

Shan Wang

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,977
citations

186265

28
h-index

175258

52
g-index

86
all docs

86
docs citations

86
times ranked

1447
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron-scale measurements of magnetic reconnection in space. <i>Science</i> , 2016, 352, aaf2939.	12.6	545
2	Electron-scale dynamics of the diffusion region during symmetric magnetic reconnection in space. <i>Science</i> , 2018, 362, 1391-1395.	12.6	221
3	The process of electron acceleration during collisionless magnetic reconnection. <i>Physics of Plasmas</i> , 2006, 13, 012309.	1.9	205
4	MMS observations of electron-scale filamentary currents in the reconnection exhaust and near the X line. <i>Geophysical Research Letters</i> , 2016, 43, 6060-6069.	4.0	99
5	Ion-scale secondary flux ropes generated by magnetopause reconnection as resolved by MMS. <i>Geophysical Research Letters</i> , 2016, 43, 4716-4724.	4.0	95
6	MMS observations of large guide field symmetric reconnection between colliding reconnection jets at the center of a magnetic flux rope at the magnetopause. <i>Geophysical Research Letters</i> , 2016, 43, 5536-5544.	4.0	84
7	Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause. <i>Geophysical Research Letters</i> , 2016, 43, 3042-3050.	4.0	81
8	Magnetospheric Multiscale Dayside Reconnection Electron Diffusion Region Events. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 4858-4878.	2.4	79
9	Electron energization and mixing observed by MMS in the vicinity of an electron diffusion region during magnetopause reconnection. <i>Geophysical Research Letters</i> , 2016, 43, 6036-6043.	4.0	67
10	Electron energization and structure of the diffusion region during asymmetric reconnection. <i>Geophysical Research Letters</i> , 2016, 43, 2405-2412.	4.0	60
11	Electron Energy Partition across Interplanetary Shocks. I. Methodology and Data Product. <i>Astrophysical Journal, Supplement Series</i> , 2019, 243, 8.	7.7	57
12	Electron distribution functions in the electron diffusion region of magnetic reconnection: Physics behind the fine structures. <i>Geophysical Research Letters</i> , 2014, 41, 8688-8695.	4.0	55
13	Electron diffusion region during magnetopause reconnection with an intermediate guide field: Magnetospheric multiscale observations. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 5235-5246.	2.4	52
14	Observational Evidence of Magnetic Reconnection in the Terrestrial Bow Shock Transition Region. <i>Geophysical Research Letters</i> , 2019, 46, 562-570.	4.0	47
15	Drift waves, intense parallel electric fields, and turbulence associated with asymmetric magnetic reconnection at the magnetopause. <i>Geophysical Research Letters</i> , 2017, 44, 2978-2986.	4.0	46
16	The Effect of a Guide Field on Local Energy Conversion During Asymmetric Magnetic Reconnection: MMS Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 11,342.	2.4	45
17	Drift turbulence, particle transport, and anomalous dissipation at the reconnecting magnetopause. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	45
18	Dependence of the dayside magnetopause reconnection rate on local conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 6386-6408.	2.4	42

