Shan Wang

List of Publications by Year
in descending order

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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	Solitary Magnetic Structures Developed From Gyroâ€Resonance With Solar Wind Ions at Mars and Earth. Geophysical Research Letters, 2022, 49, .	4.0	7
2	Whistler waves generated by nongyrotropic and gyrotropic electron beams during asymmetric guide field reconnection. Physics of Plasmas, 2022, 29, .	1.9	6
3	Theory, observations, and simulations of kinetic entropy in a magnetotail electron diffusion region. Physics of Plasmas, 2022, 29, .	1.9	7
4	Strong reconnection electric fields in shock-driven turbulence. Physics of Plasmas, 2022, 29, .	1.9	13
5	Automatic Identification and New Observations of Ion Energy Dispersion Events in the Cusp Ionosphere. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	2
6	Lowerâ€Hybrid Wave Structures and Interactions With Electrons Observed in Magnetotail Reconnection Diffusion Regions. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	8
7	The EDR inflow region of a reconnecting current sheet in the geomagnetic tail. Physics of Plasmas, 2022, 29, .	1.9	3
8	A New Look at the Electron Diffusion Region in Asymmetric Magnetic Reconnection. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028456.	2.4	4
9	Correlating the interplanetary factors to distinguish extreme and major geomagnetic storms. Earth and Planetary Physics, 2021, 5, 1-7.	1.1	1
10	Magnetopause Reconnection and Indents Induced by Foreshock Turbulence. Geophysical Research Letters, 2021, 48, e2021GL093029.	4.0	14
11	Structures in the terms of the Vlasov equation observed at Earthâ€™s magnetopause. Nature Physics, 2021, 17, 1056-1065.	16.7	15
12	Lower-hybrid drift waves and their interaction with plasmas in a 3D symmetric reconnection simulation with zero guide field. Physics of Plasmas, 2021, 28, .	1.9	9
13	A statistical study of three-second foreshock ULF waves observed by the Magnetospheric Multiscale mission. Physics of Plasmas, 2021, 28, .	1.9	6
14	Solitary Magnetic Structures at Quasiâ€Parallel Collisionless Shocks: Formation. Geophysical Research Letters, 2021, 48, e2020GL090800.	4.0	21
15	Electron-scale temperature gradients in kinetic equilibrium: MMS observations and Vlasovâ€“Maxwell solutions. Physics of Plasmas, 2021, 28, .	1.9	2
16	Multiscale Coupling During Magnetopause Reconnection: Interface Between the Electron and Ion Diffusion Regions. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027985.	2.4	10
17	Lower Hybrid Drift Waves During Guide Field Reconnection. Geophysical Research Letters, 2020, 47, e2020GL087192.	4.0	16
18	Lowerâ€Hybridâ€Drift Vortices in the Electronâ€Scale Magnetic Reconnection Layer. Geophysical Research Letters, 2020, 47, e2020GL090726.	4.0	6

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19	A Case Study of Nonresonant Mode 3â€s ULF Waves Observed by MMS. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028557.	2.4	5
20	Magnetic reconnection and kinetic waves generated in the Earth's quasi-parallel bow shock. Physics of Plasmas, 2020, 27, .	1.9	21
21	Electron Inflow Velocities and Reconnection Rates at Earth's Magnetopause and Magnetosheath. Geophysical Research Letters, 2020, 47, e2020GL089082.	4.0	23
22	Lower-Hybrid Drift Waves Driving Electron Nongyrotropic Heating and Vortical Flows in a Magnetic Reconnection Layer. Physical Review Letters, 2020, 125, 025103.	7.8	29
23	Electron Energy Partition across Interplanetary Shocks. III. Analysis. Astrophysical Journal, 2020, 893, 22.	4.5	21
24	Ion-scale Current Structures in Short Large-amplitude Magnetic Structures. Astrophysical Journal, 2020, 898, 121.	4.5	12
25	Magnetic Reconnection in a Quasiâ€Parallel Shock: Twoâ€Dimensional Local Particleâ€inâ€Cell Simulation. Geophysical Research Letters, 2019, 46, 9352-9361.	4.0	36
26	Electron Energy Partition across Interplanetary Shocks. I. Methodology and Data Product. Astrophysical Journal, Supplement Series, 2019, 243, 8.	7.7	57
27	Fourâ€Spacecraft Measurements of the Shape and Dimensionality of Magnetic Structures in the Nearâ€Earth Plasma Environment. Journal of Geophysical Research: Space Physics, 2019, 124, 6850-6868.	2.4	7
28	Effects of the guide field on electron distribution functions in the diffusion region of asymmetric reconnection. Physics of Plasmas, 2019, 26, .	1.9	8
29	Reconnection With Magnetic Flux Pileup at the Interface of Converging Jets at the Magnetopause. Geophysical Research Letters, 2019, 46, 1937-1946.	4.0	36
30	Observational Evidence of Magnetic Reconnection in the Terrestrial Bow Shock Transition Region. Geophysical Research Letters, 2019, 46, 562-570.	4.0	47
31	MMS Measurements of the Vlasov Equation: Probing the Electron Pressure Divergence Within Thin Current Sheets. Geophysical Research Letters, 2019, 46, 7862-7872.	4.0	19
32	Electron Diffusion Regions in Magnetotail Reconnection Under Varying Guide Fields. Geophysical Research Letters, 2019, 46, 6230-6238.	4.0	33
33	Whistler wave generation by electron temperature anisotropy during magnetic reconnection at the magnetopause. Physics of Plasmas, 2019, 26, .	1.9	11
34	Ion Behaviors in the Reconnection Diffusion Region of a Corrugated Magnetotail Current Sheet. Geophysical Research Letters, 2019, 46, 5014-5020.	4.0	5
35	Highâ€Frequency Wave Generation in Magnetotail Reconnection: Linear Dispersion Analysis. Geophysical Research Letters, 2019, 46, 4089-4097.	4.0	32
36	Electron Energy Partition across Interplanetary Shocks. II. Statistics. Astrophysical Journal, Supplement Series, 2019, 245, 24.	7.7	40

