

Nickolay Ivchenko

List of Publications by Year in descending order

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83
papers

1,482
citations

361045

20
h-index

360668

35
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97
all docs

97
docs citations

97
times ranked

1379
citing authors

#	ARTICLE	IF	CITATIONS
1	First results of electric field and density observations by Cluster EFW based on initial months of operation. <i>Annales Geophysicae</i> , 2001, 19, 1219-1240.	0.6	273
2	Temporal evolution of the electric field accelerating electrons away from the auroral ionosphere. <i>Nature</i> , 2001, 414, 724-727.	13.7	132
3	Europa's far ultraviolet oxygen aurora from a comprehensive set of HST observations. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 2143-2170.	0.8	54
4	Miniaturized digital fluxgate magnetometer for small spacecraft applications. <i>Measurement Science and Technology</i> , 2008, 19, 015202.	1.4	44
5	Electron signatures and Alfvén waves. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 15-1.	3.3	41
6	Morphology and dynamics of aurora at fine scale: first results from the ASK instrument. <i>Annales Geophysicae</i> , 2008, 26, 1041-1048.	0.6	37
7	Quasiperiodic oscillations observed at the edge of an auroral arc by auroral turbulence 2. <i>Geophysical Research Letters</i> , 1999, 26, 3365-3368.	1.5	36
8	Multiple-point electron measurements in a nightside auroral arc: Auroral turbulence II particle observations. <i>Geophysical Research Letters</i> , 1999, 26, 3361-3364.	1.5	34
9	Simultaneous imaging of aurora on small scale in OI (777.4 nm) and N^+_{II} to estimate energy and flux of precipitation. <i>Annales Geophysicae</i> , 2009, 27, 2881-2891.	0.6	31
10	Dynamic rayed aurora and enhanced ion-acoustic radar echoes. <i>Annales Geophysicae</i> , 2005, 23, 3-11.	0.6	30
11	Statistics of Joule heating in the auroral zone and polar cap using Astrid-2 satellite Poynting flux. <i>Annales Geophysicae</i> , 2004, 22, 4133-4142.	0.6	27
12	DETECTION OF A HYDROGEN CORONA IN HST Ly α IMAGES OF EUROPA IN TRANSIT OF JUPITER. <i>Astronomical Journal</i> , 2017, 153, 67.	1.9	27
13	Temporal and spatial evolution of discrete auroral arcs as seen by Cluster. <i>Annales Geophysicae</i> , 2005, 23, 2531-2557.	0.6	25
14	Lower-thermosphere-ionosphere (LTI) quantities: current status of measuring techniques and models. <i>Annales Geophysicae</i> , 2021, 39, 189-237.	0.6	25
15	Inhomogeneous transverse electric fields and wave generation in the auroral region: A statistical study. <i>Journal of Geophysical Research</i> , 2001, 106, 10803-10816.	3.3	24
16	Energy and flux variations across thin auroral arcs. <i>Annales Geophysicae</i> , 2011, 29, 1699-1712.	0.6	24
17	A sublimated water atmosphere on Ganymede detected from Hubble Space Telescope observations. <i>Nature Astronomy</i> , 2021, 5, 1043-1051.	4.2	24
18	Using multispectral optical observations to identify the acceleration mechanism responsible for flickering aurora. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	23

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19	On the equatorward phase propagation of high-m ULF pulsations observed by radars. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1677-1680.	0.6	20
20	F-region electron heating by X-mode radiowaves in underdense conditions. Annales Geophysicae, 2009, 27, 2585-2592.	0.6	20
21	Deployment of Bistable Self-Deployable Tape Spring Booms Using a Gravity Offloading System. Journal of Aerospace Engineering, 2017, 30, .	0.8	20
22	New constraints on Ganymede's hydrogen corona: Analysis of Lyman- $\hat{\pm}$ emissions observed by HST/STIS between 1998 and 2014. Planetary and Space Science, 2017, 148, 35-44.	0.9	20
23	Multispectral observations of auroral rays and curls. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	19
24	Optical Flow Analysis of the Aurora Borealis. IEEE Geoscience and Remote Sensing Letters, 2006, 3, 159-163.	1.4	19
25	First direct optical observations of plasma flows using afterglow of in discrete aurora. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 228-238.	0.6	19
26	Rise and fall of electron temperatures: Ohmic heating of ionospheric electrons from underdense HF radio wave pumping. Journal of Geophysical Research, 2010, 115, .	3.3	19
27	Constraints on an exosphere at Ceres from Hubble Space Telescope observations. Geophysical Research Letters, 2016, 43, 2465-2472.	1.5	19
28	A statistical study of the magnetosphere boundary crossings by the Geotail satellite. Geophysical Research Letters, 2000, 27, 2881-2884.	1.5	17
29	Small-scale structures in flickering aurora. Geophysical Research Letters, 2008, 35, .	1.5	16
30	An attempt to detect transient changes in SO_2 and NaCl atmosphere. Icarus, 2020, 350, 113925.	1.1	16
31	Modelling of N_2 and O_2 IP emission rates in aurora using various cross sections for excitation. Annales Geophysicae, 2009, 27, 2545-2553.	0.6	15
32	Electron Energization by Alfvén Waves: Freja and Sounding Rocket Observations. Physica Scripta, 2000, T84, 151.	1.2	14
33	Simultaneous observations of small multi-scale structures in an auroral arc. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 633-637.	0.6	14
34	Digital fluxgate magnetometer: design notes. Measurement Science and Technology, 2015, 26, 125901.	1.4	14
35	Detection of a hydrogen corona at Callisto. Journal of Geophysical Research E: Planets, 2017, 122, 1046-1055.	1.5	14
36	Compound auroral micromorphology: ground-based high-speed imaging. Earth, Planets and Space, 2015, 67, 23.	0.9	13

