Anatoly A Petrukovich

List of Publications by Citations

113 papers	2,497 citations	31 h-index	45 g-index
117 ext. papers	2,710 ext. citations	2.6 avg, IF	4.86 L-index

#	Paper	IF	Citations
113	Substorm dipolarization and recovery. *Journal of Geophysical Research*, **1999**, 104, 24995-25000		187
112	Multiple overshoot and rebound of a bursty bulk flow. *Geophysical Research Letters*, **2010**, 37,	4.9	139
111	Thin current sheets in collisionless plasma: Equilibrium structure, plasma instabilities, and particle acceleration. *Plasma Physics Reports*, **2011**, 37, 118-160	1.2	119
110	Embedded current sheets in the Earth□ magnetotail. *Journal of Geophysical Research*, **2011**, 116,		71
109	Two spacecraft observations of a reconnection pulse during an auroral breakup. *Journal of Geophysical Research*, **1998**, 103, 47-59		70
108	Low frequency eigenmodes of thin anisotropic current sheets and Cluster observations. *Annales Geophysicae*, **2009**, 27, 861-868	2	64
107	Oscillatory magnetic flux tube slippage in the plasma sheet. *Annales Geophysicae*, **2006**, 24, 1695-1704	2	62
106	Cluster statistics of thin current sheets in the Earth magnetotail: Specifics of the dawn flank, proton temperature profiles and electrostatic effects. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		59
105	Thin embedded current sheets: Cluster observations of ion kinetic structure and analytical models. *Annales Geophysicae*, **2009**, 27, 4075-4087	2	58
104	Thinning and stretching of the plasma sheet. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		58
103	Origins of plasma sheet By. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		56
102	Plasma sheet thickness during a bursty bulk flow reversal. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		54
101	Proton velocity distribution in thin current sheets: Cluster observations and theory of transient trajectories. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		52
100	Statistical survey on the magnetic structure in magnetotail current sheets. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		49
99	Ion resonance acceleration by dipolarization fronts: analytic theory and spacecraft observation. *Annales Geophysicae*, **2012**, 30, 317-324	2	47
98	Proton/electron temperature ratio in the magnetotail. *Annales Geophysicae*, **2011**, 29, 2253-2257	2	44
97	Substorm-associated pressure variations in the magnetotail plasma sheet and lobe. *Journal of Geophysical Research*, **1999**, 104, 4501-4513		44

96	Metastability of current sheets. *Physics-Uspekhi*, **2010**, 53, 933-941	2.8	42
95	Intense current sheets in the magnetotail: Peculiarities of electron physics. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 2789-2799	2.6	41
94	Magnetic Storms in October 2003. *Cosmic Research*, **2004**, 42, 489-535	0.6	38
93	Cluster observations of **B**z/ during growth phase magnetotail stretching intervals. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 5720-5730	2.6	37
92	Comparison of multi-point measurements of current sheet structure and analytical models. *Annales Geophysicae*, **2008**, 26, 2749-2758	2	37
91	Flow bouncing and electron injection observed by Cluster. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 2055-2072	2.6	36
90	Small substorms: Solar wind input and magnetotail dynamics. *Journal of Geophysical Research*, **2000**, 105, 21109-21117		36
89	Kinetic ballooning/interchange instability in a bent plasma sheet. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		35
88	Electron pitch angle/energy distribution in the magnetotail. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 7214-7227	2.6	34
87	Earthward electric field in the magnetotail: Cluster observations and theoretical estimates. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	34
86	Tailward and earthward flow onsets observed by Cluster in a thin current sheet. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		33
85	Profile of strong magnetic field By component in magnetotail current sheets. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		31
84	Flux transport, dipolarization, and current sheet evolution during a double-onset substorm. *Journal of Geophysical Research*, **2011**, 116,		31
83	Adiabatic electron heating in the magnetotail current sheet: Cluster observations and analytical models. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		31
82	Earth's distant magnetotail current sheet near and beyond lunar orbit. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 8663-8680	2.6	28
81	Dipole tilt effects in plasma sheet <I>B_y</I>: statistical model and extreme values. *Annales Geophysicae*, **2009**, 27, 1343-1352	2	28
80	Are earthward bursty bulk flows convective or field-aligned?. *Journal of Geophysical Research*, **2001**, 106, 21211-21215		28
79	Formation of current density profile in tilted current sheets. *Annales Geophysicae*, **2008**, 26, 3669-3676	2	27

