

# Mostafa El Alaoui

## List of Publications by Year in descending order

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65  
papers

1,647  
citations

304368

22  
h-index

301761

39  
g-index

65  
all docs

65  
docs citations

65  
times ranked

958  
citing authors

#	ARTICLE	IF	CITATIONS
1	THEMIS observation of multiple dipolarization fronts and associated wave characteristics in the near-Earth magnetotail. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	178
2	Observations and simulations of non-local acceleration of electrons in magnetotail magnetic reconnection events. <i>Nature Physics</i> , 2011, 7, 360-365.	6.5	165
3	Wave and particle characteristics of earthward electron injections associated with dipolarization fronts. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	118
4	Observations of an Electron Diffusion Region in Symmetric Reconnection with Weak Guide Field. <i>Astrophysical Journal</i> , 2019, 870, 34.	1.6	79
5	Coalescence of Macroscopic Flux Ropes at the Subsolar Magnetopause: Magnetospheric Multiscale Observations. <i>Physical Review Letters</i> , 2017, 119, 055101.	2.9	72
6	Cluster observations of kinetic structures and electron acceleration within a dynamic plasma bubble. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 674-684.	0.8	66
7	Current disruption during November 24, 1996, substorm. <i>Journal of Geophysical Research</i> , 2001, 106, 6229-6245.	3.3	56
8	On the origin of the crescent-shaped distributions observed by MMS at the magnetopause. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 2024-2039.	0.8	43
9	Adiabatic acceleration of suprathermal electrons associated with dipolarization fronts. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	42
10	Substorm evolution as revealed by THEMIS satellites and a global MHD simulation. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	41
11	Ion sources and acceleration mechanisms inferred from local distribution functions. <i>Geophysical Research Letters</i> , 1997, 24, 955-958.	1.5	38
12	A new convection state at substorm onset: Results from an MHD study. <i>Geophysical Research Letters</i> , 2002, 29, 26-1-26-4.	1.5	37
13	Suprathermal Electron Acceleration in a Reconnecting Magnetotail: Large-Scale Kinetic Simulation. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8087-8108.	0.8	34
14	Localized reconnection and substorm onset on Dec. 22, 1996. <i>Geophysical Research Letters</i> , 1999, 26, 3545-3548.	1.5	33
15	Dipolarization and turbulence in the plasma sheet during a substorm: THEMIS observations and global MHD simulations. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7752-7761.	0.8	32
16	Observation of high-frequency electrostatic waves in the vicinity of the reconnection ion diffusion region by the spacecraft of the Magnetospheric Multiscale (MMS) mission. <i>Geophysical Research Letters</i> , 2016, 43, 4808-4815.	1.5	32
17	Magnetospheric Multiscale Observations of an Ion Diffusion Region With Large Guide Field at the Magnetopause: Current System, Electron Heating, and Plasma Waves. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 1834-1852.	0.8	32
18	Multiscale study of electron energization during unsteady reconnection events. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4784-4799.	0.8	29

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19	Global magnetohydrodynamic simulation of reconnection and turbulence in the plasma sheet. Journal of Geophysical Research, 2010, 115, .	3.3	25
20	A stochastic sea: The source of plasma sheet boundary layer ion structures observed by Cluster. Journal of Geophysical Research, 2005, 110, .	3.3	24
21	Dynamics of ionospheric O <sup>+</sup> ions in the magnetosphere during the 24 <sup>th</sup> -25 September 1998 magnetic storm. Journal of Geophysical Research, 2006, 111, .	3.3	23
22	Oxygen acceleration in magnetotail reconnection. Journal of Geophysical Research: Space Physics, 2017, 122, 618-639.	0.8	23
23	Electron energization and transport in the magnetotail during substorms. Journal of Geophysical Research: Space Physics, 2014, 119, 1060-1079.	0.8	21
24	Magnetospheric convection during prolonged intervals with southward interplanetary magnetic field. Journal of Geophysical Research, 2006, 111, .	3.3	20
25	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.	0.6	19
26	Source distributions of substorm ions observed in the near-Earth magnetotail. Geophysical Research Letters, 1999, 26, 955-958.	1.5	18
27	Bifurcated current sheets: Statistics from Cluster magnetometer measurements. Journal of Geophysical Research, 2006, 111, .	3.3	18
28	The ion population of the magnetotail during the 17 April 2002 magnetic storm: Large-scale kinetic simulations and IMAGE/HENA observations. Journal of Geophysical Research, 2011, 116, .	3.3	18
29	The storm <sup>time</sup> access of solar wind ions to the nightside ring current and plasma sheet. Journal of Geophysical Research, 2008, 113, .	3.3	17
30	A simulation study of particle energization observed by THEMIS spacecraft during a substorm. Journal of Geophysical Research, 2009, 114, .	3.3	17
31	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
32	Ion energization and transport associated with magnetic dipolarizations. Geophysical Research Letters, 2014, 41, 5717-5726.	1.5	15
33	A multiscale study of ion heating in Earth's magnetotail. Geophysical Research Letters, 2016, 43, 515-524.	1.5	15
34	Configuration of the Earth's Magnetotail Current Sheet. Geophysical Research Letters, 2021, 48, e2020GL092153.	1.5	14
35	Multiscale MHD <sup>Kinetic</sup> PIC Study of Energy Fluxes Caused by Reconnection. Journal of Geophysical Research: Space Physics, 2020, 125, no.	0.8	13
36	Anisotropy of the Taylor scale and the correlation scale in plasma sheet magnetic field fluctuations as a function of auroral electrojet activity. Journal of Geophysical Research, 2010, 115, .	3.3	12

