

Evgeny A Mareev

List of Publications by Citations

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104 papers	1,175 citations	20 h-index	29 g-index
111 ext. papers	1,378 ext. citations	2.5 avg, IF	4.5 L-index

#	Paper	IF	Citations
104	An Overview of Earth's Global Electric Circuit and Atmospheric Conductivity. <i>Space Science Reviews</i> , 2008 , 137, 83-105	7.5	163
103	Are lightning M components capable of initiating sprites and sprite halos?. <i>Journal of Geophysical Research</i> , 2007 , 112,		49
102	Pan-Eurasian Experiment (PEEX): towards a holistic understanding of the feedbacks and interactions in the land-atmosphere-ocean-biosphere continuum in the northern Eurasian region. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 14421-14461	6.8	43
101	A global atmospheric electricity monitoring network for climate and geophysical research. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2019 , 184, 18-29	2	38
100	On the calculation of electric fields and currents of mesoscale convective systems. <i>Journal of Geophysical Research</i> , 2004 , 109,		32
99	Theoretical models of the height of the atmospheric boundary layer and turbulent entrainment at its upper boundary. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2012 , 48, 133-142	1	31
98	Universal spectra of electric field pulsations in the atmosphere. <i>Geophysical Research Letters</i> , 2002 , 29, 70-1-70-4	4.9	30
97	Abrupt Elongation (Stepping) of Negative and Positive Leaders Culminating in an Intense Corona Streamer Burst: Observations in Long Sparks and Implications for Lightning. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 5360-5375	4.4	29
96	Variation of the global electric circuit and Ionospheric potential in a general circulation model. <i>Geophysical Research Letters</i> , 2014 , 41, 9009-9016	4.9	29
95	Global transients in ultraviolet and red-infrared ranges from data of Universitetsky-Tatiana-2 satellite. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 370-379	4.4	29
94	Computer simulations on sprite initiation for realistic lightning models with higher-frequency surges. <i>Journal of Geophysical Research</i> , 2009 , 114, n/a-n/a		29
93	On the role of transient currents in the global electric circuit. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	29
92	Investigations of the space environment aboard the Universitetsky-Tatiana and Universitetsky-Tatiana-2 microsatellites. <i>Solar System Research</i> , 2011 , 45, 3-29	0.8	28
91	Geophysical studies of the global electric circuit. <i>Izvestiya, Physics of the Solid Earth</i> , 2008 , 44, 760-769	1	25
90	On the generation and evolution of electrostatic structures in the surface layer. <i>Journal of Geophysical Research</i> , 1999 , 104, 14359-14367		25
89	Electrodynamic properties and height of atmospheric convective boundary layer. <i>Atmospheric Research</i> , 2017 , 194, 119-129	5.4	23
88	Advanced numerical model of lightning development: Application to studying the role of LPCR in determining lightning type. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 6416-6430	4.4	23

