X H Deng

List of Publications by Year
in descending order

112 papers	3,507 citations	126907 33 h-index	149698 56 g-index
113 all docs	113 docs citations	113 times ranked	1568 citing authors

#	Article	IF	Citations
1	Rapid magnetic reconnection in the Earthâ€™s magnetosphere mediated by whistler waves. Nature, 2001, 410, 557-560.	27.8	268
2	THEMIS observation of multiple dipolarization fronts and associated wave characteristics in the nearâ€Earth magnetotail. Geophysical Research Letters, 2009, 36, .	4.0	178
3	Breaking Lorentz reciprocity to overcome the time-bandwidth limit in physics and engineering. Science, 2017, 356, 1260-1264.	12.6	174
4	Kinetic structure and wave properties associated with sharp dipolarization front observed by Cluster. Annales Geophysicae, 2012, 30, 97-107.	1.6	124
5	Wave and particle characteristics of earthward electron injections associated with dipolarization fronts. Journal of Geophysical Research, 2010, 115, .	3.3	118
6	Observation of Electrostatic Solitary Waves associated with reconnection on the dayside magnetopause boundary. Geophysical Research Letters, 2003, 30, .	4.0	113
7	Electron acceleration in the reconnection diffusion region: Cluster observations. Geophysical Research Letters, 2012, 39, .	4.0	95
8	Electromagnetic energy conversion at dipolarization fronts: Multispacecraft results. Journal of Geophysical Research: Space Physics, 2015, 120, 4496-4502.	2.4	86
9	Geotail encounter with reconnection diffusion region in the Earth's magnetotail: Evidence of multiple X lines collisionless reconnection?. Journal of Geophysical Research, 2004, 109, .	3.3	85
10	Magnetospheric Multiscale Observations of Electron Vortex Magnetic Hole in the Turbulent Magnetosheath Plasma. Astrophysical Journal Letters, 2017, 836, L27.	8.3	85
11	Observations of an Electron Diffusion Region in Symmetric Reconnection with Weak Guide Field. Astrophysical Journal, 2019, 870, 34.	4.5	79
12	Observations of turbulence within reconnection jet in the presence of guide field. Geophysical Research Letters, 2012, 39, .	4.0	78
13	KINETIC TURBULENCE IN THE TERRESTRIAL MAGNETOSHEATH: CLUSTER OBSERVATIONS. Astrophysical Journal Letters, 2014, 789, L28.	8.3	74
14	Coalescence of Macroscopic Flux Ropes at the Subsolar Magnetopause: Magnetospheric Multiscale Observations. Physical Review Letters, 2017, 119, 055101.	7.8	72
15	Observation of waves near lower hybrid frequency in the reconnection region with thin current sheet. Journal of Geophysical Research, 2009, 114, .	3.3	69
16	Improvement of a Deep Learning Algorithm for Total Electron Content Maps: Image Completion. Journal of Geophysical Research: Space Physics, 2019, 124, 790-800.	2.4	68
17	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
18	A statistical study of kineticâ€size magnetic holes in turbulent magnetosheath: MMS observations. Journal of Geophysical Research: Space Physics, 2017, 122, 8577-8588.	2.4	64

