Yi-Hsin Liu

List of Publications by Year
in descending order

55	2,109	304743	233421
papers	citations	22 h-index	45 g-index

56	56	56	1708
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-scale evolution of Kelvinâ€“Helmholtz waves at the Earth's magnetopause during southward IMF periods. Physics of Plasmas, 2022, 29, .	1.9	8
2	Multi-scale observations of the magnetopause Kelvinâ€“Helmholtz waves during southward IMF. Physics of Plasmas, 2022, 29, .	1.9	12
3	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
4	First-principles theory of the rate of magnetic reconnection in magnetospheric and solar plasmas. Communications Physics, 2022, 5, .	5.3	20
5	A New Look at the Electron Diffusion Region in Asymmetric Magnetic Reconnection. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028456.	2.4	4
6	Identification of Active Magnetic Reconnection Using Magnetic Flux Transport in Plasma Turbulence. Astrophysical Journal Letters, 2021, 909, L28.	8.3	6
7	The Effect of Thermal Pressure on Collisionless Magnetic Reconnection Rate. Astrophysical Journal, 2021, 912, 152.	4.5	9
8	The acceleration of charged particles and formation of power-law energy spectra in nonrelativistic magnetic reconnection. Physics of Plasmas, 2021, 28, .	1.9	22
9	Fast magnetic reconnection induced by resistivity gradients in 2D magnetohydrodynamics. Physics of Plasmas, 2021, 28, .	1.9	4
10	The relation between the energy conversion rate and reconnection rate in Petschek-type reconnectionâ€”Implications for solar flares. Physics of Plasmas, 2021, 28, 082103.	1.9	4
11	Magnetic Energy Release, Plasma Dynamics, and Particle Acceleration in Relativistic Turbulent Magnetic Reconnection. Astrophysical Journal, 2021, 919, 111.	4.5	34
12	Spatial evolution of magnetic reconnection diffusion region structures with distance from the X-line. Physics of Plasmas, 2021, 28, .	1.9	3
13	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
14	Recent progress on particle acceleration and reconnection physics during magnetic reconnection in the magnetically-dominated relativistic regime. Physics of Plasmas, 2020, 27, .	1.9	48
15	Scaling of Magnetic Reconnection With a Limited Xâ€Line Extent. Geophysical Research Letters, 2020, 47, e2020GL088147.	4.0	10
16	Decay of Kelvinâ€Helmholtz Vortices at the Earth's Magnetopause Under Pure Southward IMF Conditions. Geophysical Research Letters, 2020, 47, e2020GL087574.	4.0	10
17	The Critical Role of Collisionless Plasma Energization on the Structure of Relativistic Magnetic Reconnection. Astrophysical Journal Letters, 2020, 892, L13.	8.3	13
18	Threeâ€Dimensional Xâ€line Spreading in Asymmetric Magnetic Reconnection. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027094.	2.4	15

#	Article	IF	Citations
19	An Event Study of Simultaneous Earthward and Tailward Reconnection Exhaust Flows in the Earth's Midtail. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027406.	2.4	10
20	Radiation and Polarization Signatures from Magnetic Reconnection in Relativistic Jets. I. A Systematic Study. Astrophysical Journal, 2020, 901, 149.	4.5	20
21	Determining the Dominant Acceleration Mechanism during Relativistic Magnetic Reconnection in Large-scale Systems. Astrophysical Journal Letters, 2019, 879, L23.	8.3	54
22	Collisionless energy transfer in kinetic turbulence: fieldâ€“particle correlations in FourierÂspace. Journal of Plasma Physics, 2019, 85, .	2.1	19
23	ThreeâEDimensional Magnetic Reconnection With a Spatially Confined Xâ€Line Extent: Implications for Dipolarizing Flux Bundles and the DawnâEDusk Asymmetry. Journal of Geophysical Research: Space Physics, 2019, 124, 2819-2830.	2.4	34
24	The physical foundation of the reconnection electric field. Physics of Plasmas, 2018, 25, .	1.9	20
25	Violation of Field Line Conservation and Associated Spatial Scales in Particleâ€inâ€Cell Simulations and MMS Data. Journal of Geophysical Research: Space Physics, 2018, 123, 1853-1884.	2.4	0
26	A Case Study of Connection Between Ground Magnetic Field Perturbations and Tail Current Sheet Bursty Flows at XÂ=Âˆ'60ÂR_E. Journal of Geophysical Research: Space Physics, 2018, 123, 1822-1833.	2.4	11
27	On the Collisionless Asymmetric Magnetic Reconnection Rate. Geophysical Research Letters, 2018, 45, 3311-3318.	4.0	15
28	Orientation and Stability of Asymmetric Magnetic Reconnection X Line. Journal of Geophysical Research: Space Physics, 2018, 123, 4908-4920.	2.4	16
29	On the role of separatrix instabilities in heating the reconnection outflow region. Physics of Plasmas, 2018, 25, .	1.9	27
30	Energy Conversion and Partition in the Asymmetric Reconnection Diffusion Region. Journal of Geophysical Research: Space Physics, 2018, 123, 8185-8205.	2.4	17
31	Measurement of the Magnetic Reconnection Rate in the Earth's Magnetotail. Journal of Geophysical Research: Space Physics, 2018, 123, 9150-9168.	2.4	50
32	Remote Sensing of the Reconnection Electric Field From In Situ Multipoint Observations of the Separatrix Boundary. Geophysical Research Letters, 2018, 45, 3829-3837.	4.0	10
33	Strongly localized magnetic reconnection by the super-AlfvÃ©nic shear flow. Physics of Plasmas, 2018, 25, .	1.9	13
34	Drift turbulence, particle transport, and anomalous dissipation at the reconnecting magnetopause. Physics of Plasmas, 2018, 25, .	1.9	45
35	Why does Steady-State Magnetic Reconnection have a Maximum Local Rate of Order 0.1?. Physical Review Letters, 2017, 118, 085101.	7.8	112
36	Ultralow Frequency Waves Deep Inside the Inner Magnetosphere Driven by Dipolarizing Flux Bundles. Journal of Geophysical Research: Space Physics, 2017, 122, 10,112.	2.4	16

