

# 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	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
2	Reconstruction of Magnetospheric Stormâ€Time Dynamics Using Cylindrical Basis Functions and Multiâ€Mission Data Mining. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028390.	2.4	6
3	Data Mining Reconstruction of Magnetotail Reconnection and Implications for Its First-Principle Modeling. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	19
4	Multiscale Nature of the Magnetotail Reconnection Onset. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093065.	4.0	11
5	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
6	Observations of Shortâ€Period Ionâ€Scale Current Sheet Flapping. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029152.	2.4	8
7	Particle-In-Cell Simulations of Magnetotail Dipolarizations Guided by Local Plasma Observations and Magnetometer Data Mining. , 2021, , .		0
8	Reconstructing Substorms via Historical Data Mining: Is It Really Feasible?. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029604.	2.4	9
9	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
10	Reconstruction of Extreme Geomagnetic Storms: Breaking the Data Paucity Curse. <i>Space Weather</i> , 2020, 18, e2020SW002561.	3.7	10
11	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
12	Signatures of Nonideal Plasma Evolution During Substorms Obtained by Mining Multimission Magnetometer Data. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 8427-8456.	2.4	27
13	Global Empirical Picture of Magnetospheric Substorms Inferred From Multimission Magnetometer Data. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 1085-1110.	2.4	41
14	Explosive Magnetotail Activity. <i>Space Science Reviews</i> , 2019, 215, 31.	8.1	75
15	Empirical Modeling of Extreme Events: Storm-Time Geomagnetic Field, Electric Current, and Pressure Distributions. , 2018, , 259-279.		11
16	Does a Local Bâ€Minimum Appear in the Tail Current Sheet During a Substorm Growth Phase?. <i>Geophysical Research Letters</i> , 2018, 45, 2566-2573.	4.0	30
17	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
18	Kinetic Dissipation Around a Dipolarization Front. <i>Geophysical Research Letters</i> , 2018, 45, 4639-4647.	4.0	42

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19	MHD Stability of Magnetotail Configurations With a $B_z$ Hump. Journal of Geophysical Research: Space Physics, 2018, 123, 3477-3492.	2.4	18
20	Ion acceleration at dipolarization fronts in the inner magnetosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 3040-3054.	2.4	41
21	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
22	Distinctive features of internally driven magnetotail reconnection. Geophysical Research Letters, 2017, 44, 3028-3037.	4.0	21
23	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
24	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
25	Stability of magnetotail equilibria with a tailward $B_z$ gradient. Journal of Geophysical Research: Space Physics, 2016, 121, 9411-9426.	2.4	18
26	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
27	Global storm time depletion of the outer electron belt. Journal of Geophysical Research: Space Physics, 2015, 120, 2543-2556.	2.4	45
28	Magnetic reconnection, buoyancy, and flapping motions in magnetotail explosions. Journal of Geophysical Research: Space Physics, 2014, 119, 7151-7168.	2.4	64
29	Rotationally driven "zebra stripes" in Earth's inner radiation belt. Nature, 2014, 507, 338-340.	27.8	42
30	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
31	Dynamics of Radiation Belt Particles. Space Science Reviews, 2013, 179, 545-578.	8.1	51
32	Rapid acceleration of protons upstream of earthward propagating dipolarization fronts. Journal of Geophysical Research: Space Physics, 2013, 118, 4952-4962.	2.4	41
33	Empirical reconstruction of storm time steady magnetospheric convection events. Journal of Geophysical Research: Space Physics, 2013, 118, 6434-6456.	2.4	29
34	Spontaneous formation of dipolarization fronts and reconnection onset in the magnetotail. Geophysical Research Letters, 2013, 40, 22-27.	4.0	87
35	Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE). Space Science Reviews, 2013, 179, 263-308.	8.1	155
36	"Snowplow" injection front effects. Journal of Geophysical Research: Space Physics, 2013, 118, 6478-6488.	2.4	6

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37	Dipolarization fronts as a consequence of transient reconnection: In situ evidence. <i>Geophysical Research Letters</i> , 2013, 40, 6023-6027.	4.0	168
38	Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE). , 2013, , 263-308.		11
39	Forecasting of global dataâ€binning parameters for highâ€eresolution empirical geomagnetic field models. <i>Space Weather</i> , 2012, 10, .	3.7	12
40	Correction to â€œOnset of collisionless magnetic reconnection in two-dimensional current sheets and formation of dipolarization frontsâ€ Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	0
41	Dynamics of Radiation Belt Particles. , 2012, , 545-578.		8
42	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
43	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
44	Dipolarization fronts in the magnetotail plasma sheet. <i>Planetary and Space Science</i> , 2011, 59, 517-525.	1.7	73
45	Empirical modeling of a CIRâ€driven magnetic storm. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	38
46	Tearing stability of a multiscale magnetotail current sheet. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	82
47	A simple MHD model for the formation of multiple dipolarization fronts. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	52
48	THEMIS observations of an earthwardâ€propagating dipolarization front. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	523
49	Ion distributions near the reconnection sites: Comparison between simulations and THEMIS observations. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	20
50	Thin current sheet in the substorm late growth phase: Modeling of THEMIS observations. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	60
51	Dipolarization fronts as a signature of transient reconnection in the magnetotail. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	272
52	Radial transport of radiation belt electrons due to stormtime Pc5 waves. <i>Annales Geophysicae</i> , 2009, 27, 2173-2181.	1.6	80
53	Radial transport in the outer radiation belt due to global magnetospheric compressions. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2008, 70, 1714-1726.	1.6	40
54	Multiscale behavior and fractional kinetics from the data of solar windâ€magnetosphere coupling. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2008, 13, 314-330.	3.3	7