78	Ionospheric response to oscillatory flow braking in the magnetotail. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 1529-1544	2.6	24
77	Thin current sheets with strong bell-shape guide field: Cluster observations and models with beams. *Annales Geophysicae*, **2014**, 32, 1349-1360	2	24
76	Hot electrons as tracers of large-scale structure of magnetotail current sheets. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	23
75	The structure of strongly tilted current sheets in the Earth magnetotail. *Annales Geophysicae*, **2014**, 32, 133-146	2	22
74	Profiles of electron temperature and <I>B</I>_z along Earth's magnetotail. *Annales Geophysicae*, **2013**, 31, 1109-1114	2	22
73	Asymmetric thin current sheets in the Earth's magnetotail. *Geophysical Research Letters*, **2007**, 34,	4.9	22
72	EVIDENCE FOR QUASI-ADIABATIC MOTION OF CHARGED PARTICLES IN STRONG CURRENT SHEETS IN THE SOLAR WIND. *Astrophysical Journal*, **2017**, 834, 34	4.7	21
71	Plasma sheet structure during strongly northward IMF. *Journal of Geophysical Research*, **2003**, 108,		21
70	Time delay of interplanetary magnetic field penetration into Earth's magnetotail. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 3406-3414	2.6	20
69	Thin current sheets in the presence of a guiding magnetic field in Earth's magnetosphere. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		20
68	Magnetic factor in solar-terrestrial relations and its impact on the human body: physical problems and prospects for research. *Physics-Uspekhi*, **2016**, 59, 502-510	2.8	20
67	Statistical Properties of Sub-Ion Magnetic Holes in the Dipolarized Magnetotail: Formation, Structure, and Dynamics. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 342-359	2.6	20
66	Period and damping factor of Pi2 pulsations during oscillatory flow braking in the magnetotail. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 4512-4520	2.6	18
65	The Sun and heliosphere explorer the Interhelioprobe mission. *Geomagnetism and Aeronomy*, **2016**, 56, 781-841	0.9	17
64	Short-duration convection bays and localized interplanetary magnetic field structures on November 28, 1995. *Journal of Geophysical Research*, **1998**, 103, 23593-23609		16
63	Response of the midtail electric field to enhanced solar wind energy input. *Journal of Geophysical Research*, **1999**, 104, 17299-17310		16
62	Extended geomagnetic storm forecast ahead of available solar wind measurements. *Space Weather* , **2012**, 10, n/a-n/a	3.7	15
61	Cluster vision of the magnetotail current sheet on a macroscale. *Journal of Geophysical Research*, **2005**, 110,		14