87	Types of lightning discharges that abruptly terminate enhanced fluxes of energetic radiation and particles observed at ground level. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 7582-7599	4.4	21
86	On the variation of the ionospheric potential due to large-scale radioactivity enhancement and solar activity. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 7060-7082	2.6	21
85	Stationary and nonstationary models of the global electric circuit: Well-posedness, analytical relations, and numerical implementation. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2014 , 50, 314-322	1	20
84	On the electrodynamic characteristics of the fog. <i>Atmospheric Research</i> , 2005 , 76, 16-28	5.4	20
83	Observation of a new class of electric discharges within artificial clouds of charged water droplets and its implication for lightning initiation within thunderclouds. <i>Geophysical Research Letters</i> , 2015 , 42, 8165-8171	4.9	19
82	Observations of the connection of positive and negative leaders in meter-scale electric discharges generated by clouds of negatively charged water droplets. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 9756-9766	4.4	17
81	Atmospheric ultraviolet and red-infrared flashes from Universitetsky-Tatiana-2 satellite data. <i>Journal of Experimental and Theoretical Physics</i> , 2011 , 113, 781-790	1	17
80	Transmission of waves near the lower oblique resonance using dipoles in the ionosphere. <i>Radio Science</i> , 2003 , 38, n/a-n/a	1.4	16
79	Plasma density-electric field turbulence in the low-latitude ionosphere from the observation on satellites; possible connection with seismicity. <i>Physics and Chemistry of the Earth</i> , 2004 , 29, 569-577	3	15
78	Simulation of the impact of thunderstorm activity on atmospheric gas composition. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2010 , 46, 451-467	1	14
77	PAN EURASIAN EXPERIMENT (PEEX) - A RESEARCH INITIATIVE MEETING THE GRAND CHALLENGES OF THE CHANGING ENVIRONMENT OF THE NORTHERN PAN-EURASIAN ARCTIC-BOREAL AREAS. <i>Geography, Environment, Sustainability</i> , 2014 , 7, 13-48	1	14
76	The role of turbulence in thunderstorm, snowstorm, and dust storm electrification. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 6976-6988	4.4	13
75	Calculation of the Lightning Potential Index and electric field in numerical weather prediction models. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2015 , 51, 186-192	1	12
74	Influence of Large-Scale Conductivity Inhomogeneities in the Atmosphere on the Global Electric Circuit. <i>Journals of the Atmospheric Sciences</i> , 2014 , 71, 4382-4396	2.1	12
73	Spatiotemporal structures of electric field and space charge in the surface atmospheric layer. <i>Journal of Geophysical Research</i> , 1994 , 99, 10603		12
72	Cellular automaton modeling of mesospheric optical emissions: Sprites. <i>Physics of Plasmas</i> , 2007 , 14, 042902	2.1	11
71	A model of sprite influence on the chemical balance of mesosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2013 , 102, 298-310	2	10
70	Global electric circuit research: achievements and prospects. <i>Uspekhi Fizicheskikh Nauk</i> , 2010 , 180, 527	0.5	10

69	Infrared images of bidirectional leaders produced by the cloud of charged water droplets. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 10,728-10,735	4.4	9
68	Lifetime of the thunderstorm electric energy in the global atmospheric circuit and thunderstorm energy characteristics. <i>Atmospheric Research</i> , 2009 , 91, 161-164	5.4	9
67	Formation of Charge Layers in the Planetary Atmospheres. <i>Space Science Reviews</i> , 2008 , 137, 373-397	7.5	9
66	Excitation of plasma resonance in a magnetoactive plasma by an external source I. A source in a homogeneous plasma. <i>Radiophysics and Quantum Electronics</i> , 1987 , 30, 713-718	0.7	9
65	Toward a Realistic Representation of Global Electric Circuit Generators in Models of Atmospheric Dynamics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2019JD032130	4.4	9
64	Thunderstorm neutrons in near space: Analyses and numerical simulation. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		8
63	On the generation of charge layers in MCS stratiform regions. <i>Atmospheric Research</i> , 2009 , 91, 272-280	5.4	8
62	Modeling Contributions of Continents and Oceans to the Diurnal Variation of the Global Electric Circuit. <i>Geophysical Research Letters</i> , 2019 , 46, 5516-5525	4.9	7
61	Extensive layer clouds in the global electric circuit: their effects on vertical charge distribution and storage. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020 , 476, 20190758	2.4	7
60	Aeroelectric structures and turbulence in the atmospheric boundary layer. <i>Nonlinear Processes in Geophysics</i> , 2013 , 20, 819-824	2.9	7
59	Transient luminous event phenomena and energetic particles impacting the upper atmosphere: Russian space experiment programs. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		7
58	On spatial structures formation in dusty plasmas. <i>Physics of Plasmas</i> , 1998 , 5, 1563-1565	2.1	7
57	High-Speed Optical Imaging of Lightning and Sparks: Some Recent Results. <i>IEEJ Transactions on Power and Energy</i> , 2018 , 138, 321-326	0.2	7
56	On Statistical Characteristics of Electric Fields of the Thunderstorm Clouds in the Atmosphere. <i>Radiophysics and Quantum Electronics</i> , 2014 , 56, 778-787	0.7	6
55	Simulation of mesospheric-composition disturbances under the action of high-altitude discharges (sprites). <i>Radiophysics and Quantum Electronics</i> , 2011 , 54, 111-127	0.7	6
54	Modeling of the Electric-Field Dynamics in the Atmosphere Using the Test-Structure Method. <i>Radiophysics and Quantum Electronics</i> , 2005 , 48, 575-586	0.7	6
53	Mechanisms for the Formation of Electric-Field Pulsation Spectra in the Near-Surface Atmosphere. <i>Radiophysics and Quantum Electronics</i> , 2001 , 44, 520-532	0.7	6
52	Modeling the influence of methane emissions from arctic gas hydrates on regional variations in composition of the lower atmosphere. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2015 , 51, 412-422	1	5

