Nick Omidi

List of Publications by Year
in descending order

86 papers	3,138 citations	136950 32 h-index	175258 52 g-index
88 all docs	88 docs citations	88 times ranked	1441 citing authors

#	Article	IF	Citations
1	Dayside Transient Phenomena and Their Impact on the Magnetosphere and Ionosphere. Space Science Reviews, 2022, 218, .	8.1	35
2	Ion Acceleration by Foreshock Bubbles. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028924.	2.4	12
3	Foreshock Cavities: Direct Transmission Through the Bow Shock. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029201.	2.4	9
4	Comparison of MMS Observations of Foreshock Bubbles With a Global Hybrid Simulation. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028848.	2.4	5
5	High Mach Number Quasiâ€Perpendicular Shocks: Spatial Versus Temporal Structure. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029287.	2.4	8
6	Magnetic Holes Upstream of the Martian Bow Shock: MAVEN Observations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027198.	2.4	19
7	Foreshock Cavities at Venus and Mars. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028023.	2.4	7
8	Microscopic, Multipoint Characterization of Foreshock Bubbles With Magnetospheric Multiscale (MMS). Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027707.	2.4	40
9	Formation and Topology of Foreshock Bubbles. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028058.	2.4	30
10	Solar Wind Deflection in the Foreshock: Modelâ€Data Comparison. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA026970.	2.4	1
11	Foreshock Bubbles at Venus: Hybrid Simulations and VEX Observations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027056.	2.4	14
12	Reply to: Comment on â€œThe Dominant Role of Energetic Ions in Solar Wind Interaction With the Moonâ€•by Poppe. Journal of Geophysical Research: Space Physics, 2019, 124, 6933-6937.	2.4	2
13	The Dominant Role of Energetic Ions in Solar Wind Interaction With the Moon. Journal of Geophysical Research: Space Physics, 2019, 124, 3176-3192.	2.4	6
14	Solar Wind Induced Waves in the Skies of Mars: Ionospheric Compression, Energization, and Escape Resulting From the Impact of Ultralow Frequency Magnetosonic Waves Generated Upstream of the Martian Bow Shock. Journal of Geophysical Research: Space Physics, 2018, 123, 7241-7256.	2.4	32
15	Jets Downstream of Collisionless Shocks. Space Science Reviews, 2018, 214, 1.	8.1	101
16	Structure and Properties of the Foreshock at Venus. Journal of Geophysical Research: Space Physics, 2017, 122, 10,275.	2.4	17
17	Spontaneous hot flow anomalies at Mars and Venus. Journal of Geophysical Research: Space Physics, 2017, 122, 9910-9923.	2.4	15
18	Traveling Foreshocks and Transient Foreshock Phenomena. Journal of Geophysical Research: Space Physics, 2017, 122, 9148-9168.	2.4	26