60	The Substorm Onset Location Controversy. *Space Science Reviews*, **2006**, 122, 81-87	7.5	14
59	Statistics of intense dawn-dusk currents in the Earth's magnetotail. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 3804-3820	2.6	13
58	Formation of sub-ion scale filamentary force-free structures in the vicinity of reconnection region. *Plasma Physics and Controlled Fusion*, **2016**, 58, 054002	2	13
57	Double power-law spectra of energetic electrons in the Earth magnetotail. *Annales Geophysicae*, **2013**, 31, 91-106	2	12
56	The Distribution of Two Flapping Types of Magnetotail Current Sheet: Implication for the Flapping Mechanism. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 7413-7423	2.6	11
55	Plasma-F experiment onboard the Spectr-R satellite. *Cosmic Research*, **2013**, 51, 73-77	0.6	11
54	Charged particle acceleration by intermittent electromagnetic turbulence. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	11
53	Interball-tail observations of vertical plasma motions in the magnetotail. *Annales Geophysicae*, **2002**, 20, 321-327	2	11
52	Kinetic models of magnetic flux ropes observed in the Earth magnetosphere. *Physics of Plasmas*, **2016**, 23, 072901	2.1	11
51	On the increasing oscillation period of flows at the tailward retreating flux pileup region during dipolarization. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 6603-6611	2.6	10
50	Formation of the high-energy ion population in the earth's magnetotail: spacecraft observations and theoretical models. *Annales Geophysicae*, **2014**, 32, 1233-1246	2	10
49	Contribution of Anisotropic Electron Current to the Magnetotail Current Sheet as a Function of Location and Plasma Conditions. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027251	2.6	9
48	Two-dimensional configuration of the magnetotail current sheet: THEMIS observations. *Geophysical Research Letters*, **2015**, 42, 3662-3667	4.9	9
47	Antisunward structure of thin current sheets in the Earth's magnetotail: Implications of quasi-adiabatic theory. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 4308-4318	2.6	9
46	Simultaneous Remote Observations of Intense Reconnection Effects by DMSP and MMS Spacecraft During a Storm Time Substorm. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 10891-10909	2.6	8
45	Two spacecraft observation of plasma sheet convection jet during continuous external driving. *Geophysical Research Letters*, **1999**, 26, 177-180	4.9	8
44	Global View of Current Sheet Thinning: Plasma Pressure Gradients and Large-Scale Currents. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 264-278	2.6	7
43	Cluster Observations of a Dispersive Flapping Event of Magnetotail Current Sheet. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 5571-5579	2.6	7

42	Formation of a quasi-one-dimensional current sheet in the laboratory experiment and in the Earth's magnetotail. *Plasma Physics Reports*, **2015**, 41, 71-87	1.2	7
41	Current Sheet in a non-Maxwellian collisionless plasma: Self-consistent theory, simulation, and comparison with spacecraft observations. *Plasma Physics Reports*, **2010**, 36, 841-858	1.2	7
40	Formation of self-organized shear structures in thin current sheets. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 4802-4824	2.6	6
39	Some aspects of magnetosphere–ionosphere relations. *Physics-Uspekhi*, **2015**, 58, 606-611	2.8	6
38	Structure of Current Sheets with Quasi-Adiabatic Dynamics of Particles in the Solar Wind. *Cosmic Research*, **2018**, 56, 462-470	0.6	6
37	Geomagnetic storm forecasting service StormFocus: 5 years online. *Journal of Space Weather and Space Climate*, **2018**, 8, A22	2.5	6
36	Acceleration of plasma in current sheet during substorm dipolarizations in the Earth's magnetotail: Comparison of different mechanisms. *Physics of Plasmas*, **2019**, 26, 042901	2.1	5
35	Magnetohydrodynamic Modeling of the Solar Wind Key Parameters and Current Sheets in the Heliosphere: Radial and Solar Cycle Evolution. *Astrophysical Journal*, **2020**, 892, 12	4.7	5
34	Model of Solar Wind in the Heliosphere at Low and High Latitudes. *Plasma Physics Reports*, **2018**, 44, 80-91	1.2	5
33	Low Frequency Magnetic Fluctuations in the Earth's Plasma Sheet **2005**, 145-177		5
32	Detailed Regression Model of Plasma Sheet By. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 2872-2883	2.6	4
31	RESONANCE Project for Studies of Wave-Particle Interactions in the Inner Magnetosphere. *Geophysical Monograph Series*, **2013**, 117-126	1.1	4
30	Small-amplitude bipolar flows in the near-Earth tail. *Geophysical Research Letters*, **1999**, 26, 2909-2912	4.9	4
29	Current sheet flapping in the near-Earth magnetotail: peculiarities of propagation and parallel currents. *Annales Geophysicae*, **2016**, 34, 739-750	2	4
28	Hall Effect in Laboratory and Space Current Sheets. *Plasma Physics Reports*, **2018**, 44, 1126-1134	1.2	4
27	Foreshock waves as observed in energetic ion flux. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 4895-4904	2.6	3
26	Heliospheric current sheet and effects of its interaction with solar cosmic rays. *Plasma Physics Reports*, **2016**, 42, 749-760	1.2	3
25	Oscillations of energetic ions flux near the Earth's bow shock. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 4700-4710	2.6	3

