

Michael Rietveld

List of Publications by Year in descending order

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106
papers

2,440
citations

201575

27
h-index

223716

46
g-index

115
all docs

115
docs citations

115
times ranked

647
citing authors

#	ARTICLE	IF	CITATIONS
1	History of the Tromsø ionosphere heating facility. <i>History of Geo- and Space Sciences</i> , 2022, 13, 71-82.	0.1	2
2	Altitude descents in high-frequency enhanced plasma and ion lines during ionospheric heating at EISCAT. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2021, 212, 105425.	0.6	2
3	GLONASS Observation of Artificial Field-Aligned Plasma Irregularities Near Magnetic Zenith During EISCAT HF Experiment. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091673.	1.5	2
4	Conditions for Topside Ion Line Enhancements. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029379.	0.8	0
5	A New Technique for Investigating Dust Charging in the PMSE Source Region. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089639.	1.5	2
6	Excitation of Langmuir and Ion-Acoustic Turbulence in the High-Latitude Ionosphere by a High-Power HF Radio Wave Simultaneously Below and Above the F2-Layer Maximum. <i>Radiophysics and Quantum Electronics</i> , 2020, 62, 793-806.	0.1	2
7	Electron Temperature Inversion by Stimulated Brillouin Scattering During Electron Gyroharmonic Heating at EISCAT. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089747.	1.5	9
8	Total Electron Content Measurements in the Ionosphere Disturbed by High-Power High-Frequency Waves by the Methods of Incoherent Scattering of Radio Waves and Radio Sounding by Glonass Satellite Signal. <i>Radiophysics and Quantum Electronics</i> , 2020, 62, 667-676.	0.1	3
9	Electron heating by HF pumping of high-latitude ionospheric F-region plasma near magnetic zenith. <i>Annales Geophysicae</i> , 2020, 38, 297-307.	0.6	1
10	Ducting of incoherent scatter radar waves by field-aligned irregularities. <i>Annales Geophysicae</i> , 2020, 38, 1101-1113.	0.6	5
11	Outshifted Plasma Lines Observed in Heating Experiments in the High-Latitude Ionosphere at Pump Frequencies Near Electron Gyroharmonics. <i>Radiophysics and Quantum Electronics</i> , 2019, 61, 722-740.	0.1	6
12	The Intensities of High Frequency-Enhanced Plasma and Ion Lines During Ionospheric Heating. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 603-615.	0.8	0
13	Stimulated electromagnetic emissions spectrum observed during an X-mode heating experiment at the European Incoherent Scatter Scientific Association. <i>Earth and Planetary Physics</i> , 2019, 3, 391-399.	0.4	1
14	The Extending of Observing Altitudes of Plasma and Ion Lines During Ionospheric Heating. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 918-930.	0.8	4
15	Past, Present and Future of Active Radio Frequency Experiments in Space. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	62
16	First Observations of Recurring HF-Enhanced Topside Ion Line Spectra Near the Fourth Gyroharmonic. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8649-8663.	0.8	3
17	Systematic variation in observing altitude of enhanced ion line by the pump near fifth gyroharmonic. <i>Plasma Science and Technology</i> , 2018, 20, 125301.	0.7	0
18	Evidence of ω_{UH} -mode electromagnetic wave pumping of ionospheric plasma near geomagnetic zenith. <i>Annales Geophysicae</i> , 2018, 36, 243-251.	0.6	6

