geophysical Research Letters, 2016, 43, 4808-4815.	4.0	32
48	Magnetospheric Multiscale Observations of an Ion Diffusion Region With Large Guide Field at the Magnetopause: Current System, Electron Heating, and Plasma Waves. Journal of Geophysical Research: Space Physics, 2018, 123, 1834-1852.	2.4	32
49	Evidence that crater flux transfer events are initial stages of typical flux transfer events. Journal of Geophysical Research, 2010, 115, .	3.3	31
50	A simulation study of dynamics in the distant Jovian magnetotail. Journal of Geophysical Research, 2010, 115, .	3.3	31
51	A simulation study of Kelvin-Helmholtz waves at Saturn's magnetopause. Journal of Geophysical Research, 2011, 116, .	3.3	30
52	Vortex-associated reconnection for northward IMF in the Kronian magnetosphere. Geophysical Research Letters, 2007, 34, .	4.0	29
53	Multiscale study of electron energization during unsteady reconnection events. Journal of Geophysical Research: Space Physics, 2015, 120, 4784-4799.	2.4	29
54	Dynamics of the Jovian magnetosphere for northward interplanetary magnetic field (IMF). Geophysical Research Letters, 2005, 32, .	4.0	28

#	ARTICLE	IF	CITATIONS
55	A simulation study of currents in the Jovian magnetosphere. Planetary and Space Science, 2003, 51, 295-307.	1.7	27
56	The effect of mass loading on the temperature of a flowing plasma. Geophysical Research Letters, 1989, 16, 763-766.	4.0	26
57	A Global Magnetohydrodynamic Simulation of the Origin and Evolution of Magnetic Flux Ropes in the Magnetotail. Journal of Geomagnetism and Geoelectricity, 1996, 48, 765-779.	0.9	26
58	Magnetic flux ropes in 3-Dimensional MHD simulations. Geophysical Monograph Series, 1990, , 669-678.	0.1	25
59	Global magnetohydrodynamic simulation of reconnection and turbulence in the plasma sheet. Journal of Geophysical Research, 2010, 115, .	3.3	25
60	Observation of Threeâ€Dimensional Magnetic Reconnection in the Terrestrial Magnetotail. Journal of Geophysical Research: Space Physics, 2017, 122, 9513-9520.	2.4	25
61	A stochastic sea: The source of plasma sheet boundary layer ion structures observed by Cluster. Journal of Geophysical Research, 2005, 110, .	3.3	24
62	Oxygen acceleration in magnetotail reconnection. Journal of Geophysical Research: Space Physics, 2017, 122, 618-639.	2.4	23
63	Generation and properties of in vivo flux transfer events. Journal of Geophysical Research, 2012, 117, .	3.3	22
64	Oxygen impacts on dipolarization fronts and reconnection rate. Journal of Geophysical Research: Space Physics, 2016, 121, 1148-1166.	2.4	22
65	Sheared magnetic field structure in Jupiter's dusk magnetosphere: Implications for return currents. Journal of Geophysical Research, 2002, 107, SMP 17-1.	3.3	21
66	Electron energization and transport in the magnetotail during substorms. Journal of Geophysical Research: Space Physics, 2014, 119, 1060-1079.	2.4	21
67	Magnetospheric convection during prolonged intervals with southward interplanetary magnetic field. Journal of Geophysical Research, 2006, 111, .	3.3	20
68	Quantitative Modeling of Planetary Magnetospheric Magnetic Fields. Geophysical Monograph Series, 0, , 9-34.	0.1	20
69	Turbulence in a global magnetohydrodynamic simulation of the Earth's magnetosphere during northward and southward interplanetary magnetic field. Nonlinear Processes in Geophysics, 2012, 19, 165-175.	1.3	19
70	Source distributions of substorm ions observed in the near-Earth magnetotail. Geophysical Research Letters, 1999, 26, 955-958.	4.0	18
71	A Possible Signature of Magnetic Cavity Mode Oscillations in ISEE Spacecraft Observations.. Journal of Geomagnetism and Geoelectricity, 1997, 49, 1079-1098.	0.9	18
72	A simulation study of particle energization observed by THEMIS spacecraft during a substorm. Journal of Geophysical Research, 2009, 114, .	3.3	17

#	ARTICLE	IF	CITATIONS
73	Simulating the effect of centrifugal forces in Jupiter's magnetosphere. Journal of Geophysical Research: Space Physics, 2014, 119, 1925-1950.	2.4	17