- 51 On conditions of initiation of electric discharges in the middle atmosphere. *Izvestiya - Atmospheric and Oceanic Physics*, **2010**, 46, 69-75 1 5
- 50 Experiment based on spacesuit Drlan-M Neutron fluxes from thunderstorms. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a 5
- 49 Studies of an artificially generated electrode effect at ground level. *Annales Geophysicae*, **1996**, 14, 1095-1101 5
- 48 Nanosecond Electromagnetic Pulses Generated by Electric Discharges: Observation With Clouds of Charged Water Droplets and Implications for Lightning. *Geophysical Research Letters*, **2021**, 48, e2020GL092108 4.9 5
- 47 Experimental Study of Diurnal and Seasonal Variations in the Atmospheric Electric Field. *Radiophysics and Quantum Electronics*, **2019**, 62, 183-191 0.7 4
- 46 The representation of ionospheric potential in the global chemistry-climate model SOCOL. *Science of the Total Environment*, **2019**, 697, 134172 10.2 4
- 45 On the Contribution of Turbulence to the Electrification of Thunderclouds. *Izvestiya - Atmospheric and Oceanic Physics*, **2018**, 54, 25-31 1 4
- 44 Simulating indirect effects that thunderstorm activity has on atmospheric temperature. *Izvestiya - Atmospheric and Oceanic Physics*, **2013**, 49, 504-518 1 4
- 43 Modeling of lightning generated electric field transitional processes. *Geophysical Research Letters*, **2000**, 27, 3833-3836 4.9 4
- 42 On the electric dynamo problem. *Radiophysics and Quantum Electronics*, **1996**, 39, 527-538 0.7 4
- 41 Characteristic Features of the Clouds Producing Thunderstorm Ground Enhancements. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2019JD030895 4.4 4
- 40 Russian studies of atmospheric electricity in 2011-2014. *Izvestiya - Atmospheric and Oceanic Physics*, **2016**, 52, 154-164 1 4
- 39 Experimental Investigation of the Streamer Zone of Long-Spark Positive Leader Using High-Speed Photography and Microwave Probing. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD031826 4.4 3
- 38 Statistical Distributions of Lightning Peak Currents: Why Do They Appear to Be Lognormal?. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 5070-5089 4.4 3
- 37 Anomalous Decimeter Radio Noise from the Region of the Atmospheric Front: I. Characteristics of the Detected Radio Noise and Meteorological Parameters of the Frontal Cloudiness. *Izvestiya - Atmospheric and Oceanic Physics*, **2018**, 54, 147-153 1 3
- 36 Electrodynamics of a convective cloud. *Radiophysics and Quantum Electronics*, **1997**, 40, 77-86 0.7 3
- 35 Physical processes responsible for the nonlinearities of probe characteristics and their implications in space plasma measurements. *Radio Science*, **2001**, 36, 1083-1091 1.4 3
- 34 Studies of an artificially generated electrode effect at ground level. *Annales Geophysicae*, **1996**, 14, 1095-1101 5 3