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19	Two types of whistler waves in the hall reconnection region. Journal of Geophysical Research: Space Physics, 2016, 121, 6639-6646.	2.4	57
20	Electric field structure inside the secondary island in the reconnection diffusion region. Physics of Plasmas, 2012, 19, .	1.9	53
21	Observation of largeâ€amplitude magnetosonic waves at dipolarization fronts. Journal of Geophysical Research: Space Physics, 2014, 119, 4335-4347.	2.4	53
22	MMS observations of ionâ€scale magnetic island in the magnetosheath turbulent plasma. Geophysical Research Letters, 2016, 43, 7850-7858.	4.0	53
23	Wave properties in the magnetic reconnection diffusion region with high Î²: Application of the kâ€filtering method to Cluster multispacecraft data. Journal of Geophysical Research, 2010, 115, .	3.3	48
24	Observations of Whistler Waves Correlated with Electron-scale Coherent Structures in the Magnetosheath Turbulent Plasma. Astrophysical Journal, 2018, 861, 29.	4.5	46
25	The occurrence and wave properties of EMIC waves observed by the Magnetospheric Multiscale (MMS) mission. Journal of Geophysical Research: Space Physics, 2017, 122, 8228-8240.	2.4	44
26	Observations of the Electron Jet Generated by Secondary Reconnection in the Terrestrial Magnetotail. Astrophysical Journal, 2018, 862, 144.	4.5	43
27	Energy Conversion and Dissipation at Dipolarization Fronts: A Statistical Overview. Geophysical Research Letters, 2019, 46, 12693-12701.	4.0	41
28	Evidence for Secondary Flux Rope Generated by the Electron Kelvin-Helmholtz Instability in a Magnetic Reconnection Diffusion Region. Physical Review Letters, 2018, 120, 075101.	7.8	40
29	Dynamics and waves near multiple magnetic null points in reconnection diffusion region. Journal of Geophysical Research, 2009, 114, .	3.3	37
30	In Situ Observation of Magnetic Reconnection Between an Earthward Propagating Flux Rope and the Geomagnetic Field. Geophysical Research Letters, 2018, 45, 8729-8737.	4.0	37
31	Density cavity in magnetic reconnection diffusion region in the presence of guide field. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	36
32	Plasma physics of magnetic island coalescence during magnetic reconnection. Journal of Geophysical Research: Space Physics, 2014, 119, 6177-6189.	2.4	34
33	Characteristic distribution and possible roles of waves around the lower hybrid frequency in the magnetotail reconnection region. Journal of Geophysical Research: Space Physics, 2014, 119, 8228-8242.	2.4	34
34	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
35	Observations of Flux Ropes With Strong Energy Dissipation in the Magnetotail. Geophysical Research Letters, 2019, 46, 580-589.	4.0	31
36	Kinetic simulations of secondary reconnection in the reconnection jet. Journal of Geophysical Research: Space Physics, 2015, 120, 6188-6198.	2.4	30

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37	In situ observations of flux rope at the separatrix region of magnetic reconnection. Journal of Geophysical Research: Space Physics, 2016, 121, 205-213.	2.4	30
38	Occurrence rate of whistler waves in the magnetotail reconnection region. Journal of Geophysical Research: Space Physics, 2017, 122, 7188-7196.	2.4	30
39	Kinetic simulations of electric field structure within magnetic island during magnetic reconnection and their applications to the satellite observations. Journal of Geophysical Research: Space Physics, 2014, 119, 7402-7412.	2.4	26
40	A statistical study on the whistler waves behind dipolarization fronts. Journal of Geophysical Research: Space Physics, 2015, 120, 1086-1095.	2.4	25
41	Observation of Threeâ€Dimensional Magnetic Reconnection in the Terrestrial Magnetotail. Journal of Geophysical Research: Space Physics, 2017, 122, 9513-9520.	2.4	25
42	Observations of Secondary Magnetic Reconnection in the Turbulent Reconnection Outflow. Geophysical Research Letters, 2021, 48, e2020GL091215.	4.0	24
43	Evidence of deflected superâ€AlfvÃ©nic electron jet in a reconnection region with weak guide field. Journal of Geophysical Research: Space Physics, 2014, 119, 1541-1548.	2.4	23
44	Dawn-dusk scale of dipolarization front in the Earthâ€™s magnetotail: multi-cases study. Astrophysics and Space Science, 2015, 357, 1.	1.4	23
45	On the Energy Conversion Rate during Collisionless Magnetic Reconnection. Astrophysical Journal Letters, 2019, 883, L22.	8.3	23
46	The Role of Upper Hybrid Waves in the Magnetotail Reconnection Electron Diffusion Region. Astrophysical Journal Letters, 2019, 881, L28.	8.3	22
47	Observations of a Kineticâ€Scale Magnetic Hole in a Reconnection Diffusion Region. Geophysical Research Letters, 2019, 46, 6248-6257.	4.0	22
48	Solar Flare Prediction Based on the Fusion of Multiple Deep-learning Models. Astrophysical Journal, Supplement Series, 2021, 257, 50.	7.7	22
49	MMS Observations of Kinetic-size Magnetic Holes in the Terrestrial Magnetotail Plasma Sheet. Astrophysical Journal, 2019, 875, 113.	4.5	21
50	Electron-scale Vertical Current Sheets in a Bursty Bulk Flow in the Terrestrial Magnetotail. Astrophysical Journal Letters, 2019, 872, L26.	8.3	19
51	Force and Energy Balance of the Dipolarization Front. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028278.	2.4	19
52	Analysis of Turbulence Properties in the Mercury Plasma Environment Using MESSENGER Observations. Astrophysical Journal, 2020, 891, 159.	4.5	19
53	Revealing the sub-structures of the magnetic reconnection separatrix via particle-in-cell simulation. Physics of Plasmas, 2012, 19, .	1.9	18
54	Observations of Electron Vortex at the Dipolarization Front. Geophysical Research Letters, 2020, 47, e2020GL088448.	4.0	18