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19	Dusty Space Plasma Diagnosis Using the Behavior of Polar Mesospheric Summer Echoes During Electron Precipitation Events. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7697-7709.	0.8	5
20	The behavior of electron density and temperature during ionospheric heating near the fifth electron gyrofrequency. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 1277-1295.	0.8	11
21	Altitude and intensity characteristics of parametric instability excited by an HF pump wave near the fifth electron harmonic. <i>Plasma Science and Technology</i> , 2017, 19, 125303.	0.7	2
22	New capabilities of the upgraded EISCAT high-power HF facility. <i>Radio Science</i> , 2016, 51, 1533-1546.	0.8	66
23	Ionospheric electron number densities from CUTLASS dual-frequency velocity measurements using artificial backscatter over EISCAT. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8066-8076.	0.8	2
24	Modification of the High-Latitude Ionospheric F Region By High-Power HF Radio Waves at Frequencies Near the fifth and Sixth Electron Gyroharmonics. <i>Radiophysics and Quantum Electronics</i> , 2016, 58, 561-585.	0.1	22
25	Stimulated Brillouin scattering during electron gyro-harmonic heating at EISCAT. <i>Annales Geophysicae</i> , 2015, 33, 983-990.	0.6	20
26	A comparison of overshoot modelling with observations of polar mesospheric summer echoes at radar frequencies of 56 and 224 MHz. <i>Annales Geophysicae</i> , 2015, 33, 737-747.	0.6	10
27	First modulation of high-frequency polar mesospheric summer echoes by radio heating of the ionosphere. <i>Geophysical Research Letters</i> , 2014, 41, 5347-5353.	1.5	15
28	Aspect angle sensitivity of pump-induced optical emissions at EISCAT. <i>Earth, Planets and Space</i> , 2014, 66, .	0.9	12
29	Direct measurement of lower thermospheric neutral density using multifrequency incoherent scattering. <i>Geophysical Research Letters</i> , 2014, 41, 8147-8154.	1.5	9
30	Phenomena in the High-Latitude Ionospheric F Region Induced by a HF Heater Wave at Frequencies Near the Fourth Electron Gyroharmonic. <i>Radiophysics and Quantum Electronics</i> , 2014, 57, 1-19.	0.1	26
31	Physical mechanisms associated with long-range propagation of the signals from ionospheric heating experiments. <i>Radio Science</i> , 2014, 49, 987-995.	0.8	2
32	Dependence of the Pc4 magnetic pulsation parameters on the radiated power of the EISCAT HF heating facility. <i>Geomagnetism and Aeronomy</i> , 2013, 53, 32-42.	0.2	0
33	Radio-induced incoherent scatter ion line enhancements with wide altitude extents in the high-latitude ionosphere. <i>Geophysical Research Letters</i> , 2013, 40, 1669-1674.	1.5	16
34	The thresholds of ionospheric plasma instabilities pumped by high-frequency radio waves at EISCAT. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7472-7481.	0.8	27
35	A comparison between resonant and nonresonant heating at EISCAT. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6766-6776.	0.8	9
36	Observations of HF-induced instability in the auroral E region. <i>Annales Geophysicae</i> , 2013, 31, 1103-1108.	0.6	1

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37	The dependence of F ₂ -region electron heating on HF radio pump power: Measurements at EISCAT Tromsø, Journal of Geophysical Research, 2012, 117, .	3.3	4
38	Cavitating Langmuir Turbulence in the Terrestrial Aurora. Physical Review Letters, 2012, 108, 105003.	2.9	28
39	Angular dependence of pump-induced bottomside and topside ionospheric plasma turbulence at EISCAT. Journal of Geophysical Research, 2011, 116, .	3.3	6
40	Artificial small-scale field-aligned irregularities in the high latitude F region of the ionosphere induced by an X-mode HF heater wave. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	48
41	Characteristics of Pc4-5 pulsations obtained using the method of bistatic backscatter of HF radio waves, the EISCAT HF heating facility, and ground-based magnetometers. Geomagnetism and Aeronomy, 2011, 51, 620-632.	0.2	1
42	Results of Russian experiments dealing with the impact of powerful HF radiowaves on the high-latitude ionosphere using the EISCAT facilities. Geomagnetism and Aeronomy, 2011, 51, 1109-1120.	0.2	7
43	The effects of modification of a high-latitude ionosphere by high-power HF radio waves. Part 1. Results of multi-instrument ground-based observations. Radiophysics and Quantum Electronics, 2011, 53, 512-531.	0.1	14
44	Modification of the high-latitude ionosphere by high-power hf radio waves. 2. Results of coordinated satellite and ground-based observations. Radiophysics and Quantum Electronics, 2011, 54, 89-101.	0.1	5
45	Diagnosing radio plasma heating in the polar summer mesosphere using cross modulation: Theory and observations. Journal of Geophysical Research, 2010, 115, .	3.3	19
46	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
47	Remote Oxygen Sensing by Ionospheric Excitation (ROSIE). Annales Geophysicae, 2009, 27, 2183-2189.	0.6	20
48	Phenomena induced by powerful HF pumping towards magnetic zenith with a frequency near the F-region critical frequency and the third electron gyro harmonic frequency. Annales Geophysicae, 2009, 27, 131-145.	0.6	18
49	F-region electron heating by X-mode radiowaves in underdense conditions. Annales Geophysicae, 2009, 27, 2585-2592.	0.6	20
50	Electromagnetic and plasma perturbations induced by radio emission of the EISCAT high-frequency heating facility in the outer ionosphere of the earth. Radiophysics and Quantum Electronics, 2008, 51, 834-841.	0.1	3
51	Polar mesosphere summer echoes (PMSE) studied at Bragg wavelengths of 2.8m, 67cm, and 16cm. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 947-961.	0.6	58
52	Determining the ionospheric irregularity velocity vector based on doppler measurements in the artificially modified F ₂ region of the polar ionosphere. Geomagnetism and Aeronomy, 2007, 47, 76-84.	0.2	2
53	Some distinctive features in the behavior of small-scale artificial ionospheric irregularities at mid-and high latitudes. Radiophysics and Quantum Electronics, 2007, 50, 619-632.	0.1	8
54	Electron Gyroharmonic Effects in Ionization and Electron Acceleration during High-Frequency Pumping in the Ionosphere. Physical Review Letters, 2006, 97, 195002.	2.9	42