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37	Forces driving fast flow channels, dipolarizations, and turbulence in the magnetotail. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 11,063.	0.8	12
38	Identifying the electron diffusion region in a realistic simulation of Earth's magnetotail. <i>Geophysical Research Letters</i> , 2016, 43, 6005-6011.	1.5	12
39	On the importance of accurate solar wind measurements for studying magnetospheric dynamics. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	11
40	Observations and simulations of a highly structured plasma sheet during northward IMF. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	11
41	Turbulent Energization of Electron Power Law Tails during Magnetic Reconnection. <i>Physical Review Letters</i> , 2020, 125, 225101.	2.9	11
42	Propagation of Pi2 pulsations through the braking region in global MHD simulations. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 10,574.	0.8	10
43	Low Mach number bow shock locations during a magnetic cloud event: Observations and magnetohydrodynamic simulations. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	9
44	Modeling the entry and trapping of solar energetic particles in the magnetosphere during the November 24-25, 2001 storm. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	9
45	Magnetotail Structure and its Internal Particle Dynamics During Northward IMF. <i>Geophysical Monograph Series</i> , 0, , 77-95.	0.1	9
46	Embedding particle-in-cell simulations in global magnetohydrodynamic simulations of the magnetosphere. <i>Journal of Plasma Physics</i> , 2019, 85, .	0.7	9
47	Simulated stormtime ring-current magnetic field produced by ions and electrons. <i>Geophysical Monograph Series</i> , 2005, , 237-250.	0.1	8
48	Direct auroral precipitation from the magnetotail during substorms. <i>Geophysical Research Letters</i> , 2013, 40, 3787-3792.	1.5	8
49	Modeling substorm ion injection observed by the THEMIS and LANL spacecraft in the near-Earth magnetotail. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	7
50	Determination of Particle Sources for a Geotail Distribution Function Observed on May 23, 1995. <i>Geophysical Monograph Series</i> , 2013, , 297-312.	0.1	7
51	The Relation of N <sup>+</sup> Auroral Streamers to Auroral Expansion. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027063.	0.8	7
52	Modeling Extreme Compression of the Magnetosphere: Results from a Global MHD Simulation of the May 4, 1998 Event. <i>Geophysical Monograph Series</i> , 2013, , 241-248.	0.1	6
53	Generation of Pi2 pulsations by intermittent earthward propagating dipolarization fronts: An MHD case study. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6364-6377.	0.8	5
54	An MHD simulation study of the dynamics of the 8-9 March 2008 CIR-driven geomagnetic storm. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 2990-3001.	0.8	5

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55	Contrasting electron acceleration processes during two substorms. Journal of Geophysical Research: Space Physics, 2014, 119, 5382-5400.	0.8	5
56	Mission Oriented Support and Theory (MOST) for MMSâ€”the Goddard Space Flight Center/University of California Los Angeles Interdisciplinary Science Program. Space Science Reviews, 2016, 199, 689-719.	3.7	5
57	Structure and Dynamics of Threeâ€”Dimensional Magnetotail Reconnection. Journal of Geophysical Research: Space Physics, 2018, 123, 8241-8260.	0.8	5
58	Characteristics of Reconnection Sites and Fast Flow Channels in an MHD Simulation. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027701.	0.8	5
59	Modeling Magnetotail Ion Distributions with Global Magnetohydrodynamic and Ion Trajectory Calculations. Geophysical Monograph Series, 2013, , 291-296.	0.1	4
60	Magnetohydrodynamic Turbulence in the Earthâ€™s Magnetotail From Observations and Global MHD Simulations. Frontiers in Astronomy and Space Sciences, 2021, 8, .	1.1	4
61	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, .	0.8	4
62	Ion dynamics associated with substorm dipolarization fronts. Science China Earth Sciences, 2014, 57, 2543-2551.	2.3	3
63	Loading experimental velocity distributions into particle-in-cell simulations of space and fusion plasmas. Journal of Plasma Physics, 2006, 72, 949.	0.7	2
64	The effect of solar wind structures on the storm-time magnetosphere. Proceedings of the International Astronomical Union, 2006, 2, 283.	0.0	0
65	The acceleration of electrons in the magnetotail and their auroral signatures. , 2011, , .		0