

Mikhail I Sitnov

List of Publications by Year in descending order

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90
papers

5,163
citations

81900

39
h-index

85541

71
g-index

93
all docs

93
docs citations

93
times ranked

2150
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling the dynamics of the inner magnetosphere during strong geomagnetic storms. Journal of Geophysical Research, 2005, 110, .	3.3	895
2	THEMIS observations of an earthward-propagating dipolarization front. Geophysical Research Letters, 2009, 36, .	4.0	523
3	Dipolarization fronts as a signature of transient reconnection in the magnetotail. Journal of Geophysical Research, 2009, 114, .	3.3	272
4	Dipolarization fronts as a consequence of transient reconnection: In situ evidence. Geophysical Research Letters, 2013, 40, 6023-6027.	4.0	168
5	Magnetospheric configurations from a high-resolution data-based magnetic field model. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	157
6	Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE). Space Science Reviews, 2013, 179, 263-308.	8.1	155
7	Thin current sheet embedded within a thicker plasma sheet: Self-consistent kinetic theory. Journal of Geophysical Research, 2000, 105, 13029-13043.	3.3	131
8	Observations of multiple X-line structure in the Earth's magnetotail current sheet: A Cluster case study. Geophysical Research Letters, 2005, 32, .	4.0	108
9	Thin and superthin ion current sheets. Quasi-adiabatic and nonadiabatic models. Nonlinear Processes in Geophysics, 2000, 7, 127-139.	1.3	105
10	Phase transition-like behavior of the magnetosphere during substorms. Journal of Geophysical Research, 2000, 105, 12955-12974.	3.3	90
11	A model of the bifurcated current sheet. Geophysical Research Letters, 2003, 30, .	4.0	87
12	Spontaneous formation of dipolarization fronts and reconnection onset in the magnetotail. Geophysical Research Letters, 2013, 40, 22-27.	4.0	87
13	Structure and dynamics of a new class of thin current sheets. Journal of Geophysical Research, 2006, 111, .	3.3	85
14	Tearing stability of a multiscale magnetotail current sheet. Geophysical Research Letters, 2010, 37, .	4.0	82
15	Radial transport of radiation belt electrons due to stormtime Pc5 waves. Annales Geophysicae, 2009, 27, 2173-2181.	1.6	80
16	Dynamical data-based modeling of the storm-time geomagnetic field with enhanced spatial resolution. Journal of Geophysical Research, 2008, 113, .	3.3	77
17	Modeling substorm dynamics of the magnetosphere: From self-organization and self-organized criticality to nonequilibrium phase transitions. Physical Review E, 2001, 65, 016116.	2.1	76
18	Explosive Magnetotail Activity. Space Science Reviews, 2019, 215, 31.	8.1	75

#	ARTICLE	IF	CITATIONS
19	Dipolarization fronts in the magnetotail plasma sheet. <i>Planetary and Space Science</i> , 2011, 59, 517-525.	1.7	73
20	Onset of collisionless magnetic reconnection in two-dimensional current sheets and formation of dipolarization fronts. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	71
21	Generalized lower-hybrid drift instabilities in current-sheet equilibrium. <i>Physics of Plasmas</i> , 2002, 9, 1526-1538.	1.9	69
22	Magnetic reconnection, buoyancy, and flapping motions in magnetotail explosions. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 7151-7168.	2.4	64
23	Thin current sheet in the substorm late growth phase: Modeling of THEMIS observations. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	60
24	Ballooningâ€”Interchange Instability in the Nearâ€”Earth Plasma Sheet and Auroral Beads: Global Magnetospheric Modeling at the Limit of the MHD Approximation. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088227.	4.0	59
25	A simple MHD model for the formation of multiple dipolarization fronts. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	52
26	The role of drift orbit bifurcations in energization and loss of electrons in the outer radiation belt. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	51
27	Dynamics of Radiation Belt Particles. <i>Space Science Reviews</i> , 2013, 179, 545-578.	8.1	51
28	Self-consistent structure of a thin anisotropic current sheet. <i>Journal of Geophysical Research</i> , 1997, 102, 22099-22106.	3.3	49
29	Ion Trapping and Acceleration at Dipolarization Fronts: Highâ€”Resolution MHD and Testâ€”Particle Simulations. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 5580-5589.	2.4	48
30	Reconnection onset in the tail of Earth's magnetosphere. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 20-1.	3.3	47
31	Global storm time depletion of the outer electron belt. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 2543-2556.	2.4	45
32	Data-derived forecasting model for relativistic electron intensity at geosynchronous orbit. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	44
33	Rotationally driven â€”zebra stripesâ€” in Earthâ€”s inner radiation belt. <i>Nature</i> , 2014, 507, 338-340.	27.8	42
34	Kinetic Dissipation Around a Dipolarization Front. <i>Geophysical Research Letters</i> , 2018, 45, 4639-4647.	4.0	42
35	Global and multi-scale features of solar wind-magnetosphere coupling: From modeling to forecasting. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	41
36	Rapid acceleration of protons upstream of earthward propagating dipolarization fronts. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 4952-4962.	2.4	41

