

Anatoly A Petrukovich

List of Publications by Year in descending order

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116
papers

2,965
citations

136740

32
h-index

189595

50
g-index

117
all docs

117
docs citations

117
times ranked

1156
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermodynamics of the Magnetotail Current Sheet Thinning. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028969.	0.8	8
2	Detailed Structure of Very High- β^2 Earth Bow Shock. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029004.	0.8	3
3	On application of stochastic differential equations for simulation of nonlinear wave-particle resonant interactions. Physics of Plasmas, 2021, 28, .	0.7	10
4	Charged particle scattering in dipolarized magnetotail. Physics of Plasmas, 2021, 28, 102901.	0.7	5
5	Comparison of the Flank Magnetopause at Near-Earth and Lunar Distances: MMS and ARTEMIS Observations. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028406.	0.8	6
6	Current Sheets with Multicomponent Plasma in Magnetospheres of Planets of the Solar System. Cosmic Research, 2020, 58, 426-435.	0.2	0
7	Formation of Multiple Current Sheets in the Heliospheric Plasma Sheet. Cosmic Research, 2020, 58, 411-425.	0.2	6
8	Influence of Oxygen Ions on the Structure of the Thin Current Sheet in the Earth's Magnetotail. Geomagnetism and Aeronomy, 2020, 60, 171-183.	0.2	2
9	Magnetohydrodynamic Modeling of the Solar Wind Key Parameters and Current Sheets in the Heliosphere: Radial and Solar Cycle Evolution. Astrophysical Journal, 2020, 892, 12.	1.6	7
10	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.	0.8	12
11	Modern view of the solar wind from micro to macro scales. Physics-Uspexhi, 2020, 63, 801-811.	0.8	4
12	Clustering of Fast Coronal Mass Ejections during Solar Cycles 23 and 24 and the Implications for CME-CME Interactions. Astrophysical Journal, 2020, 899, 47.	1.6	8
13	Anatolii Iserovich Neishtadt. Russian Mathematical Surveys, 2020, 75, 981-989.	0.2	0
14	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.	0.8	7
15	Global View of Current Sheet Thinning: Plasma Pressure Gradients and Large-Scale Currents. Journal of Geophysical Research: Space Physics, 2019, 124, 264-278.	0.8	12
16	Acceleration of plasma in current sheet during substorm dipolarizations in the Earth's magnetotail: Comparison of different mechanisms. Physics of Plasmas, 2019, 26, 042901.	0.7	6
17	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.	0.8	31
18	Model of Solar Wind in the Heliosphere at Low and High Latitudes. Plasma Physics Reports, 2018, 44, 80-91.	0.3	7

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19	Detailed Regression Model of Plasma Sheet $\langle i \rangle_B$. Journal of Geophysical Research: Space Physics, 2018, 123, 2872-2883.	0.8	7
20	Structure of Current Sheets with Quasi-Adiabatic Dynamics of Particles in the Solar Wind. Cosmic Research, 2018, 56, 462-470.	0.2	7
21	The Solar Wind and Heliospheric Current System in the Years of Maximum and Minimum Solar Activity. Cosmic Research, 2018, 56, 411-419.	0.2	0
22	Hall Effect in Laboratory and Space Current Sheets. Plasma Physics Reports, 2018, 44, 1126-1134.	0.3	6
23	Lev Matveevich Zelenyi (on his 70th birthday). Physics-Usppekhi, 2018, 61, 819-821.	0.8	0
24	Modeling of Magnetic Dipolarizations and Turbulence in Earth's Magnetotail as Factors of Plasma Acceleration and Transfer. Cosmic Research, 2018, 56, 453-461.	0.2	2
25	Geomagnetic storm forecasting service StormFocus: 5 years online. Journal of Space Weather and Space Climate, 2018, 8, A22.	1.1	9
26	Adiabatic Heating of Electrons in the Magnetospheric Current Sheet. Plasma Physics Reports, 2018, 44, 559-567.	0.3	0
27	Bistatic Radar Detection in the Luna-Resurs Mission. Solar System Research, 2018, 52, 287-300.	0.3	5
28	Cluster Observations of a Dispersive Flapping Event of Magnetotail Current Sheet. Journal of Geophysical Research: Space Physics, 2018, 123, 5571-5579.	0.8	12
29	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.	0.8	17
30	Foreshock waves as observed in energetic ion flux. Journal of Geophysical Research: Space Physics, 2017, 122, 4895-4904.	0.8	3
31	EVIDENCE FOR QUASI-ADIABATIC MOTION OF CHARGED PARTICLES IN STRONG CURRENT SHEETS IN THE SOLAR WIND. Astrophysical Journal, 2017, 834, 34.	1.6	25
32	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.	0.8	17
33	Acceleration and particle transport in collisionless plasma in the process of dipolarization and nonstationary turbulence. Cosmic Research, 2017, 55, 417-425.	0.2	1
34	Current sheet flapping in the near-Earth magnetotail: peculiarities of propagation and parallel currents. Annales Geophysicae, 2016, 34, 739-750.	0.6	6
35	Kinetic models of magnetic flux ropes observed in the Earth magnetosphere. Physics of Plasmas, 2016, 23, .	0.7	14
36	Magnetic factor in solar-terrestrial relations and its impact on the human body: physical problems and prospects for research. Physics-Usppekhi, 2016, 59, 502-510.	0.8	34