74	Non-self-similar scaling of plasma sheet and solar wind probability distribution functions of magnetic field fluctuations. Journal of Geophysical Research, 2006, 111, .	3.3	16
75	Externally driven magnetic reconnection. Geophysical Monograph Series, 1984, , 272-281.	0.1	15
76	Explanation of the inward displacement of Io's hot plasma torus and consequences for sputtering sources. Nature, 1985, 315, 373-378.	27.8	15
77	Comparison of empirical magnetic field models and global MHD simulations: The near-tail currents. Geophysical Research Letters, 1995, 22, 675-678.	4.0	15
78	Interplanetary magnetic field control of the entry of solar energetic particles into the magnetosphere. Journal of Geophysical Research, 2002, 107, SSH 7-1-SSH 7-20.	3.3	15
79	A multiscale study of ion heating in Earth's magnetotail. Geophysical Research Letters, 2016, 43, 515-524.	4.0	15
80	Two models of cross polar cap potential saturation compared: Siscoe's Hill model versus Kivelson's Ridley model. Journal of Geophysical Research: Space Physics, 2013, 118, 794-803.	2.4	14
81	The origin of the near-Earth plasma population during a substorm on November 24, 1996. Journal of Geophysical Research, 2000, 105, 2589-2605.	3.3	13
82	The linear dependence of polar cap index on its controlling factors in solar wind and magnetotail. Journal of Geophysical Research, 2012, 117, .	3.3	13
83	Multiscale MHD-Kinetic PIC Study of Energy Fluxes Caused by Reconnection. Journal of Geophysical Research: Space Physics, 2020, 125, no.	2.4	13
84	An MHD simulation of the interaction of the solar wind with the outflowing plasma from a comet. Geophysical Research Letters, 1986, 13, 929-932.	4.0	12
85	Field-aligned currents and magnetospheric convection—A comparison between MHD simulations and observations. Geophysical Monograph Series, 1988, , 39-49.	0.1	12
86	Forces driving fast flow channels, dipolarizations, and turbulence in the magnetotail. Journal of Geophysical Research: Space Physics, 2016, 121, 11,063.	2.4	12
87	Identifying the electron diffusion region in a realistic simulation of Earth's magnetotail. Geophysical Research Letters, 2016, 43, 6005-6011.	4.0	12
88	On the importance of accurate solar wind measurements for studying magnetospheric dynamics. Journal of Geophysical Research, 2008, 113, .	3.3	11
89	Observations and simulations of a highly structured plasma sheet during northward IMF. Journal of Geophysical Research, 2010, 115, .	3.3	11
90	Flow vortices associated with flux transfer events moving along the magnetopause: Observations and an MHD simulation. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	11

#	ARTICLE	IF	CITATIONS
91	Turbulent Energization of Electron Power Law Tails during Magnetic Reconnection. Physical Review Letters, 2020, 125, 225101.	7.8	11
92	The architecture of a multi-tiered virtual observatory. Earth Science Informatics, 2008, 1, 21-28.	3.2	10
93	A statistical study of the inner edge of the electron plasma sheet and the net convection potential as a function of geomagnetic activity. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	10
94	A magnetohydrodynamic simulation study of Kronian field-aligned currents and auroras. Journal of Geophysical Research, 2012, 117, .	3.3	10
95	Propagation of Pi2 pulsations through the braking region in global MHD simulations. Journal of Geophysical Research: Space Physics, 2015, 120, 10,574.	2.4	10
96	Modeling the entry and trapping of solar energetic particles in the magnetosphere during the November 24–25, 2001 storm. Journal of Geophysical Research, 2009, 114, .	3.3	9
97	Dynamic Plasma Interaction at Io: Multispecies Hybrid Simulations. Journal of Geophysical Research: Space Physics, 2019, 124, 313-341.	2.4	9
98	Embedding particle-in-cell simulations in global magnetohydrodynamic simulations of the magnetosphere. Journal of Plasma Physics, 2019, 85, .	2.1	9
99	Long-term variation of driven and unloading effects on polar cap dynamics. Journal of Geophysical Research, 2012, 117, .	3.3	8