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55	Periodical Dipolarization Processes in Earth's Magnetotail. Geophysical Research Letters, 2019, 46, 13640-13648.	4.0	17
56	Prediction of the Dst Index with Bagging Ensemble-learning Algorithm. Astrophysical Journal, Supplement Series, 2020, 248, 14.	7.7	17
57	Electron-only Reconnection in an Ion-scale Current Sheet at the Magnetopause. Astrophysical Journal, 2021, 922, 54.	4.5	17
58	Reconnection Front Associated with Asymmetric Magnetic Reconnection: Particle-in-cell Simulations. Astrophysical Journal Letters, 2019, 881, L22.	8.3	15
59	Statistical Properties of Current, Energy Conversion, and Electron Acceleration in Flux Ropes in the Terrestrial Magnetotail. Geophysical Research Letters, 2021, 48, e2021GL093458.	4.0	14
60	Observation of directional change of core field inside flux ropes within one reconnection diffusion region in the Earthâ€™s magnetotail. Science Bulletin, 2014, 59, 4797-4803.	1.7	13
61	Observations of Electronâ€Only Magnetic Reconnection Associated With Macroscopic Magnetic Flux Ropes. Geophysical Research Letters, 2020, 47, e2020GL089659.	4.0	13
62	First Observations of Magnetosonic Waves With Nonlinear Harmonics. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027724.	2.4	13
63	Excitation of Whistler Waves Through the Bidirectional Fieldâ€Aligned Electron Beams With Electron Temperature Anisotropy: MMS Observations. Geophysical Research Letters, 2020, 47, e2020GL087515.	4.0	13
64	Multiple CNN Variants and Ensemble Learning for Sunspot Group Classification by Magnetic Type. Astrophysical Journal, Supplement Series, 2021, 257, 38.	7.7	13
65	Threeâ€Dimensional Electronâ€Scale Magnetic Reconnection in Earth's Magnetosphere. Geophysical Research Letters, 2021, 48, .	4.0	12
66	Electron Acceleration Rate at Dipolarization Fronts. Astrophysical Journal, 2020, 903, 84.	4.5	12
67	Effects of cold electron number density variation on whistler-mode wave growth. Annales Geophysicae, 2014, 32, 889-898.	1.6	12
68	Threeâ€dimensional hybrid simulation of magnetosheath reconnection under northward and southward interplanetary magnetic field. Journal of Geophysical Research, 2010, 115, .	3.3	11
69	A comparative evaluation of the activities of thiol group and hydroxyl group in low-frequency vibrations using terahertz spectroscopy and DFT calculations. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 214, 246-251.	3.9	11
70	Global Spatial Distribution of Dipolarization Fronts in the Saturn's Magnetosphere: Cassini Observations. Geophysical Research Letters, 2021, 48, e2021GL092701.	4.0	11
71	Measurements of Energy Dissipation in the Electron Diffusion Region. Geophysical Research Letters, 2021, 48, .	4.0	11
72	Geneâ€“gene interaction of CFH, ARMS2, and ARMS2/HTRA1 on the risk of neovascular age-related macular degeneration and polypoidal choroidal vasculopathy in Chinese population. Eye, 2015, 29, 691-698.	2.1	10

