

# Igor Alekseev

## List of Publications by Year in descending order

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89  
papers

2,022  
citations

236925

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44  
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98  
all docs

98  
docs citations

98  
times ranked

1047  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetic storms and magnetotail currents. <i>Journal of Geophysical Research</i> , 1996, 101, 7737-7747.	3.3	180
2	Mercury's magnetospheric magnetic field after the first two MESSENGER flybys. <i>Icarus</i> , 2010, 209, 23-39.	2.5	110
3	MESSENGER observations of Mercury's magnetic field structure. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	109
4	Cassini observations of the variation of Saturn's ring current parameters with system size. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	108
5	Partially Ionized Plasmas in Astrophysics. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	102
6	Field-aligned currents in Saturn's southern nightside magnetosphere: Subcorotation and planetary period oscillation components. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 9847-9899.	2.4	87
7	Modeling of the Jovian Magnetosphere. <i>Annales Geophysicae</i> , 2005, 23, 809-826.	1.6	72
8	Field-aligned currents in Saturn's northern nightside magnetosphere: Evidence for interhemispheric current flow associated with planetary period oscillations. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 7552-7584.	2.4	70
9	A model of a magnetic field in the geomagnetosphere. <i>Planetary and Space Science</i> , 1972, 20, 117-133.	1.7	69
10	MAGNETOSPHERES OF "HOT JUPITERS": THE IMPORTANCE OF MAGNETODISKS IN SHAPING A MAGNETOSPHERIC OBSTACLE. <i>Astrophysical Journal</i> , 2012, 744, 70.	4.5	63
11	Paraboloid model of Mercury's magnetosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	59
12	A simple axisymmetric model of magnetosphere-ionosphere coupling currents in Jupiter's polar ionosphere. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	58
13	Dynamic model of the magnetosphere: Case study for January 9-12, 1997. <i>Journal of Geophysical Research</i> , 2001, 106, 25683-25693.	3.3	55
14	Magnetic Storms in October 2003. <i>Cosmic Research</i> , 2004, 42, 489-535.	0.6	53
15	The penetration of interplanetary magnetic and electric fields into the magnetosphere.. <i>Journal of Geomagnetism and Geoelectricity</i> , 1986, 38, 1199-1221.	0.9	48
16	A global magnetic model of Saturn's magnetosphere and a comparison with Cassini SOI data. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	44
17	Concerning the location of magnetopause merging as a function of the magnetopause current strength. <i>Journal of Geophysical Research</i> , 1998, 103, 6675-6684.	3.3	42
18	Special features of the September 24-27, 1998 storm during high solar wind dynamic pressure and northward interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 2001, 106, 25695-25711.	3.3	40

#	ARTICLE	IF	CITATIONS
19	Modeling of geomagnetic field during magnetic storms and comparison with observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 431-440.	1.6	38
20	Modelling of the electromagnetic field in the interplanetary space and in the Earth's magnetosphere. Space Science Reviews, 2003, 107, 7-26.	8.1	37
21	Structure of the magnetospheric magnetic field during magnetic storms. Journal of Geophysical Research, 1999, 104, 28351-28360.	3.3	36
22	Self-consistent modeling of the large-scale distortions in the geomagnetic field during the 24 <sup>th</sup> September 1998 major magnetic storm. Journal of Geophysical Research, 2005, 110, .	3.3	34
23	A model of region 1 field-aligned currents dependent on ionospheric conductivity and solar wind parameters. Journal of Geophysical Research, 2000, 105, 21119-21127.	3.3	26
24	A model of Jupiter's magnetospheric magnetic field with variable magnetopause flaring. Planetary and Space Science, 2005, 53, 863-872.	1.7	26
25	Energetic particle dynamics in Mercury's magnetosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 1992-1999.	2.4	26
26	Where do field lines go in the quiet magnetosphere?. Reviews of Geophysics, 1988, 26, 782-791.	23.0	25
27	Saturn's dayside ultraviolet auroras: Evidence for morphological dependence on the direction of the upstream interplanetary magnetic field. Journal of Geophysical Research: Space Physics, 2014, 119, 1994-2008.	2.4	25
28	Field-aligned Currents in Saturn's Nightside Magnetosphere: Subcorotation and Planetary Period Oscillation Components During Northern Spring. Journal of Geophysical Research: Space Physics, 2018, 123, 3602-3636.	2.4	24
29	Electric fields and field-aligned current generation in the magnetosphere. Journal of Geophysical Research, 1993, 98, 4041-4051.	3.3	22
30	Energetics of the magnetosphere during the magnetic storm. Journal of Atmospheric and Solar-Terrestrial Physics, 2003, 65, 429-446.	1.6	21
31	Field-aligned currents in Saturn's magnetosphere: Local time dependence of southern summer currents in the dawn sector between midnight and noon. Journal of Geophysical Research: Space Physics, 2016, 121, 7785-7804.	2.4	21
32	Definition of Saturn's magnetospheric model parameters for the Pioneer 11 flyby. Annales Geophysicae, 2006, 24, 1145-1156.	1.6	19
33	Saturn's aurora in the January 2004 events. Annales Geophysicae, 2006, 24, 1649-1663.	1.6	18
34	Magnetospheric magnetic field modelling for the 2011 and 2012 HST Saturn aurora campaigns – implications for auroral source regions. Annales Geophysicae, 2014, 32, 689-704.	1.6	18
35	Magnetic field and plasma flow structure near the magnetopause. Journal of Geophysical Research, 1995, 100, 19267.	3.3	17
36	Model of Jupiter's Current Sheet With a Piecewise Current Density. Journal of Geophysical Research: Space Physics, 2019, 124, 1843-1854.	2.4	16