100	Direct auroral precipitation from the magnetotail during substorms. Geophysical Research Letters, 2013, 40, 3787-3792.	4.0	8
101	Simulating the Magnetosphere: The Structure of the Magnetotail. Geophysical Monograph Series, 0, , 61-68.	0.1	8
102	Modeling substorm ion injection observed by the THEMIS and LANL spacecraft in the near-Earth magnetotail. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	7
103	Utilizing the polar cap index to explore strong driving of polar cap dynamics. Journal of Geophysical Research, 2012, 117, .	3.3	7
104	The Entry of Solar Wind Ions into the Magnetosphere. Geophysical Monograph Series, 0, , 311-319.	0.1	7
105	Determination of Particle Sources for a Geotail Distribution Function Observed on May 23, 1995. Geophysical Monograph Series, 2013, , 297-312.	0.1	7
106	The Relation of N ⁺ Auroral Streamers to Auroral Expansion. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027063.	2.4	7
107	The Locations and Shapes of Jupiter's Bow Shock and Magnetopause. AIP Conference Proceedings, 2005, , .	0.4	6
108	A brave new (virtual) world: distributed searches, relevance scoring and facets. Earth Science Informatics, 2008, 1, 29-34.	3.2	6

#	ARTICLE	IF	CITATIONS
109	Generation of Pi2 pulsations by intermittent earthward propagating dipolarization fronts: An MHD case study. Journal of Geophysical Research: Space Physics, 2013, 118, 6364-6377.	2.4	5
110	Contrasting electron acceleration processes during two substorms. Journal of Geophysical Research: Space Physics, 2014, 119, 5382-5400.	2.4	5
111	Structure and Dynamics of Three-Dimensional Magnetotail Reconnection. Journal of Geophysical Research: Space Physics, 2018, 123, 8241-8260.	2.4	5
112	Characteristics of Reconnection Sites and Fast Flow Channels in an MHD Simulation. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027701.	2.4	5
113	Quasiperiodic 1-Hour Alfvén Wave Resonances in Saturn's Magnetosphere: Theory for a Realistic Plasma/Field Model. Geophysical Research Letters, 2021, 48, e2020GL090967.	4.0	5
114	Magnetohydrodynamic Turbulence in the Earth's Magnetotail From Observations and Global MHD Simulations. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	4
115	Do We Need to Consider Electrons' Kinetic Effects to Properly Model a Planetary Magnetosphere: The Case of Mercury. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	4
116	Magnetic islands in the near geomagnetic tail and its implications for the mechanism of 1054 UT CDAW 6 substorm. Geophysical Monograph Series, 1990, , 647-654.	0.1	3
117	The morphology and architecture of a distributed data system. AIP Conference Proceedings, 1993, , .	0.4	3
118	Ion dynamics associated with substorm dipolarization fronts. Science China Earth Sciences, 2014, 57, 2543-2551.	5.2	3
119	Patterns of magnetic field merging sites on the magnetopause. Geophysical Monograph Series, 1984, , 156-157.	0.1	2
120	Ion cyclotron instability at Io: Hybrid simulation results compared to in situ observations. Journal of Geophysical Research: Space Physics, 2016, 121, 7514-7534.	2.4	2
121	Simulation Studies of Plasma Transport at Earth, Jupiter and Saturn. Astrophysics and Space Science Library, 2016, , 345-372.	2.7	2
122	The design and implementation of scalable data systems and incremental data sets. AIP Conference Proceedings, 1993, , .	0.4	1
123	The effect of solar wind structures on the storm-time magnetosphere. Proceedings of the International Astronomical Union, 2006, 2, 283.	0.0	0
124	A registry framework and Rosetta attributes for distributed science. Earth Science Informatics, 2010, 3, 127-133.	3.2	0
125	Designing science web sites. Earth Science Informatics, 2010, 3, 51-57.	3.2	0
126	Magnetohydrodynamic simulations of the magnetopauses of Saturn, Jupiter and the Earth. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
127	An MHD Simulation of the Interaction of the Solar Wind with the Outflowing Plasma from a Comet. Special Publications, 2013, , 929-932.	0.0	0