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55	Effects of high-latitude atmospheric gravity wave disturbances on artificial HF radar backscatter. <i>Annales Geophysicae</i> , 2006, 24, 2347-2361.	0.6	9
56	Directional features of the downshifted peak observed in HF-induced stimulated electromagnetic emission spectra obtained using an interferometer. <i>Annales Geophysicae</i> , 2006, 24, 1819-1827.	0.6	14
57	Phenomena in the ionosphere-magnetosphere system induced by injection of powerful HF radio waves into nightside auroral ionosphere. <i>Annales Geophysicae</i> , 2005, 23, 87-100.	0.6	12
58	Comparison of EISCAT and ionosonde electron densities: application to a ground-based ionospheric segment of a space weather programme. <i>Annales Geophysicae</i> , 2005, 23, 183-189.	0.6	10
59	The electron energy distribution during HF pumping, a picture painted with all colors. <i>Annales Geophysicae</i> , 2005, 23, 1747-1754.	0.6	52
60	Range imaging observations of PMSE using the EISCAT VHF radar: Phase calibration and first results. <i>Annales Geophysicae</i> , 2005, 23, 207-220.	0.6	10
61	Multi-frequency HF radar measurements of artificial F-region field-aligned irregularities. <i>Annales Geophysicae</i> , 2004, 22, 3503-3511.	0.6	20
62	Ionospheric electron heating, optical emissions, and striations induced by powerful HF radio waves at high latitudes: Aspect angle dependence. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	161
63	First observations of the PMSE overshoot effect and its use for investigating the conditions in the summer mesosphere. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	1.5	60
64	High-latitude pump-induced optical emissions for frequencies close to the third electron gyro-harmonic. <i>Geophysical Research Letters</i> , 2002, 29, 27-1-27-4.	1.5	59
65	Doppler shift simulation of scattered HF signals during the TromsÅ, HF pumping experiment on 16 February 1996. <i>Annales Geophysicae</i> , 2002, 20, 1479-1486.	0.6	14
66	High-latitude ground-based observations of the thermospheric ion-drag time constant. <i>Geophysical Research Letters</i> , 2001, 28, 1395-1398.	1.5	28
67	First tomographic estimate of volume distribution of HF-pump enhanced airglow emission. <i>Journal of Geophysical Research</i> , 2001, 106, 29105-29123.	3.3	65
68	Title is missing!. <i>Radiophysics and Quantum Electronics</i> , 2001, 44, 751-762.	0.1	2
69	Comparison of the orientation of small-scale electron density irregularities and F region plasma flow direction. <i>Annales Geophysicae</i> , 2000, 18, 918-926.	0.6	8
70	Measurements of HF-enhanced plasma and ion lines at EISCAT with high-altitude resolution. <i>Journal of Geophysical Research</i> , 2000, 105, 7429-7439.	3.3	62
71	High-latitude HF-induced airglow displaced equatorwards of the pump beam. <i>Geophysical Research Letters</i> , 2000, 27, 2817-2820.	1.5	66
72	FAST observations of ULF waves injected into the magnetosphere by means of modulated RF heating of the auroral electrojet. <i>Geophysical Research Letters</i> , 2000, 27, 3165-3168.	1.5	35