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37	Exact Vlasovâ€Maxwell equilibria for asymmetric current sheets. Geophysical Research Letters, 2017, 44, 8685-8695.	4.0	19
38	A review of the 0.1 reconnection rate problem. Journal of Plasma Physics, 2017, 83, .	2.1	93
39	Population Mixing in Asymmetric Magnetic Reconnection with a Guide Field. Physical Review Letters, 2017, 118, 145101.	7.8	11
40	Suppression of collisionless magnetic reconnection in asymmetric current sheets. Physics of Plasmas, 2016, 23, .	1.9	18
41	EFFICIENT PRODUCTION OF HIGH-ENERGY NONTHERMAL PARTICLES DURING MAGNETIC RECONNECTION IN A MAGNETICALLY DOMINATED IONâ€“ELECTRON PLASMA. Astrophysical Journal Letters, 2016, 818, L9.	8.3	113
42	Particle acceleration during magnetic reconnection in a low-beta pair plasma. Physics of Plasmas, 2016, 23, .	1.9	28
43	On the electron diffusion region in asymmetric reconnection with a guide magnetic field. Geophysical Research Letters, 2016, 43, 2359-2364.	4.0	50
44	Reconnection and interchange instability in the near magnetotail. Earth, Planets and Space, 2015, 67, .	2.5	10
45	Orientation of X lines in asymmetric magnetic reconnectionâ€”Mass ratio dependency. Journal of Geophysical Research: Space Physics, 2015, 120, 7331-7341.	2.4	19
46	PARTICLE ACCELERATION AND PLASMA DYNAMICS DURING MAGNETIC RECONNECTION IN THE MAGNETICALLY DOMINATED REGIME. Astrophysical Journal, 2015, 806, 167.	4.5	238
47	Scaling of Magnetic Reconnection in Relativistic Collisionless Pair Plasmas. Physical Review Letters, 2015, 114, 095002.	7.8	69
48	Do dispersive waves play a role in collisionless magnetic reconnection?. Physics of Plasmas, 2014, 21, 022113.	1.9	45
49	Formation of Hard Power Laws in the Energetic Particle Spectra Resulting from Relativistic Magnetic Reconnection. Physical Review Letters, 2014, 113, 155005.	7.8	333
50	Onset of reconnection in the near magnetotail: PIC simulations. Journal of Geophysical Research: Space Physics, 2014, 119, 9773-9789.	2.4	69
51	Bifurcated Structure of the Electron Diffusion Region in Three-Dimensional Magnetic Reconnection. Physical Review Letters, 2013, 110, 265004.	7.8	82
52	Recent Evolution in the Theory of Magnetic Reconnection and Its Connection with Turbulence. Space Science Reviews, 2013, 178, 307-323.	8.1	66
53	The structure of the magnetic reconnection exhaust boundary. Physics of Plasmas, 2012, 19, .	1.9	67
54	The effects of strong temperature anisotropy on the kinetic structure of collisionless slow shocks and reconnection exhausts. II. Theory. Physics of Plasmas, 2011, 18, .	1.9	23

#	Article	IF	Citations
55	The effects of strong temperature anisotropy on the kinetic structure of collisionless slow shocks and reconnection exhausts. I. Particle-in-cell simulations. Physics of Plasmas, 2011, 18, .	1.9	25