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37	Heliospheric current sheet and effects of its interaction with solar cosmic rays. Plasma Physics Reports, 2016, 42, 749-760.	0.3	3
38	Formation of sub-ion scale filamentary force-free structures in the vicinity of reconnection region. Plasma Physics and Controlled Fusion, 2016, 58, 054002.	0.9	15
39	The Sun and heliosphere explorer – the Interhelioprobe mission. Geomagnetism and Aeronomy, 2016, 56, 781-841.	0.2	23
40	Formation of self-organized shear structures in thin current sheets. Journal of Geophysical Research: Space Physics, 2015, 120, 4802-4824.	0.8	9
41	Some aspects of magnetosphere-ionosphere relations. Physics-Uspexhi, 2015, 58, 606-611.	0.8	7
42	Earth's distant magnetotail current sheet near and beyond lunar orbit. Journal of Geophysical Research: Space Physics, 2015, 120, 8663-8680.	0.8	35
43	Two-dimensional configuration of the magnetotail current sheet: THEMIS observations. Geophysical Research Letters, 2015, 42, 3662-3667.	1.5	12
44	Oscillations of energetic ions flux near the Earth's bow shock. Journal of Geophysical Research: Space Physics, 2015, 120, 4700-4710.	0.8	3
45	Time delay of interplanetary magnetic field penetration into Earth's magnetotail. Journal of Geophysical Research: Space Physics, 2015, 120, 3406-3414.	0.8	25
46	PLASMA-F experiment: Three years of on-orbit operation. Solar System Research, 2015, 49, 580-603.	0.3	1
47	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.	0.3	9
48	Statistics of intense dawn-dusk currents in the Earth's magnetotail. Journal of Geophysical Research: Space Physics, 2015, 120, 3804-3820.	0.8	15
49	Space weather today and the day after tomorrow. Herald of the Russian Academy of Sciences, 2015, 85, 292-294.	0.2	0
50	Formation of the high-energy ion population in the earth's magnetotail: spacecraft observations and theoretical models. Annales Geophysicae, 2014, 32, 1233-1246.	0.6	11
51	Thin current sheets with strong bell-shape guide field: Cluster observations and models with beams. Annales Geophysicae, 2014, 32, 1349-1360.	0.6	28
52	The structure of strongly tilted current sheets in the Earth magnetotail. Annales Geophysicae, 2014, 32, 133-146.	0.6	27
53	Period and damping factor of P_1 pulsations during oscillatory flow braking in the magnetotail. Journal of Geophysical Research: Space Physics, 2014, 119, 4512-4520.	0.8	20
54	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.	0.8	10