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37	Ion acceleration at dipolarization fronts in the inner magnetosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 3040-3054.	2.4	41
38	Effects of electrojet turbulence on a magnetosphere-ionosphere simulation of a geomagnetic storm. Journal of Geophysical Research: Space Physics, 2017, 122, 5008-5027.	2.4	41
39	Global Empirical Picture of Magnetospheric Substorms Inferred From Multimission Magnetometer Data. Journal of Geophysical Research: Space Physics, 2019, 124, 1085-1110.	2.4	41
40	Quasi-neutral sheet tearing instability induced by electron preferential acceleration from stochasticity. Journal of Geophysical Research, 1997, 102, 163-173.	3.3	40
41	Radial transport in the outer radiation belt due to global magnetospheric compressions. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 1714-1726.	1.6	40
42	Empirical modeling of the storm time innermost magnetosphere using Van Allen Probes and THEMIS data: Eastward and banana currents. Journal of Geophysical Research: Space Physics, 2016, 121, 157-170.	2.4	40
43	Reconnection onset in the magnetotail: Particle simulations with open boundary conditions. Geophysical Research Letters, 2007, 34, .	4.0	38
44	Empirical modeling of a CIR-driven magnetic storm. Journal of Geophysical Research, 2010, 115, .	3.3	38
45	A model of the bifurcated current sheet: 2. Flapping motions. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	36
46	Generalized magnetotail equilibria: Effects of the dipole field, thin current sheets, and magnetic flux accumulation. Journal of Geophysical Research: Space Physics, 2016, 121, 7664-7683.	2.4	33
47	Substorms as nonequilibrium transitions of the magnetosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 1399-1406.	1.6	30
48	Does a Local B _z Minimum Appear in the Tail Current Sheet During a Substorm Growth Phase?. Geophysical Research Letters, 2018, 45, 2566-2573.	4.0	30
49	Empirical reconstruction of storm time steady magnetospheric convection events. Journal of Geophysical Research: Space Physics, 2013, 118, 6434-6456.	2.4	29
50	Signatures of Nonideal Plasma Evolution During Substorms Obtained by Mining Multimission Magnetometer Data. Journal of Geophysical Research: Space Physics, 2019, 124, 8427-8456.	2.4	27
51	Enhanced radial transport and energization of radiation belt electrons due to drift orbit bifurcations. Journal of Geophysical Research: Space Physics, 2014, 119, 163-170.	2.4	24
52	Evolution of generalized two-dimensional magnetotail equilibria in ideal and resistive MHD. Journal of Geophysical Research: Space Physics, 2015, 120, 1993-2014.	2.4	22
53	Distinctive features of internally driven magnetotail reconnection. Geophysical Research Letters, 2017, 44, 3028-3037.	4.0	21
54	Combining global and multi-scale features in a description of the solar wind-magnetosphere coupling. Annales Geophysicae, 2003, 21, 1913-1929.	1.6	21