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37	IMF dependence of the open-closed field line boundary in Saturn's ionosphere, and its relation to the UV auroral oval observed by the Hubble Space Telescope. <i>Annales Geophysicae</i> , 2007, 25, 1215-1226.	1.6	15
38	Transpolar aurora: time evolution, associated convection patterns, and a possible cause. <i>Annales Geophysicae</i> , 2005, 23, 1917-1930.	1.6	12
39	IMF dependence of Saturn's auroras: modelling study of HST and Cassini data from 12â€“15 February 2008. <i>Annales Geophysicae</i> , 2010, 28, 1559-1570.	1.6	12
40	On interplanetary electric and magnetic fields. <i>Solar Physics</i> , 1982, 79, 385-397.	2.5	11
41	Field-aligned current distribution in the transition current system. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	11
42	Evolution of the Earth's Polar Outflow From Midâ€“Archean to Present. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027837.	2.4	10
43	Simultaneous polar aurorae and modelled convection patterns in both hemispheres. <i>Advances in Space Research</i> , 2006, 38, 1685-1693.	2.6	9
44	Ring current asymmetry during a magnetic storm. <i>Geomagnetism and Aeronomy</i> , 2008, 48, 747-758.	0.8	9
45	Influence of the solar wind magnetic field on the Earth and Mercury magnetospheres in the paraboloidal model. <i>Planetary and Space Science</i> , 2013, 75, 46-55.	1.7	8
46	Modelling of the Electromagnetic Field in the Interplanetary Space and in the Earthâ€™s Magnetosphere. , 2003, , 7-26.		7
47	The geotail and ring current dynamics under disturbed conditions. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2001, 63, 473-479.	1.6	6
48	Investigation of scaling properties of a thin current sheet by means of particle trajectories study. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 1633-1645.	2.4	6
49	Dynamics of the auroral electrojets and their mapping to the magnetosphere. <i>Radiation Measurements</i> , 1999, 30, 579-587.	1.4	5
50	What Defines the Polar Cap and Auroral Oval Diameters?. <i>Geophysical Monograph Series</i> , 0, , 257-262.	0.1	5
51	Magnetopause mapping to the ionosphere for northward IMF. <i>Annales Geophysicae</i> , 2007, 25, 2615-2625.	1.6	5
52	Stellar CME activity and its possible influence on exoplanets' environments: Importance of magnetospheric protection. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 335-346.	0.0	5
53	AlfvÃ©n wings in the vicinity of a conducting body in a magnetized plasma. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1991, 53, 1099-1101.	0.9	4
54	Model of current sheet in the magnetosphere tail taking into account the interaction of untrapped and trapped particles. <i>Advances in Space Research</i> , 1995, 16, 205-208.	2.6	4