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55	Electron pitch angle/energy distribution in the magnetotail. Journal of Geophysical Research: Space Physics, 2014, 119, 7214-7227.	0.8	39
56	Ionospheric response to oscillatory flow braking in the magnetotail. Journal of Geophysical Research: Space Physics, 2013, 118, 1529-1544.	0.8	25
57	Energetic particle measurements onboard Spectr-R with MEP-2. Cosmic Research, 2013, 51, 90-95.	0.2	2
58	Cluster observations of \hat{v}_z during growth phase magnetotail stretching intervals. Journal of Geophysical Research: Space Physics, 2013, 118, 5720-5730.	0.8	39
59	RESONANCE Project for Studies of Wave-Particle Interactions in the Inner Magnetosphere. Geophysical Monograph Series, 2013, , 117-126.	0.1	5
60	Intense current sheets in the magnetotail: Peculiarities of electron physics. Journal of Geophysical Research: Space Physics, 2013, 118, 2789-2799.	0.8	51
61	Plasma-F experiment onboard the Spectr-R satellite. Cosmic Research, 2013, 51, 73-77.	0.2	13
62	Double power-law spectra of energetic electrons in the Earth magnetotail. Annales Geophysicae, 2013, 31, 91-106.	0.6	12
63	Profiles of electron temperature and B_z along Earth's magnetotail. Annales Geophysicae, 2013, 31, 1109-1114.	0.6	25
64	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.	0.8	12
65	Flow bouncing and electron injection observed by Cluster. Journal of Geophysical Research: Space Physics, 2013, 118, 2055-2072.	0.8	38
66	Ion resonance acceleration by dipolarization fronts: analytic theory and spacecraft observation. Annales Geophysicae, 2012, 30, 317-324.	0.6	53
67	Adiabatic electron heating in the magnetotail current sheet: Cluster observations and analytical models. Journal of Geophysical Research, 2012, 117, .	3.3	37
68	Thin current sheets in the presence of a guiding magnetic field in Earth's magnetosphere. Journal of Geophysical Research, 2012, 117, .	3.3	24
69	Profile of strong magnetic field B_y component in magnetotail current sheets. Journal of Geophysical Research, 2012, 117, .	3.3	33
70	Kinetic ballooning/interchange instability in a bent plasma sheet. Journal of Geophysical Research, 2012, 117, .	3.3	41
71	Extended geomagnetic storm forecast ahead of available solar wind measurements. Space Weather, 2012, 10, .	1.3	20
72	Embedded current sheets in the Earth's magnetotail. Journal of Geophysical Research, 2011, 116, .	3.3	78

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73	Flux transport, dipolarization, and current sheet evolution during a double-onset substorm. Journal of Geophysical Research, 2011, 116, .	3.3	35
74	Origins of plasma sheet B_y . Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	63
75	Charged particle acceleration by intermittent electromagnetic turbulence. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	12
76	Statistical survey on the magnetic structure in magnetotail current sheets. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	55
77	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.	3.3	68
78	Hot electrons as tracers of large-scale structure of magnetotail current sheets. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	26
79	Thin current sheets in collisionless plasma: Equilibrium structure, plasma instabilities, and particle acceleration. Plasma Physics Reports, 2011, 37, 118-160.	0.3	142
80	Proton/electron temperature ratio in the magnetotail. Annales Geophysicae, 2011, 29, 2253-2257.	0.6	50
81	Current Sheet in a non-Maxwellian collisionless plasma: Self-consistent theory, simulation, and comparison with spacecraft observations. Plasma Physics Reports, 2010, 36, 841-858.	0.3	8
82	Metastability of current sheets. Physics-Uspexhi, 2010, 53, 933-941.	0.8	53
83	Multiple overshoot and rebound of a bursty bulk flow. Geophysical Research Letters, 2010, 37, .	1.5	153
84	Earthward electric field in the magnetotail: Cluster observations and theoretical estimates. Geophysical Research Letters, 2010, 37, .	1.5	37
85	Proton velocity distribution in thin current sheets: Cluster observations and theory of transient trajectories. Journal of Geophysical Research, 2010, 115, .	3.3	57
86	Plasma sheet thickness during a bursty bulk flow reversal. Journal of Geophysical Research, 2010, 115, .	3.3	60
87	Low frequency eigenmodes of thin anisotropic current sheets and Cluster observations. Annales Geophysicae, 2009, 27, 861-868.	0.6	69
88	Thin embedded current sheets: Cluster observations of ion kinetic structure and analytical models. Annales Geophysicae, 2009, 27, 4075-4087.	0.6	61
89	Variability of magnetic field spectra in the Earth's magnetotail. Nonlinear Processes in Geophysics, 2009, 16, 691-698.	0.6	3
90	Dipole tilt effects in plasma sheet B_y : statistical model and extreme values. Annales Geophysicae, 2009, 27, 1343-1352.	0.6	31