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19	Localized Oscillatory Energy Conversion in Magnetopause Reconnection. <i>Geophysical Research Letters</i> , 2018, 45, 1237-1245.	4.0	41
20	Electron Energy Partition across Interplanetary Shocks. II. Statistics. <i>Astrophysical Journal, Supplement Series</i> , 2019, 245, 24.	7.7	40
21	Electron Bulk Acceleration and Thermalization at Earth's Quasiperpendicular Bow Shock. <i>Physical Review Letters</i> , 2018, 120, 225101.	7.8	38
22	The heavy ion diffusion region in magnetic reconnection in the Earth's magnetotail. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 3535-3551.	2.4	37
23	Magnetic Reconnection in a Quasi-Parallel Shock: Two-Dimensional Local Particle-in-Cell Simulation. <i>Geophysical Research Letters</i> , 2019, 46, 9352-9361.	4.0	36
24	Reconnection With Magnetic Flux Pileup at the Interface of Converging Jets at the Magnetopause. <i>Geophysical Research Letters</i> , 2019, 46, 1937-1946.	4.0	36
25	MMS Observation of Asymmetric Reconnection Supported by 3D Electron Pressure Divergence. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 1806-1821.	2.4	34
26	Electron Diffusion Regions in Magnetotail Reconnection Under Varying Guide Fields. <i>Geophysical Research Letters</i> , 2019, 46, 6230-6238.	4.0	33
27	High-Frequency Wave Generation in Magnetotail Reconnection: Linear Dispersion Analysis. <i>Geophysical Research Letters</i> , 2019, 46, 4089-4097.	4.0	32
28	Hot magnetospheric O ⁺ and cold ion behavior in magnetopause reconnection: Cluster observations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 9601-9623.	2.4	30
29	Lower-Hybrid Drift Waves Driving Electron Nongyrotropic Heating and Vortical Flows in a Magnetic Reconnection Layer. <i>Physical Review Letters</i> , 2020, 125, 025103.	7.8	29
30	Electron heating in the exhaust of magnetic reconnection with negligible guide field. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 2104-2130.	2.4	27
31	On the role of separatrix instabilities in heating the reconnection outflow region. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	27
32	Hot flow anomaly formation and evolution: Cluster observations. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 4360-4380.	2.4	25
33	Electron Inflow Velocities and Reconnection Rates at Earth's Magnetopause and Magnetosheath. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089082.	4.0	23
34	Magnetic reconnection and kinetic waves generated in the Earth's quasi-parallel bow shock. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	21
35	Solitary Magnetic Structures at Quasi-Parallel Collisionless Shocks: Formation. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090800.	4.0	21
36	Electron Energy Partition across Interplanetary Shocks. III. Analysis. <i>Astrophysical Journal</i> , 2020, 893, 22.	4.5	21

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37	Cluster observations of hot flow anomalies with large flow deflections: 1. Velocity deflections. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 732-743.	2.4	20
38	The effect of reconnection electric field on crescent and U-shaped distribution functions in asymmetric reconnection with no guide field. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	20
39	The physical foundation of the reconnection electric field. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	20
40	Cluster observations of hot flow anomalies with large flow deflections: 2. Bow shock geometry at HFA edges. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 418-433.	2.4	19
41	Two-scale ion meandering caused by the polarization electric field during asymmetric reconnection. <i>Geophysical Research Letters</i> , 2016, 43, 7831-7839.	4.0	19
42	Wave Phenomena and Beam-Plasma Interactions at the Magnetopause Reconnection Region. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 1118-1133.	2.4	19
43	Local Excitation of Whistler Mode Waves and Associated Langmuir Waves at Dayside Reconnection Regions. <i>Geophysical Research Letters</i> , 2018, 45, 8793-8802.	4.0	19
44	MMS Measurements of the Vlasov Equation: Probing the Electron Pressure Divergence Within Thin Current Sheets. <i>Geophysical Research Letters</i> , 2019, 46, 7862-7872.	4.0	19
45	The two-fluid dynamics and energetics of the asymmetric magnetic reconnection in laboratory and space plasmas. <i>Nature Communications</i> , 2018, 9, 5223.	12.8	18
46	Propagation characteristics of young hot flow anomalies near the bow shock: Cluster observations. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4142-4154.	2.4	17
47	Energy Conversion and Partition in the Asymmetric Reconnection Diffusion Region. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8185-8205.	2.4	17
48	Whistler Wave Generation by Anisotropic Tail Electrons During Asymmetric Magnetic Reconnection in Space and Laboratory. <i>Geophysical Research Letters</i> , 2018, 45, 8054-8061.	4.0	17
49	Case and statistical studies on the evolution of hot flow anomalies. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 6332-6346.	2.4	16
50	Lower Hybrid Drift Waves During Guide Field Reconnection. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087192.	4.0	16
51	On the Collisionless Asymmetric Magnetic Reconnection Rate. <i>Geophysical Research Letters</i> , 2018, 45, 3311-3318.	4.0	15
52	Structures in the terms of the Vlasov equation observed at Earth's magnetopause. <i>Nature Physics</i> , 2021, 17, 1056-1065.	16.7	15
53	Effect of the Reconnection Electric Field on Electron Distribution Functions in the Diffusion Region of Magnetotail Reconnection. <i>Geophysical Research Letters</i> , 2018, 45, 12,142.	4.0	14
54	Magnetopause Reconnection and Indents Induced by Foreshock Turbulence. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093029.	4.0	14