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73	First artificially induced modulation of PMSE using the EISCAT Heating Facility. <i>Geophysical Research Letters</i> , 2000, 27, 3801-3804.	1.5	85
74	A search for the location of the HF excitation of enhanced ion acoustic and langmuir waves with eiscat and the tromsÅ, heater. <i>Radiophysics and Quantum Electronics</i> , 1999, 42, 533-543.	0.1	15
75	ELF wave generation in the ionosphere using pulse modulated HF heating: initial tests of a technique for increasing ELF wave generation efficiency. <i>Annales Geophysicae</i> , 1999, 17, 759-769.	0.6	12
76	<i>>Letter to the Editor</i></i>: First direct observations of the reduced striations at pump frequencies close to the electron gyroharmonics. <i>Annales Geophysicae</i> , 1999, 17, 1235-1238.	0.6	9
77	Cavitating Langmuir Turbulence Observed during High-Latitude Ionospheric Wave Interaction Experiments. <i>Physical Review Letters</i> , 1999, 83, 2576-2579.	2.9	32
78	Phenomena observed by HF long-distance diagnostic tools in the HF modified auroral ionosphere during magnetospheric substorm. <i>Radio Science</i> , 1999, 34, 715-724.	0.8	10
79	Unambiguous evidence of HF pump-enhanced airglow at auroral latitudes. <i>Geophysical Research Letters</i> , 1999, 26, 3561-3564.	1.5	41
80	First direct observations of the reduced striations at pump frequencies close to the electron gyroharmonics. <i>Annales Geophysicae</i> , 1999, 17, 1235.	0.6	18
81	Spatial structure of auroral day-time ionospheric electron density irregularities generated by a powerful HF-wave. <i>Annales Geophysicae</i> , 1998, 16, 812-820.	0.6	13
82	Plasma drift estimates from the Dynasonde: comparison with EISCAT measurements. <i>Annales Geophysicae</i> , 1998, 16, 1138-1143.	0.6	19
83	Geophysical phenomena during an ionospheric modification experiment at TromsÅ, Norway. <i>Annales Geophysicae</i> , 1998, 16, 1212-1225.	0.6	24
84	Mesospheric observations with the EISCAT UHF radar during polar cap absorption events: 3. Comparison with simultaneous EISCAT VHF measurements. <i>Annales Geophysicae</i> , 1998, 16, 1355-1366.	0.6	5
85	Stimulated emissions around second harmonic of TromsÅ, heater frequency observed by long-distance diagnostic HF tools. <i>Geophysical Research Letters</i> , 1998, 25, 873-876.	1.5	14
86	Enhanced ELF wave generation efficiency using â€˜Oâ€™ Mode HF heating of the ionosphere: An instrumental explanation. <i>Geophysical Research Letters</i> , 1998, 25, 3489-3492.	1.5	0
87	Enhanced ELF wave generation efficiency using â€˜O' mode HF heating. <i>Geophysical Research Letters</i> , 1997, 24, 1403-1406.	1.5	3
88	Spatial observations by the CUTLASS coherent scatter radar of ionospheric modification by high power radio waves. <i>Annales Geophysicae</i> , 1997, 15, 1412-1421.	0.6	27
89	Altitude characteristics of plasma turbulence excited with the TromsÅ, Superheater. <i>Journal of Geophysical Research</i> , 1994, 99, 333.	3.3	36
90	Collaborative experiments by Akebono satellite, TromsÅ, ionospheric heater, and European incoherent scatter radar. <i>Radio Science</i> , 1994, 29, 23-37.	0.8	26

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91	Langmuir turbulence and ionospheric modification. Journal of Geophysical Research, 1992, 97, 6285-6297.	3.3	124
92	Turbulence scattering layers in the middleâ€m mesosphere observed by the EISCAT 224â€m MHz radar. Radio Science, 1992, 27, 97-107.	0.8	19
93	Eiscat radar observations of enhanced incoherent scatter spectra; Their relation to red aurora and fieldâ€m aligned currents. Geophysical Research Letters, 1991, 18, 1031-1034.	1.5	73
94	Polar mesosphere summer echoes observed with the EISCAT 933â€m MHz radar and the CUPRI 46.9â€m MHz radar, their similarity to 224â€m MHz radar echoes, and their relation to turbulence and electron density profiles. Radio Science, 1990, 25, 671-687.	0.8	100
95	Stimulated electromagnetic emission near electron cyclotron harmonics in the ionosphere. Physical Review Letters, 1989, 63, 1145-1147.	2.9	114
96	On the frequency dependence of ELF/VLF waves produced by modulated ionospheric heating. Radio Science, 1989, 24, 270-278.	0.8	61
97	Ionospheric heater beam scanning: A realistic model of this mobile source of ELF/VLF radiation. Radio Science, 1988, 23, 379-388.	0.8	19
98	Simultaneous bistatic European Incoherent Scatter UHF, 145â€m MHz radar and stimulated electromagnetic emission observations during HF ionospheric modification. Radio Science, 1988, 23, 809-819.	0.8	24
99	Ionospheric heater beam scanning: A mobile source of ELF radiation. Radio Science, 1987, 22, 1073-1083.	0.8	30
100	Ionospheric demodulation of powerful pulsed radio waves: A potential new diagnostic for radars suggested by TromsÃ, heater results. Radio Science, 1987, 22, 1084-1090.	0.8	11
101	Extra-low-frequency radiation from the polar electrojet antenna. Nature, 1985, 317, 155-157.	13.7	29
102	Ground and in situ excitation of waves in the ionospheric plasma. Journal of Atmospheric and Solar-Terrestrial Physics, 1985, 47, 1283-1296.	0.9	6
103	Effect of a heated patch of auroral ionosphere on VLF-radio wave propagation. Nature, 1984, 309, 534-536.	13.7	29
104	Ionospheric heater beam scanning: A new technique for ELF studies of the auroral ionosphere. Radio Science, 1984, 19, 1069-1077.	0.8	27
105	Micropulsations observed by whistler-mode transmissions. Nature, 1978, 276, 165-167.	13.7	10
106	Neutral air turbulence in the mesosphere and associated polar mesospheric summer echoes (PMSEs). Radio Science, 0, , .	0.8	0