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37	The physical foundation of the reconnection electric field. Physics of Plasmas, 2018, 25, .	1.9	20
38	Assessing the Time Dependence of Reconnection With Poynting's Theorem: MMS Observations. Geophysical Research Letters, 2018, 45, 2886-2892.	4.0	6
39	MMS Observation of Asymmetric Reconnection Supported by 3â€Ð Electron Pressure Divergence. Journal of Geophysical Research: Space Physics, 2018, 123, 1806-1821.	2.4	34
40	Electron Dynamics Within the Electron Diffusion Region of Asymmetric Reconnection. Journal of Geophysical Research: Space Physics, 2018, 123, 146-162.	2.4	10
41	Localized Oscillatory Energy Conversion in Magnetopause Reconnection. Geophysical Research Letters, 2018, 45, 1237-1245.	4.0	41
42	Wave Phenomena and Beamâ€Plasma Interactions at the Magnetopause Reconnection Region. Journal of Geophysical Research: Space Physics, 2018, 123, 1118-1133.	2.4	19
43	On the Collisionless Asymmetric Magnetic Reconnection Rate. Geophysical Research Letters, 2018, 45, 3311-3318.	4.0	15
44	Magnetospheric Multiscale Dayside Reconnection Electron Diffusion Region Events. Journal of Geophysical Research: Space Physics, 2018, 123, 4858-4878.	2.4	79
45	Effect of the Reconnection Electric Field on Electron Distribution Functions in the Diffusion Region of Magnetotail Reconnection. Geophysical Research Letters, 2018, 45, 12,142.	4.0	14
46	Electron-scale dynamics of the diffusion region during symmetric magnetic reconnection in space. Science, 2018, 362, 1391-1395.	12.6	221
47	On the role of separatrix instabilities in heating the reconnection outflow region. Physics of Plasmas, 2018, 25, .	1.9	27
48	The two-fluid dynamics and energetics of the asymmetric magnetic reconnection in laboratory and space plasmas. Nature Communications, 2018, 9, 5223.	12.8	18
49	Energy Conversion and Partition in the Asymmetric Reconnection Diffusion Region. Journal of Geophysical Research: Space Physics, 2018, 123, 8185-8205.	2.4	17
50	Local Excitation of Whistler Mode Waves and Associated Langmuir Waves at Dayside Reconnection Regions. Geophysical Research Letters, 2018, 45, 8793-8802.	4.0	19
51	Electron Bulk Acceleration and Thermalization at Earthâ€™s Quasiperpendicular Bow Shock. Physical Review Letters, 2018, 120, 225101.	7.8	38
52	Whistler Wave Generation by Anisotropic Tail Electrons During Asymmetric Magnetic Reconnection in Space and Laboratory. Geophysical Research Letters, 2018, 45, 8054-8061.	4.0	17
53	Drift turbulence, particle transport, and anomalous dissipation at the reconnecting magnetopause. Physics of Plasmas, 2018, 25, .	1.9	45
54	Hodographic approach for determining spacecraft trajectories through magnetic reconnection diffusion regions. Geophysical Research Letters, 2017, 44, 1625-1633.	4.0	7