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19	A Single Deformed Bow Shock for Titanâ€Saturn System. Journal of Geophysical Research: Space Physics, 2017, 122, 11,058.	2.4	7
20	THEMIS satellite observations of hot flow anomalies at Earth's bow shock. Annales Geophysicae, 2017, 35, 443-451.	1.6	27
21	Impacts of spontaneous hot flow anomalies on the magnetosheath and magnetopause. Journal of Geophysical Research: Space Physics, 2016, 121, 3155-3169.	2.4	44
22	Multipoint observations of the structure and evolution of foreshock bubbles and their relation to hot flow anomalies. Journal of Geophysical Research: Space Physics, 2016, 121, 5489-5509.	2.4	42
23	Ion energy distributions and densities in the plume of Enceladus. Planetary and Space Science, 2016, 130, 60-79.	1.7	4
24	THEMIS observations of tangential discontinuityâ€driven foreshock bubbles. Geophysical Research Letters, 2015, 42, 7860-7866.	4.0	59
25	Magnetosheath plasma structures and their relation to foreshock processes. Journal of Geophysical Research: Space Physics, 2015, 120, 7687-7697.	2.4	31
26	Generation and propagation of ion cyclotron waves in nonuniform magnetic field: Application to the corona and solar wind. Journal of Geophysical Research: Space Physics, 2014, 119, 8750-8763.	2.4	5
27	Generation of ion cyclotron waves in the corona and solar wind. Journal of Geophysical Research: Space Physics, 2014, 119, 1442-1454.	2.4	18
28	ELECTROMAGNETIC WAVES NEAR THE PROTON CYCLOTRON FREQUENCY:STEREOOBSERVATIONS. Astrophysical Journal, 2014, 786, 123.	4.5	66
29	Magnetosheath filamentary structures formed by ion acceleration at the quasiâ€parallel bow shock. Journal of Geophysical Research: Space Physics, 2014, 119, 2593-2604.	2.4	36
30	Parametric dependencies of spontaneous hot flow anomalies. Journal of Geophysical Research: Space Physics, 2014, 119, 9823-9833.	2.4	27
31	Impact of cold O+ions on the generation and evolution of EMIC waves. Journal of Geophysical Research: Space Physics, 2013, 118, 434-445.	2.4	32
32	Spontaneous hot flow anomalies at quasiâ€parallel shocks: 1. Observations. Journal of Geophysical Research: Space Physics, 2013, 118, 3357-3363.	2.4	92
33	Spontaneous hot flow anomalies at quasiâ€parallel shocks: 2. Hybrid simulations. Journal of Geophysical Research: Space Physics, 2013, 118, 173-180.	2.4	81
34	First observations of foreshock bubbles upstream of Earth's bow shock: Characteristics and comparisons to HFAs. Journal of Geophysical Research: Space Physics, 2013, 118, 1552-1570.	2.4	102
35	Foreshock compressional boundaries observed by Cluster. Journal of Geophysical Research: Space Physics, 2013, 118, 698-715.	2.4	20
36	Dynamics of the foreshock compressional boundary and its connection to foreshock cavities. Journal of Geophysical Research: Space Physics, 2013, 118, 823-831.	2.4	43

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37	Statistical study of foreshock cavitons. Annales Geophysicae, 2013, 31, 2163-2178.	1.6	29
38	Theory and Simulation of Cometary Shocks. Geophysical Monograph Series, 2013, , 37-47.	0.1	6
39	THEMIS observations of unusual bow shock motion attending a transient magnetospheric event. Journal of Geophysical Research, 2012, 117, .	3.3	6
40	Evidence of multiple reconnection lines at the magnetopause from cusp observations. Journal of Geophysical Research, 2012, 117, .	3.3	25
41	Flow stagnation at Enceladus: The effects of neutral gas and charged dust. Journal of Geophysical Research, 2012, 117, .	3.3	9
42	Flux transfer events: Motion and signatures. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 87-88, 20-24.	1.6	10
43	Foreshock cavitons for different interplanetary magnetic field geometries: Simulations and observations. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	59
44	Hybrid simulations of EMIC waves in a dipolar magnetic field. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	21
45	Saturation characteristics of electromagnetic ion cyclotron waves. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	31
46	Multi-spacecraft study of foreshock cavitons upstream of the quasi-parallel bow shock. Planetary and Space Science, 2011, 59, 705-714.	1.7	37
47	Analysis of waves surrounding foreshock cavitons. , 2010, , .		12
48	Hybrid Simulations of Plasma-Neutral-Dust Interactions at Enceladus. , 2010, , .		2
49	Hybrid simulations of the plasma environment around Enceladus. Journal of Geophysical Research, 2010, 115, .	3.3	8
50	Foreshock bubbles and their global magnetospheric impacts. Journal of Geophysical Research, 2010, 115, .	3.3	107
51	Nonlinear evolution of EMIC waves in a uniform magnetic field: 2. Testâ€particle scattering. Journal of Geophysical Research, 2010, 115, .	3.3	27
52	Nonlinear evolution of EMIC waves in a uniform magnetic field: 1. Hybrid simulations. Journal of Geophysical Research, 2010, 115, .	3.3	43
53	Global hybrid simulations: Foreshock waves and cavitons under radial interplanetary magnetic field geometry. Journal of Geophysical Research, 2009, 114, .	3.3	96
54	Hybrid simulations of magnetic reconnection initiated in the magnetosheath. Journal of Geophysical Research, 2009, 114, .	3.3	16