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55	Modeling the Dst variation during magnetic storms. <i>Geomagnetism and Aeronomy</i> , 2006, 46, 563-569.	0.8	4
56	Magnetic field of the transition current system: dawn-dusk asymmetry. <i>Annales Geophysicae</i> , 2007, 25, 1899-1911.	1.6	4
57	The final version of the FUMILIM minimization package. <i>Computer Physics Communications</i> , 2020, 251, 107202.	7.5	4
58	Axially Asymmetric Steady State Model of Jupiter's Magnetosphere-Ionosphere Coupling. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029608.	2.4	4
59	Auroral electrojet dynamics during magnetic storms, connection with plasma precipitation and large-scale structure of the magnetospheric magnetic field. <i>Annales Geophysicae</i> , 1999, 17, 497-507.	1.6	3
60	Energy flux in the Earth's magnetosphere: Storm "substorm" relationship. <i>Space Science Reviews</i> , 2003, 107, 141-148.	8.1	3
61	Solar Wind Control of the Magnetospheric and Auroral Dynamics. <i>Space Science Reviews</i> , 2006, 122, 55-68.	8.1	3
62	On the large-scale structure of the tail current as measured by THEMIS. <i>Advances in Space Research</i> , 2014, 54, 1773-1785.	2.6	3
63	The energy-based scaling of a thin current sheet: Case study. <i>Geophysical Research Letters</i> , 2015, 42, 9609-9616.	4.0	3
64	Aurora at high latitudes of Ganymede. <i>Astronomy Letters</i> , 2015, 41, 687-692.	1.0	3
65	Lorenz system in the thermodynamic modelling of leukaemia malignancy. <i>Medical Hypotheses</i> , 2017, 102, 150-155.	1.5	3
66	Simulation of Mercury's magnetosheath with a combined hybrid-paraboloid model. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 8310-8326.	2.4	3
67	Magnetodisk-dominated magnetospheres of close orbit giant exoplanets. <i>EAS Publications Series</i> , 2012, 58, 233-237.	0.3	2
68	The influence of kinetic effect on the MHD scalings of a thin current sheet. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 493-500.	2.4	2
69	Calculation of the Initial Magnetic Field for Mercury's Magnetosphere Hybrid Model. <i>Cosmic Research</i> , 2018, 56, 108-114.	0.6	2
70	Influence of the Earth's ring current strength on Störmer's allowed and forbidden regions of charged particle motion. <i>Annales Geophysicae</i> , 2019, 37, 535-547.	1.6	2
71	Electromagnetic interaction of the solar wind generator with the magnetosphere carried by field-aligned currents. <i>Advances in Space Research</i> , 1993, 13, 33-35.	2.6	1
72	Convection vortex at dayside of high latitude ionosphere. <i>Physics and Chemistry of the Earth</i> , 1997, 22, 691-696.	0.3	1

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73	Case study of September 24â€“26, 1998 magnetic storm. <i>Advances in Space Research</i> , 2005, 36, 2428-2433.	2.6	1
74	The magnetospheres of Mercury, Earth, and the giant planets Jupiter and Saturn. <i>Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika)</i> , 2010, 65, 300-306.	0.4	1
75	Open and partially closed models of the solar wind interaction with outer planet magnetospheres: the case of Saturn. <i>Annales Geophysicae</i> , 2017, 35, 1293-1308.	1.6	1
76	Self-consistent description of the tangential-discontinuity-type current sheet, using the particle trajectory method and angular variables. <i>Physics of Plasmas</i> , 2018, 25, 092110.	1.9	1
77	Magnetodisc modelling in Jupiter's magnetosphere using Juno magnetic field data and the paraboloid magnetic field model. <i>Annales Geophysicae</i> , 2019, 37, 101-109.	1.6	1
78	Sliding Contacts in Planetary Magnetospheres. <i>Symmetry</i> , 2021, 13, 283.	2.2	1
79	A Model of Jupiterâ€™s Current Disk Optimized for Juno and Galileo Magnetic Field Data. <i>Cosmic Research</i> , 2021, 59, 175-182.	0.6	1
80	Location of the Inner Edges of Astrophysical Discs Related to the Central Object. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2012, , 217-226.	0.3	1
81	Magnetosphere Environment from Solar System Planets/Moons to Exoplanets. <i>Astrophysics and Space Science Library</i> , 2015, , 189-212.	2.7	1
82	Modeling of Magnetospheres of Terrestrial Exoplanets in the Habitable Zone around G-Type Stars. <i>Universe</i> , 2022, 8, 231.	2.5	1
83	Tail current sheet dynamics in the disturbed magnetosphere. <i>Advances in Space Research</i> , 1993, 13, 229-233.	2.6	0
84	Title is missing!. <i>Cosmic Research</i> , 2003, 41, 359-370.	0.6	0
85	Low-latitude variations in the geomagnetic field caused by solar wind disturbances. <i>Geomagnetism and Aeronomy</i> , 2014, 54, 445-448.	0.8	0
86	Transient particle acceleration by a dawnâ€“dusk electric field in a current sheet. <i>Physics of Plasmas</i> , 2021, 28, 042902.	1.9	0
87	Excess of Sodium Ions Density Required to Create a Wide Current at the Hermean Magnetopause. <i>Universe</i> , 2021, 7, 355.	2.5	0
88	Magnetospheres of the Mercury, Earth, Jupiter, and Saturn. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2012, , 209-216.	0.3	0
89	Possibility of the Existence of Trapped Radiation near Mercury. <i>Astronomy Letters</i> , 2020, 46, 762-773.	1.0	0