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73	Extension of the Electron Diffusion Region in a Guide Field Magnetic Reconnection at Magnetopause. Astrophysical Journal Letters, 2020, 892, L5.	8.3	10
74	Observational Evidence of Magnetic Reconnection in the Terrestrial Foreshock Region. Astrophysical Journal, 2021, 922, 56.	4.5	10
75	Stacked Electron Diffusion Regions and Electron Kelvinâ€“Helmholtz Vortices within the Ion Diffusion Region of Collisionless Magnetic Reconnection. Astrophysical Journal Letters, 2022, 926, L27.	8.3	10
76	Anisotropy of Magnetic Field Spectra at Kinetic Scales of Solar Wind Turbulence as Revealed by the Parker Solar Probe in the Inner Heliosphere. Astrophysical Journal Letters, 2022, 929, L6.	8.3	10
77	Energetic electrons associated with magnetic reconnection in the sheath of interplanetary coronal mass ejection. Science Bulletin, 2012, 57, 1455-1460.	1.7	9
78	Subâ€ionâ€scale Dynamics of the Ion Diffusion Region in the Magnetotail: MMS Observations. Journal of Geophysical Research: Space Physics, 2019, 124, 7898-7911.	2.4	9
79	Electron Jets in the Terrestrial Magnetotail: A Statistical Overview. Astrophysical Journal, 2020, 896, 67.	4.5	9
80	Formation of Negative J â‹… Eâ€² in the Outer Electron Diffusion Region During Magnetic Reconnection. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	9
81	The Prediction of Stormâ€Time Thermospheric Mass Density by LSTMâ€Based Ensemble Learning. Space Weather, 2022, 20, .	3.7	9
82	Tripolar electric field Structure in guide field magnetic reconnection. Annales Geophysicae, 2018, 36, 373-379.	1.6	8
83	Background Parameter Effects on Linearâ€“Nonlinear Chorus Wave Growth in the Planetary Magnetosphere. Astrophysical Journal, 2020, 904, 105.	4.5	8
84	Distribution of Negative JÂ·Eâ€² in the Inflow Edge of the Inner Electron Diffusion Region During Tail Magnetic Reconnection: Simulations Vs. Observations. Geophysical Research Letters, 2022, 49, .	4.0	8
85	Deformation of plasma bubbles and the associated field aligned current system during substorm recovery phase. Journal of Geophysical Research, 2012, 117, .	3.3	6
86	Large threeâ€dimensional ellipsoid sphereâ€shaped structure of electrostatic solitary waves in the terrestrial bow shock under condition of Î©_{ce}/Ï‰_{pe}â€‰<â€‰1.0 Geophysical Research Letters, 2013, 40, 3356-3361.	4.0	6
87	Silibinin attenuates Streptococcus suis serotype 2 virulence by targeting suilysin. Journal of Applied Microbiology, 2019, 126, 435-442.	3.1	6
88	Whistler and Broadband Electrostatic Waves in the Multiple Xâ€Line Reconnection at the Magnetopause. Geophysical Research Letters, 2021, 48, e2020GL091320.	4.0	6
89	Multiâ€Spacecraft Measurement of Anisotropic Spatial Correlation Functions at Kinetic Range in the Magnetosheath Turbulence. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028780.	2.4	6
90	Energy conversion during multiple X-lines reconnection. Physics of Plasmas, 2020, 27, .	1.9	6