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55	Determining ion production rates near Saturn's extended neutral cloud from ion cyclotron wave amplitudes. Journal of Geophysical Research, 2009, 114, .	3.3	17
56	Foreshock compressional boundary. Journal of Geophysical Research, 2009, 114, .	3.3	56
57	On the edge of the foreshock: model-data comparisons. Annales Geophysicae, 2008, 26, 1539-1544.	1.6	39
58	Formation of cavities in the foreshock. AIP Conference Proceedings, 2007, , .	0.4	33
59	Flux transfer events in the cusp. Geophysical Research Letters, 2007, 34, .	4.0	41
60	Formation of hot flow anomalies and solitary shocks. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	107
61	Macrostructure of collisionless bow shocks: 2. ULF waves in the foreshock and magnetosheath. Journal of Geophysical Research, 2006, 111, .	3.3	82
62	Global hybrid simulations of solar wind interaction with Mercury: Magnetosperic boundaries. Advances in Space Research, 2006, 38, 632-638.	2.6	21
63	ULF waves and their influence on bow shock and magnetosheath structures. Advances in Space Research, 2006, 37, 1522-1531.	2.6	18
64	Macrostructure of collisionless bow shocks: 1. Scale lengths. Journal of Geophysical Research, 2005, 110, .	3.3	70
65	How to make a magnetosphere. Astronomy and Geophysics, 2004, 45, 3.14-3.17.	0.2	18
66	Dipolar magnetospheres and their characterization as a function of magnetic moment. Advances in Space Research, 2004, 33, 1996-2003.	2.6	60
67	On the generation and structure of the quadrupole magnetic field in the reconnection process: Comparative simulation study. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	29
68	Hybrid simulations of solar wind interaction with magnetized asteroids: Comparison with Galileo observations near Gaspra and Ida. Journal of Geophysical Research, 2003, 108, .	3.3	41
69	Hybrid Simulation Codes: Past, Present and Futureâ€"A Tutorial. , 2003, , 136-165.		60
70	Hybrid simulations of solar wind interaction with magnetized asteroids: General characteristics. Journal of Geophysical Research, 2002, 107, SSH 12-1-SSH 12-10.	3.3	70
71	Two-dimensional structure of the co-planar and non-coplanar magnetopause during reconnection. Geophysical Research Letters, 1999, 26, 1235-1238.	4.0	23
72	A nonspecialist's guide to kinetic simulations of space plasmas. Journal of Geophysical Research, 1996, 101, 17287-17303.	3.3	77

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73	Characteristic speeds in high Î² isotropic/anisotropic plasmas. Physics of Plasmas, 1995, 2, 4177-4184.	1.9	14
74	Wave and ion evolution downstream of quasi-perpendicular bow shocks. Journal of Geophysical Research, 1995, 100, 3427-3437.	3.3	57
75	Large-scale hybrid simulations of the magnetotail during reconnection. Geophysical Research Letters, 1995, 22, 3271-3274.	4.0	103
76	Generation and nonlinear evolution of oblique magnetosonic waves: Application to foreshock and comets. Geophysical Monograph Series, 1994, , 71-84.	0.1	12
77	Ion scattering and acceleration by low frequency waves in the cometary environment. Geophysical Monograph Series, 1994, , 221-235.	0.1	9
78	Sources of magnetosheath waves and turbulence. Advances in Space Research, 1994, 14, 45-54.	2.6	31
79	Rotational discontinuities in anisotropic plasmas. Geophysical Research Letters, 1992, 19, 1335-1338.	4.0	17
80	The structure of a tangential discontinuity: Application to the cometary ionopause. Geophysical Research Letters, 1991, 18, 369-372.	4.0	9
81	Highly nonlinear magnetic pulses at comet Giacobiniâ€Zinner. Geophysical Research Letters, 1990, 17, 757-760.	4.0	29
82	Electromagnetic ion/ion cyclotron instability at slow shocks. Geophysical Research Letters, 1990, 17, 2297-2300.	4.0	27
83	Steepening of kinetic magnetosonic waves into shocklets: Simulations and consequences for planetary shocks and comets. Journal of Geophysical Research, 1990, 95, 2281-2300.	3.3	111
84	Reâ€forming supercritical quasiâ€parallel shocks: 1. Oneâ€and twoâ€dimensional simulations. Journal of Geophysical Research, 1990, 95, 18809-18819.	3.3	71
85	Reâ€forming supercritical quasiâ€parallel shocks: 2. Mechanism for wave generation and front reâ€formation. Journal of Geophysical Research, 1990, 95, 18821-18832.	3.3	84
86	Low Mach number parallel and quasiâ€parallel shocks. Journal of Geophysical Research, 1990, 95, 20717-20730.	3.3	37