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55	Strong reconnection electric fields in shock-driven turbulence. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	13
56	Cases and statistical study on Hot Flow Anomalies with Cluster spacecraft data. <i>Science China Technological Sciences</i> , 2012, 55, 1402-1418.	4.0	12
57	Ion demagnetization in the magnetopause current layer observed by MMS. <i>Geophysical Research Letters</i> , 2016, 43, 4850-4857.	4.0	12
58	Ion-scale Current Structures in Short Large-amplitude Magnetic Structures. <i>Astrophysical Journal</i> , 2020, 898, 121.	4.5	12
59	Whistler wave generation by electron temperature anisotropy during magnetic reconnection at the magnetopause. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	11
60	Electron Dynamics Within the Electron Diffusion Region of Asymmetric Reconnection. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 146-162.	2.4	10
61	Multiscale Coupling During Magnetopause Reconnection: Interface Between the Electron and Ion Diffusion Regions. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027985.	2.4	10
62	Lower-hybrid drift waves and their interaction with plasmas in a 3D symmetric reconnection simulation with zero guide field. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	9
63	Parallel electron heating in the magnetospheric inflow region. <i>Geophysical Research Letters</i> , 2017, 44, 4384-4392.	4.0	8
64	Effects of the guide field on electron distribution functions in the diffusion region of asymmetric reconnection. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	8
65	Lower-Hybrid Wave Structures and Interactions With Electrons Observed in Magnetotail Reconnection Diffusion Regions. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	2.4	8
66	Hodographic approach for determining spacecraft trajectories through magnetic reconnection diffusion regions. <i>Geophysical Research Letters</i> , 2017, 44, 1625-1633.	4.0	7
67	Four-Spacecraft Measurements of the Shape and Dimensionality of Magnetic Structures in the Near-Earth Plasma Environment. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 6850-6868.	2.4	7
68	Solitary Magnetic Structures Developed From Gyro-Resonance With Solar Wind Ions at Mars and Earth. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	7
69	Theory, observations, and simulations of kinetic entropy in a magnetotail electron diffusion region. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	7
70	Assessing the Time Dependence of Reconnection With Poynting's Theorem: MMS Observations. <i>Geophysical Research Letters</i> , 2018, 45, 2886-2892.	4.0	6
71	Lower-Hybrid-Drift Vortices in the Electron-Scale Magnetic Reconnection Layer. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090726.	4.0	6
72	A statistical study of three-second foreshock ULF waves observed by the Magnetospheric Multiscale mission. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	6

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73	Whistler waves generated by nongyrotropic and gyrotropic electron beams during asymmetric guide field reconnection. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	6
74	Ion Behaviors in the Reconnection Diffusion Region of a Corrugated Magnetotail Current Sheet. <i>Geophysical Research Letters</i> , 2019, 46, 5014-5020.	4.0	5
75	A Case Study of Nonresonant Mode 3â€™s ULF Waves Observed by MMS. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028557.	2.4	5
76	A New Look at the Electron Diffusion Region in Asymmetric Magnetic Reconnection. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028456.	2.4	4
77	The EDR inflow region of a reconnecting current sheet in the geomagnetic tail. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	3
78	Electron-scale temperature gradients in kinetic equilibrium: MMS observations and Vlasovâ€™Maxwell solutions. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	2
79	Automatic Identification and New Observations of Ion Energy Dispersion Events in the Cusp Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	2.4	2
80	Correlating the interplanetary factors to distinguish extreme and major geomagnetic storms. <i>Earth and Planetary Physics</i> , 2021, 5, 1-7.	1.1	1