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91	Observation of Highâ€Frequency Electrostatic Waves in the Dip Region Ahead of Dipolarization Front. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029408.	2.4	6
92	Modulation of Whistler Mode Waves by Ultraâ€Low Frequency Wave in a Macroscale Magnetic Hole: MMS Observations. Geophysical Research Letters, 2021, 48, e2021GL096056.	4.0	6
93	Observations of Pitch Angle Changes of Electrons and Highâ€Frequency Wave Activities in the Magnetotail Plasma Bubble. Journal of Geophysical Research: Space Physics, 2022, 127, e2021JA029761.	2.4	5
94	Characteristics of Turbulence Driven by Transient Magnetic Reconnection in the Terrestrial Magnetotail. Astrophysical Journal, 2022, 925, 17.	4.5	5
95	The Shortâ€time Prediction of the Energetic Electron Flux in the Planetary Radiation Belt Based on Stacking Ensembleâ€Learning Algorithm. Space Weather, 0, , .	3.7	5
96	Kineticâ€Size Magnetic Holes in the Terrestrial Foreshock Region. Geophysical Research Letters, 2022, 49, .	4.0	5
97	A new method to identify flux ropes in space plasmas. Annales Geophysicae, 2018, 36, 1275-1283.	1.6	4
98	Statistical Characteristics of Electron Pitch Angle Distributions Inside the Magnetopasue Based on MMS Observations. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028291.	2.4	4
99	Small-scale dipolarization fronts in the Earthâ€²s magnetotail. Earth and Planetary Physics, 2019, 3, 358-364.	1.1	4
100	Temperatureâ€Dependent Terahertz Spectra of Isonicotinamide in the Form I Studied Using the Quasiâ€Harmonic Approximation. ChemPhysChem, 2022, 23, .	2.1	4
101	Subâ€Structures of the Separatrix Region During Magnetic Reconnection. Geophysical Research Letters, 2022, 49, .	4.0	4
102	Statistics of the Intense Current Structure in the Dayside Magnetopause Boundary Layer. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029890.	2.4	3
103	Evidence for Whistler Waves Propagating Into the Electron Diffusion Region of Collisionless Magnetic Reconnection. Geophysical Research Letters, 2022, 49, .	4.0	3
104	Energization of Cold Ions in Magnetic Reconnection: Particleâ€inâ€Cell Simulation. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	3
105	Electronâ€Only Magnetic Reconnection: Lessons Learned From Magnetic Island Coalescence. Geophysical Research Letters, 2022, 49, .	4.0	2
106	Intense Energy Conversion Events at the Magnetopause Boundary Layer. Geophysical Research Letters, 2022, 49, .	4.0	2
107	Topological Refraction in Kagome Split-Ring Photonic Insulators. Nanomaterials, 2022, 12, 1493.	4.1	2
108	Kinetic properties of collisionless magnetic reconnection in space plasma: in situ observations. Reviews of Modern Plasma Physics, 2022, 6, .	4.1	2

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109	Sensitivity of global energy confinement to the boundary condition due to coupling of MHD and transport processes. Journal of Plasma Physics, 1994, 51, 201-210.	2.1	1
110	Three-dimensional nonlinear mode coupling of the double-tearing instability. Journal of Plasma Physics, 1997, 58, 223-232.	2.1	1
111	Contrasting the Mechanisms of Reconnection-driven Electron Acceleration with In Situ Observations from MMS in the Terrestrial Magnetotail. Astrophysical Journal, 2022, 931, 135.	4.5	1
112	Observations of Whistler-mode Waves and Large-amplitude Electrostatic Waves Associated with a Dipolarization Front in the Bursty Bulk Flow. Astrophysical Journal, 2022, 933, 105.	4.5	1