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37	Patch Size Evolution During Pulsating Aurora. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4725-4738.	0.8	13
38	The MATS satellite mission " gravity wave studies by Mesospheric Airglow/Aerosol Tomography and Spectroscopy. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 431-455.	1.9	13
39	Observation of low frequency electromagnetic activity at 1000 km altitude. <i>Annales Geophysicae</i> , 2001, 19, 643-648.	0.6	12
40	Non-Maxwellian electron energy probability functions in the plume of a SPT-100 Hall thruster. <i>Plasma Sources Science and Technology</i> , 2018, 27, 015006.	1.3	12
41	Disturbance of plasma environment in the vicinity of the Astrid-2 microsatellite. <i>Annales Geophysicae</i> , 2001, 19, 655-666.	0.6	12
42	Coexisting structures from high- and low-energy precipitation in fine-scale aurora. <i>Geophysical Research Letters</i> , 2015, 42, 1290-1296.	1.5	11
43	Rotational temperature of N^+_{2} ions from spectrographic measurements used to infer the energy of precipitation in different auroral forms and compared with radar measurements. <i>Annales Geophysicae</i> , 2008, 26, 853-866.	0.6	10
44	Enhanced EISCAT UHF backscatter during high-energy auroral electron precipitation. <i>Annales Geophysicae</i> , 2013, 31, 1681-1687.	0.6	10
45	Electrodynamics and energy characteristics of aurora at high resolution by optical methods. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 5966-5974.	0.8	10
46	Variations in energy, flux, and brightness of pulsating aurora measured at high time resolution. <i>Annales Geophysicae</i> , 2017, 35, 493-503.	0.6	10
47	An Analysis of the Statistics and Systematics of Limb Anomaly Detections in HST/STIS Transit Images of Europa. <i>Astronomical Journal</i> , 2020, 159, 155.	1.9	10
48	Multipoint measurements of large DC electric fields and shears in the auroral zone. <i>Geophysical Research Letters</i> , 1999, 26, 3369-3372.	1.5	9
49	Using spectral characteristics to interpret auroral imaging in the 731.9 nm O^+_{2} line. <i>Annales Geophysicae</i> , 2008, 26, 1905-1917.	0.6	8
50	EMMA - the Electric and Magnetic Monitor of the Aurora on Astrid-2. <i>Annales Geophysicae</i> , 2004, 22, 115-123.	0.6	7
51	Resonance scattering by auroral N^+_{2} : steady state theory and observations from Svalbard. <i>Annales Geophysicae</i> , 2009, 27, 3465-3478.	0.6	7
52	Dynamics and characteristics of black aurora as observed by high-resolution ground-based imagers and radar. <i>International Journal of Remote Sensing</i> , 2011, 32, 2973-2985.	1.3	7
53	Monoenergetic high-energy electron precipitation in thin auroral filaments. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	7
54	On the relation of Langmuir turbulence radar signatures to auroral conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 8499-8511.	0.8	7