24	<I>a_p</I>-index solar wind driving function and its semiannual variations. *Annales Geophysicae*, **2007**, 25, 1465-1469	2	3
23	Clustering of Fast Coronal Mass Ejections during Solar Cycles 23 and 24 and the Implications for CME–CME Interactions. *Astrophysical Journal*, **2020**, 899, 47	4.7	3
22	Formation of Multiple Current Sheets in the Heliospheric Plasma Sheet. *Cosmic Research*, **2020**, 58, 411-425	0.6	3
21	Thermodynamics of the Magnetotail Current Sheet Thinning. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028969	2.6	3
20	Spatial Scales and Plasma Properties of the Distant Magnetopause: Evidence for Selective Ion and Electron Transport. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 5027-5041	2.6	2
19	Energetic particle measurements onboard Spectr-R with MEP-2. *Cosmic Research*, **2013**, 51, 90-95	0.6	2
18	Variability of magnetic field spectra in the Earth's magnetotail. *Nonlinear Processes in Geophysics*, **2009**, 16, 691-698	2.9	2
17	Planetary science. The elusive onset of geomagnetic substorms. *Science*, **2008**, 321, 920-1	33.3	2
16	ULF/ELF monochromatic oscillations observed by Prognoz-8 and -10 spacecrafts during quasiperpendicular supercritical shock crossings. *Annales Geophysicae*, **1995**, 13, 573-582	2	2
15	Modeling of Magnetic Dipolarizations and Turbulence in Earth's Magnetotail as Factors of Plasma Acceleration and Transfer. *Cosmic Research*, **2018**, 56, 453-461	0.6	2
14	Influence of Oxygen Ions on the Structure of the Thin Current Sheet in the Earth's Magnetotail. *Geomagnetism and Aeronomy*, **2020**, 60, 171-183	0.9	1
13	Bistatic Radar Detection in the Luna-Resurs Mission. *Solar System Research*, **2018**, 52, 287-300	0.8	1
12	Acceleration and particle transport in collisionless plasma in the process of dipolarization and nonstationary turbulence. *Cosmic Research*, **2017**, 55, 417-425	0.6	1
11	Influence of Solar Wind Parameters on the Level of Geomagnetic Field Fluctuations. *Cosmic Research*, **2004**, 42, 354-361	0.6	1
10	Comparison of the Flank Magnetopause at Near-Earth and Lunar Distances: MMS and ARTEMIS Observations. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2020JA028406	2.6	1
9	On application of stochastic differential equations for simulation of nonlinear wave–particle resonant interactions. *Physics of Plasmas*, **2021**, 28, 092904	2.1	1
8	Detailed Structure of Very High-Earth Bow Shock. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA029004	2.6	0
7	Charged particle scattering in dipolarized magnetotail. *Physics of Plasmas*, **2021**, 28, 102901	2.1	0

6	Space weather today and the day after tomorrow. *Herald of the Russian Academy of Sciences*, **2015**, 85, 292-294	0.7
5	Adiabatic Heating of Electrons in the Magnetospheric Current Sheet. *Plasma Physics Reports*, **2018**, 44, 559-567	1.2
4	PLASMA-F experiment: Three years of on-orbit operation. *Solar System Research*, **2015**, 49, 580-603	0.8
3	Anatolii Iserovish Neishtadt. *Russian Mathematical Surveys*, **2020**, 75, 981-989	1.2
2	Current Sheets with Multicomponent Plasma in Magnetospheres of Planets of the Solar System. *Cosmic Research*, **2020**, 58, 426-435	0.6
1	The Solar Wind and Heliospheric Current System in the Years of Maximum and Minimum Solar Activity. *Cosmic Research*, **2018**, 56, 411-419	0.6