33	A new link between El Niño Southern Oscillation and atmospheric electricity. <i>Environmental Research Letters</i> , 2021 , 16, 044025	6.2	3
32	A physical basis for designing integrated acoustic network systems for underwater observations. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2016 , 80, 1229-1236	0.4	3
31	Thunderstorm generators operating as voltage sources in global electric circuit models. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2019 , 183, 99-109	2	3
30	Simulation of High-Altitude Discharges in a Large Plasma Facility. <i>Geomagnetism and Aeronomy</i> , 2020 , 60, 345-354	0.9	2
29	Comment on "Charge transfer to the ionosphere and to the ground during thunderstorms" by S. A. Mallios and V. P. Pasko. <i>Journal of Geophysical Research: Space Physics</i> , 2014 , 119, 2359-2362	2.6	2
28	Peculiarities of the disturbance in the mesosphere composition and optical emissions caused by high-altitude discharges. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2013 , 49, 530-540	1	2
27	Energetic Particles Impacting the Upper Atmosphere in Connection with Transient Luminous Event Phenomena: Russian Space Experiment Programs 2009 ,		2
26	Generating electric-discharge layers in mesoscale convective systems. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2009 , 45, 242-252	1	2
25	Russian studies in the field of atmospheric electricity in 2003-2007. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2009 , 45, 663-673	1	2
24	An upward connecting leader at tests of large-scale lightning-rod models 2011 ,		2
23	Autowave Regimes of Thundercloud Electrification. <i>Radiophysics and Quantum Electronics</i> , 2001 , 44, 137-150	1.5	2
22	Instability in the oscillations of a moving oscillator while it radiates surface and internal waves. <i>Fluid Dynamics</i> , 1986 , 21, 147-149	0.7	2
21	Radio wave scattering by artificial quasiperiodic irregularities in the ionosphere. <i>Radiophysics and Quantum Electronics</i> , 1987 , 30, 631-634	0.7	2
20	Meteorological Characteristics of Energetic Atmospheric Phenomena. <i>Physics of Particles and Nuclei Letters</i> , 2020 , 17, 840-847	0.5	2
19	Comment on "Measurement of the Electrical Properties of a Thundercloud through Muon Imaging by the GRAPES-3 Experiment". <i>Physical Review Letters</i> , 2020 , 124, 019501	7.4	2
18	The global electric circuit land-ocean response to the El Niño Southern Oscillation. <i>Atmospheric Research</i> , 2021 , 260, 105626	5.4	2
17	Modeling of Electrical Parameters of Thunderstorms Including Turbulent Effects. <i>Radiophysics and Quantum Electronics</i> , 2019 , 61, 563-573	0.7	1
16	Forecast of Convective Events and Its Verification against Atmospheric Electricity Observations. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2020 , 56, 123-129	1	1

15	Anomalous Decimeter Radio Noise from the Region of the Atmospheric Front: II. On the Nonthermal Mechanism of UHF Noise. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2018 , 54, 380-385	1	1
14	Electric State of the Near-Surface Atmosphere according to the Results of Tethered Balloon Observations. <i>Doklady Earth Sciences</i> , 2018 , 481, 925-929	0.6	1
13	Comprehensive study of regional thunderstorm activity in a wide frequency range 2014 ,		1
12	Formation of Charge Layers in the Planetary Atmospheres. <i>Space Sciences Series of ISSI</i> , 2008 , 373-397	0.1	1
11	Effect of extremely low-frequency magnetic fields on light-induced electric reactions in wheat.. <i>Plant Signaling and Behavior</i> , 2022 , 2021664	2.5	1
10	Numerical simulation of high-current pulsed arc discharge in air. <i>Journal Physics D: Applied Physics</i> ,	3	1
9	Russian Studies of Atmospheric Electricity in 2015–2018. <i>Izvestiya - Atmospheric and Oceanic Physics</i> , 2019 , 55, 562-572	1	1
8	Electric Field Measurements in the Antarctic Reveal Patterns Related to the El Niño–Southern Oscillation. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL095389	4.9	0
7	Mechanisms of coupling of aeroelectric and temperature fields in the lower atmosphere. <i>Radiophysics and Quantum Electronics</i> , 2006 , 49, 31-46	0.7	
6	Plasma resonance excitation by external source in magnetically active plasma. II. Source in inhomogeneous plasma. <i>Radiophysics and Quantum Electronics</i> , 1987 , 30, 790-794	0.7	
5	Linear interaction of waves in a magnetoactive plasma when periodic inhomogeneities are present. <i>Radiophysics and Quantum Electronics</i> , 1984 , 27, 680-686	0.7	
4	Ground-based measurements of microwave brightness temperature and electric field fluctuations for clouds with a different level of electrical activity. <i>Atmospheric Research</i> , 2022 , 266, 105937	5.4	
3	CHARACTERISTICS OF ELECTRIC NOISES IN THE SURFACE ATMOSPHERIC LAYER. <i>Journal of Atmospheric Electricity</i> , 1991 , 10, 1-10	0.1	
2	Charge Distribution in a Cloud Assessed from the Energetic Particle Flux Measured under the Cloud. <i>Doklady Earth Sciences</i> , 2021 , 496, 171-175	0.6	
1	The Correlation of Temperature, Stratus Cloudiness, and Electric Field Strength in the Atmosphere. <i>Doklady Earth Sciences</i> , 2021 , 499, 595-598	0.6	