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55	An optical study of multiple NEIAL events driven by low energy electron precipitation. <i>Annales Geophysicae</i> , 2008, 26, 2435-2447.	0.6	6
56	RELATIVE BRIGHTNESS OF THE O ⁺ (²<i>D</i>-²<i>P</i>) DOUBLETS IN LOW-ENERGY AURORAE. <i>Astrophysical Journal</i> , 2014, 797, 64.	1.6	6
57	Collisionless electron cooling in a plasma thruster plume: experimental validation of a kinetic model. <i>Plasma Sources Science and Technology</i> , 2020, 29, 035029.	1.3	6
58	Observation of O ⁺ (⁴<i>P</i>-⁴<i>D</i>⁰) lines in electron aurora over Svalbard. <i>Annales Geophysicae</i> , 2004, 22, 2805-2817.	0.6	5
59	Observation of O ⁺ 4P-4D lines in proton aurora over Svalbard. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	5
60	Phase calibration of the EISCAT Svalbard Radar interferometer using optical satellite signatures. <i>Annales Geophysicae</i> , 2006, 24, 2419-2427.	0.6	5
61	SELMA mission: How do airless bodies interact with space environment? The Moon as an accessible laboratory. <i>Planetary and Space Science</i> , 2018, 156, 23-40.	0.9	5
62	Multi-Point Measurements of the Plasma Properties Inside an Aurora From the SPIDER Sounding Rocket. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029204.	0.8	5
63	Auroral ion acoustic wave enhancement observed with a radar interferometer system. <i>Annales Geophysicae</i> , 2015, 33, 837-844.	0.6	4
64	â€œCurrent singularitiesâ€ observed on Astrid-2. <i>Advances in Space Research</i> , 2002, 30, 1779-1782.	1.2	3
65	Separating and quantifying ionospheric responses to proton and electron precipitation over Svalbard. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	3
66	Radar interferometer calibration of the EISCAT Svalbard Radar and a additional receiver station. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2013, 105-106, 287-292.	0.6	3
67	Technical Note: A novel rocket-based in situ collection technique for mesospheric and stratospheric aerosol particles. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 777-785.	1.2	3
68	Relation of anomalous F ⁺ region radar echoes in the high-latitude ionosphere to auroral precipitation. <i>Annales Geophysicae</i> , 2017, 35, 475-479.	0.6	3
69	Horizontal electric fields from flow of auroral O ⁺ (²<i>P</i>) ions at sub-second temporal resolution. <i>Annales Geophysicae</i> , 2020, 38, 845-859.	0.6	3
70	Fine-scale dynamics of fragmented aurora-like emissions. <i>Annales Geophysicae</i> , 2021, 39, 975-989.	0.6	3
71	Magnetospheric response to the solar wind as indicated by the cross-polar potential drop and the low-latitude asymmetric disturbance field. <i>Annales Geophysicae</i> , 2001, 19, 649-653.	0.6	2
72	Plasma line observations from the EISCAT Svalbard Radar during the International Polar Year. <i>Annales Geophysicae</i> , 2017, 35, 1143-1149.	0.6	2

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73	Effect of second harmonic in pulse-width-modulation-based DAC for feedback of digital fluxgate magnetometer. <i>Measurement Science and Technology</i> , 2018, 29, 045008.	1.4	2
74	Photocurrent modelling and experimental confirmation for meteoric smoke particle detectors on board atmospheric sounding rockets. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 5299-5314.	1.2	2
75	Variability of Io's poynting flux: A parameter study using MHD simulations. <i>Planetary and Space Science</i> , 2020, 192, 105058.	0.9	2
76	Characterisation of the analogue read-out chain for the CCDs onboard the mesospheric airglow/aerosol tomography and spectroscopy (MATS). , 2018, , .		2
77	Generation mechanisms of the ELF-ULF waves related to the flux transfer events. <i>Advances in Space Research</i> , 1997, 19, 1933-1937.	1.2	1
78	Observations of HF-induced instability in the auroral E region. <i>Annales Geophysicae</i> , 2013, 31, 1103-1108.	0.6	1
79	Small Explorer for Advanced Missions (SEAM), a CCSDS compatible CubeSat supported on a global commercial ground network. , 2016, , .		1
80	Post-flight trajectory reconstruction of suborbital free-flyers using GPS raw data. <i>Journal of Geodetic Science</i> , 2017, 7, .	0.5	1
81	On the relationship of energetic particle precipitation and mesopause temperature. <i>Annales Geophysicae</i> , 2021, 39, 795-809.	0.6	1
82	Inertial Alfvén waves in the ionosphere: theoretical considerations and experimental constraints. <i>AIP Conference Proceedings</i> , 2000, , .	0.3	0
83	Project "Development of the Methodology of Experiment and Technical Support for Studies of the Flow Cyclotron Maser in the Earth's Magnetosphere by Creating an Artificial Ionization Cloud From a Geophysical Rocket". <i>Optica Pura Y Aplicada</i> , 2012, 45, 45-49.	0.0	0