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55	Electron diffusion region during magnetopause reconnection with an intermediate guide field: Magnetospheric multiscale observations. Journal of Geophysical Research: Space Physics, 2017, 122, 5235-5246.	2.4	52
56	Parallel electron heating in the magnetospheric inflow region. Geophysical Research Letters, 2017, 44, 4384-4392.	4.0	8
57	Drift waves, intense parallel electric fields, and turbulence associated with asymmetric magnetic reconnection at the magnetopause. Geophysical Research Letters, 2017, 44, 2978-2986.	4.0	46
58	The Effect of a Guide Field on Local Energy Conversion During Asymmetric Magnetic Reconnection: MMS Observations. Journal of Geophysical Research: Space Physics, 2017, 122, 11,342.	2.4	45
59	The effect of reconnection electric field on crescent and U-shaped distribution functions in asymmetric reconnection with no guide field. Physics of Plasmas, 2017, 24, .	1.9	20
60	Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause. Geophysical Research Letters, 2016, 43, 3042-3050.	4.0	81
61	Ionâ€scale secondary flux ropes generated by magnetopause reconnection as resolved by MMS. Geophysical Research Letters, 2016, 43, 4716-4724.	4.0	95
62	Electron energization and structure of the diffusion region during asymmetric reconnection. Geophysical Research Letters, 2016, 43, 2405-2412.	4.0	60
63	Electron heating in the exhaust of magnetic reconnection with negligible guide field. Journal of Geophysical Research: Space Physics, 2016, 121, 2104-2130.	2.4	27
64	Twoâ€scale ion meandering caused by the polarization electric field during asymmetric reconnection. Geophysical Research Letters, 2016, 43, 7831-7839.	4.0	19
65	Electron-scale measurements of magnetic reconnection in space. Science, 2016, 352, aaf2939.	12.6	545
66	MMS observations of electronâ€scale filamentary currents in the reconnection exhaust and near the X line. Geophysical Research Letters, 2016, 43, 6060-6069.	4.0	99
67	MMS observations of large guide field symmetric reconnection between colliding reconnection jets at the center of a magnetic flux rope at the magnetopause. Geophysical Research Letters, 2016, 43, 5536-5544.	4.0	84
68	Ion demagnetization in the magnetopause current layer observed by MMS. Geophysical Research Letters, 2016, 43, 4850-4857.	4.0	12
69	Electron energization and mixing observed by MMS in the vicinity of an electron diffusion region during magnetopause reconnection. Geophysical Research Letters, 2016, 43, 6036-6043.	4.0	67
70	Propagation characteristics of young hot flow anomalies near the bow shock: Cluster observations. Journal of Geophysical Research: Space Physics, 2015, 120, 4142-4154.	2.4	17
71	Dependence of the dayside magnetopause reconnection rate on local conditions. Journal of Geophysical Research: Space Physics, 2015, 120, 6386-6408.	2.4	42
72	The heavy ion diffusion region in magnetic reconnection in the Earth's magnetotail. Journal of Geophysical Research: Space Physics, 2015, 120, 3535-3551.	2.4	37

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73	Case and statistical studies on the evolution of hot flow anomalies. Journal of Geophysical Research: Space Physics, 2015, 120, 6332-6346.	2.4	16
74	Hot magnetospheric O⁺ and cold ion behavior in magnetopause reconnection: Cluster observations. Journal of Geophysical Research: Space Physics, 2014, 119, 9601-9623.	2.4	30
75	Electron distribution functions in the electron diffusion region of magnetic reconnection: Physics behind the fine structures. Geophysical Research Letters, 2014, 41, 8688-8695.	4.0	55
76	Hot flow anomaly formation and evolution: Cluster observations. Journal of Geophysical Research: Space Physics, 2013, 118, 4360-4380.	2.4	25
77	Cluster observations of hot flow anomalies with large flow deflections: 1. Velocity deflections. Journal of Geophysical Research: Space Physics, 2013, 118, 732-743.	2.4	20
78	Cluster observations of hot flow anomalies with large flow deflections: 2. Bow shock geometry at HFA edges. Journal of Geophysical Research: Space Physics, 2013, 118, 418-433.	2.4	19
79	Cases and statistical study on Hot Flow Anomalies with Cluster spacecraft data. Science China Technological Sciences, 2012, 55, 1402-1418.	4.0	12
80	The process of electron acceleration during collisionless magnetic reconnection. Physics of Plasmas, 2006, 13, 012309.	1.9	205