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91	Scales in a thinning plasma sheet. , 2009, , .		0
92	Tailward and earthward flow onsets observed by Cluster in a thin current sheet. Journal of Geophysical Research, 2009, 114, .	3.3	35
93	The Elusive Onset of Geomagnetic Substorms. Science, 2008, 321, 920-921.	6.0	3
94	Comparison of multi-point measurements of current sheet structure and analytical models. Annales Geophysicae, 2008, 26, 2749-2758.	0.6	39
95	Formation of current density profile in tilted current sheets. Annales Geophysicae, 2008, 26, 3669-3676.	0.6	29
96	Thinning and stretching of the plasma sheet. Journal of Geophysical Research, 2007, 112, .	3.3	70
97	Asymmetric thin current sheets in the Earth's magnetotail. Geophysical Research Letters, 2007, 34, .	1.5	28
98	<l>a<sub>p</sub></l>-index solar wind driving function and its semiannual variations. Annales Geophysicae, 2007, 25, 1465-1469.	0.6	5
99	Oscillatory magnetic flux tube slippage in the plasma sheet. Annales Geophysicae, 2006, 24, 1695-1704.	0.6	71
100	The Substorm Onset Location Controversy. Space Science Reviews, 2006, 122, 81-87.	3.7	16
101	Low Frequency Magnetic Fluctuations in the Earth's Plasma Sheet. , 2005, , 145-177.		6
102	Cluster vision of the magnetotail current sheet on a macroscale. Journal of Geophysical Research, 2005, 110, .	3.3	17
103	Influence of Solar Wind Parameters on the Level of Geomagnetic Field Fluctuations. Cosmic Research, 2004, 42, 354-361.	0.2	1
104	Magnetic Storms in October 2003. Cosmic Research, 2004, 42, 489-535.	0.2	53
105	Plasma sheet structure during strongly northward IMF. Journal of Geophysical Research, 2003, 108, .	3.3	27
106	Interball-tail observations of vertical plasma motions in the magnetotail. Annales Geophysicae, 2002, 20, 321-327.	0.6	11
107	Are earthward bursty bulk flows convective or field-aligned?. Journal of Geophysical Research, 2001, 106, 21211-21215.	3.3	31
108	Small substorms: Solar wind input and magnetotail dynamics. Journal of Geophysical Research, 2000, 105, 21109-21117.	3.3	41

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109	Substorm-associated pressure variations in the magnetotail plasma sheet and lobe. <i>Journal of Geophysical Research</i> , 1999, 104, 4501-4513.	3.3	50
110	Two spacecraft observation of plasma sheet convection jet during continuous external driving. <i>Geophysical Research Letters</i> , 1999, 26, 177-180.	1.5	9
111	Small-amplitude bipolar flows in the near-Earth tail. <i>Geophysical Research Letters</i> , 1999, 26, 2909-2912.	1.5	7
112	Response of the midtail electric field to enhanced solar wind energy input. <i>Journal of Geophysical Research</i> , 1999, 104, 17299-17310.	3.3	17
113	Substorm dipolarization and recovery. <i>Journal of Geophysical Research</i> , 1999, 104, 24995-25000.	3.3	213
114	Two spacecraft observations of a reconnection pulse during an auroral breakup. <i>Journal of Geophysical Research</i> , 1998, 103, 47-59.	3.3	84
115	Short-duration convection bays and localized interplanetary magnetic field structures on November 28, 1995. <i>Journal of Geophysical Research</i> , 1998, 103, 23593-23609.	3.3	17
116	ULF/ELF monochromatic oscillations observed by Prognoz-8 and -10 spacecrafts during quasiperpendicular supercritical shock crossings. <i>Annales Geophysicae</i> , 1995, 13, 573-582.	0.6	3