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55	Dynamical data-based modeling of the storm-time geomagnetic field with enhanced spatial resolution. Journal of Geophysical Research, 2008, 113, .	3.3	77
56	Reconnection onset in the magnetotail: Particle simulations with open boundary conditions. Geophysical Research Letters, 2007, 34, .	4.0	38
57	Atypical current sheets and plasma bubbles: A self-consistent kinetic model. Geophysical Research Letters, 2007, 34, .	4.0	11
58	Magnetospheric configurations from a high-resolution data-based magnetic field model. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	157
59	Selfsimilarity and fractional kinetics of solar wind-magnetosphere coupling. Physica A: Statistical Mechanics and Its Applications, 2007, 373, 11-20.	2.6	7
60	Structure and dynamics of a new class of thin current sheets. Journal of Geophysical Research, 2006, 111, .	3.3	85
61	Modeling the dynamics of the inner magnetosphere during strong geomagnetic storms. Journal of Geophysical Research, 2005, 110, .	3.3	895
62	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
63	On the formation of a plasma bubble. Geophysical Research Letters, 2005, 32, .	4.0	17
64	Global and Multiscale Phenomena of the Magnetosphere. , 2005, , 117-143.		5
65	ROLES OF CHAOS, SELF-ORGANIZED CRITICALITY AND PHASE TRANSITIONS IN MAGNETOSPHERIC PHYSICS. , 2005, , 195-215.		0
66	Global and multi-scale features of solar wind-magnetosphere coupling: From modeling to forecasting. Geophysical Research Letters, 2004, 31, .	4.0	41
67	Current-driven instabilities in forced current sheets. Journal of Geophysical Research, 2004, 109, .	3.3	15
68	A model of the bifurcated current sheet: 2. Flapping motions. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	36
69	Data-derived forecasting model for relativistic electron intensity at geosynchronous orbit. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	44
70	Phase transition-like behavior of magnetospheric substorms: Global MHD simulation results. Journal of Geophysical Research, 2003, 108, .	3.3	18
71	A model of the bifurcated current sheet. Geophysical Research Letters, 2003, 30, .	4.0	87
72	Modeling the magnetosphere using time series data. Geophysical Monograph Series, 2003, , 231-241.	0.1	3

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73	Combining global and multi-scale features in a description of the solar wind-magnetosphere coupling. <i>Annales Geophysicae</i> , 2003, 21, 1913-1929.	1.6	21
74	Reconnection onset in the tail of Earth's magnetosphere. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 20-1.	3.3	47
75	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
76	Generalized lower-hybrid drift instabilities in current-sheet equilibrium. <i>Physics of Plasmas</i> , 2002, 9, 1526-1538.	1.9	69
77	Substorms as nonequilibrium transitions of the magnetosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2001, 63, 1399-1406.	1.6	30
78	Modeling substorm dynamics of the magnetosphere: From self-organization and self-organized criticality to nonequilibrium phase transitions. <i>Physical Review E</i> , 2001, 65, 016116.	2.1	76
79	Thin and superthin ion current sheets. Quasi-adiabatic and nonadiabatic models. <i>Nonlinear Processes in Geophysics</i> , 2000, 7, 127-139.	1.3	105
80	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
81	Phase transition-like behavior of the magnetosphere during substorms. <i>Journal of Geophysical Research</i> , 2000, 105, 12955-12974.	3.3	90
82	Thin current sheet embedded within a thicker plasma sheet: Self-consistent kinetic theory. <i>Journal of Geophysical Research</i> , 2000, 105, 13029-13043.	3.3	131
83	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
84	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
85	Self-consistent structure of a thin anisotropic current sheet. <i>Journal of Geophysical Research</i> , 1997, 102, 22099-22106.	3.3	49
86	Quasi-neutral sheet tearing instability induced by electron preferential acceleration from stochasticity. <i>Journal of Geophysical Research</i> , 1997, 102, 163-173.	3.3	40
87	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
88	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
89	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
90	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