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55	Global and multiscale aspects of magnetospheric dynamics in local-linear filters. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 15-1.	3.3	20
56	Ion distributions near the reconnection sites: Comparison between simulations and THEMIS observations. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	20
57	Data Mining Reconstruction of Magnetotail Reconnection and Implications for Its First-Principle Modeling. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	19
58	Role of the temperature ratio in the linear stability of the quasi-neutral sheet tearing mode. <i>Geophysical Research Letters</i> , 1998, 25, 269-272.	4.0	18
59	Phase transition-like behavior of magnetospheric substorms: Global MHD simulation results. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	18
60	Stability of magnetotail equilibria with a tailward $\langle B_z \rangle$ gradient. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 9411-9426.	2.4	18
61	MHD Stability of Magnetotail Configurations With a $\langle B_z \rangle$ Hump. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 3477-3492.	2.4	18
62	Cross-field current instability as a catalyst of the explosive reconnection in the geomagnetotail. <i>Journal of Geophysical Research</i> , 1999, 104, 6941-6951.	3.3	17
63	On the formation of a plasma bubble. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	17
64	Current-driven instabilities in forced current sheets. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	15
65	Forecasting of global data binning parameters for high-resolution empirical geomagnetic field models. <i>Space Weather</i> , 2012, 10, .	3.7	12
66	Atypical current sheets and plasma bubbles: A self-consistent kinetic model. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	11
67	Empirical Modeling of Extreme Events: Storm-Time Geomagnetic Field, Electric Current, and Pressure Distributions. , 2018, , 259-279.		11
68	Multiscale Nature of the Magnetotail Reconnection Onset. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093065.	4.0	11
69	Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE). , 2013, , 263-308.		11
70	Reconstruction of Extreme Geomagnetic Storms: Breaking the Data Paucity Curse. <i>Space Weather</i> , 2020, 18, e2020SW002561.	3.7	10
71	Characteristics of Energetic Electrons Near Active Magnetotail Reconnection Sites: Tracers of a Complex Magnetic Topology and Evidence of Localized Acceleration. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090089.	4.0	10
72	Reconstructing Substorms via Historical Data Mining: Is It Really Feasible?. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029604.	2.4	9

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73	Storm Time Plasma Pressure Inferred From Multimission Measurements and Its Validation Using Van Allen Probes Particle Data. <i>Space Weather</i> , 2020, 18, e2020SW002583.	3.7	9
74	Observations of Short-Period Ion-Scale Current Sheet Flapping. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029152.	2.4	8
75	Dynamics of Radiation Belt Particles. , 2012, , 545-578.		8
76	Nonlinear structures, stochasticity and intermittency in the dynamics of charged particles near a magnetic field reversal. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1989, 140, 136-140.	2.1	7
77	Selfsimilarity and fractional kinetics of solar wind-magnetosphere coupling. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 373, 11-20.	2.6	7
78	Multiscale behavior and fractional kinetics from the data of solar wind-magnetosphere coupling. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2008, 13, 314-330.	3.3	7
79	Concurrent Empirical Magnetic Reconstruction of Storm and Substorm Spatial Scales Using Data Mining and Virtual Spacecraft. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	7
80	“Snowplow” injection front effects. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6478-6488.	2.4	6
81	Reconstruction of Magnetospheric Storm-Time Dynamics Using Cylindrical Basis Functions and Multi-Mission Data Mining. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028390.	2.4	6
82	On the mechanism of tearing instability in a quasineutral sheet associated with the phenomenon of deterministic chaos in strongly curved magnetic fields. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 177, 235-240.	2.1	5
83	Global and Multiscale Phenomena of the Magnetosphere. , 2005, , 117-143.		5
84	Plasma wave collisionless damping and charged particle acceleration induced by deterministic chaos in a strongly curved magnetic field. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991, 159, 170-173.	2.1	4
85	Self-consistent model of 1D current sheet: The role of drift, magnetization and diamagnetic currents. <i>Geophysical Monograph Series</i> , 2000, , 313-322.	0.1	3
86	Modeling the magnetosphere using time series data. <i>Geophysical Monograph Series</i> , 2003, , 231-241.	0.1	3
87	Bernstein mode formation in weak magnetic field. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1984, 100, 141-143.	2.1	0
88	Correction to “Onset of collisionless magnetic reconnection in two-dimensional current sheets and formation of dipolarization fronts”. <i>Journal of Geophysical Research</i> , 2012, 117, n/a-n/a.	3.3	0
89	Particle-In-Cell Simulations of Magnetotail Dipolarizations Guided by Local Plasma Observations and Magnetometer Data Mining. , 2021, , .		0
90	ROLES OF CHAOS, SELF-ORGANIZED CRITICALITY AND PHASE TRANSITIONS IN MAGNETOSPHERIC PHYSICS. , 2005, , 195-215.		0