Michael Rietveld

List of Publications by Year
in descending order

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106	2,440	201575	223716
papers	citations	27 h-index	46 g-index

115	115	115	647
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ionospheric electron heating, optical emissions, and striations induced by powerful HF radio waves at high latitudes: Aspect angle dependence. Journal of Geophysical Research, 2003, 108, .	3.3	161
2	Langmuir turbulence and ionospheric modification. Journal of Geophysical Research, 1992, 97, 6285-6297.	3.3	124
3	Stimulated electromagnetic emission near electron cyclotron harmonics in the ionosphere. Physical Review Letters, 1989, 63, 1145-1147.	2.9	114
4	Polar mesosphere summer echoes observed with the EISCAT 933â€MHz radar and the CUPRI 46.9â€MHz radar, their similarity to 224â€MHz radar echoes, and their relation to turbulence and electron density profiles. Radio Science, 1990, 25, 671-687.	0.8	100
5	First artificially induced modulation of PMSE using the EISCAT Heating Facility. Geophysical Research Letters, 2000, 27, 3801-3804.	1.5	85
6	Eiscat radar observations of enhanced incoherent scatter spectra; Their relation to red aurora and fieldâ€aligned currents. Geophysical Research Letters, 1991, 18, 1031-1034.	1.5	73
7	High-latitude HF-induced airglow displaced equatorwards of the pump beam. Geophysical Research Letters, 2000, 27, 2817-2820.	1.5	66
8	New capabilities of the upgraded EISCAT highâ€power HF facility. Radio Science, 2016, 51, 1533-1546.	0.8	66
9	First tomographic estimate of volume distribution of HF-pump enhanced airglow emission. Journal of Geophysical Research, 2001, 106, 29105-29123.	3.3	65
10	Measurements of HF-enhanced plasma and ion lines at EISCAT with high-altitude resolution. Journal of Geophysical Research, 2000, 105, 7429-7439.	3.3	62
11	Past, Present and Future of Active Radio Frequency Experiments in Space. Space Science Reviews, 2018, 214, 1.	3.7	62
12	On the frequency dependence of ELF/VLF waves produced by modulated ionospheric heating. Radio Science, 1989, 24, 270-278.	0.8	61
13	First observations of the PMSE overshoot effect and its use for investigating the conditions in the summer mesosphere. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	60
14	High-latitude pump-induced optical emissions for frequencies close to the third electron gyro-harmonic. Geophysical Research Letters, 2002, 29, 27-1-27-4.	1.5	59
15	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
16	The electron energy distribution during HF pumping, a picture painted with all colors. Annales Geophysicae, 2005, 23, 1747-1754.	0.6	52
17	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
18	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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19	Unambiguous evidence of HF pump-enhanced airglow at auroral latitudes. Geophysical Research Letters, 1999, 26, 3561-3564.	1.5	41
20	Altitude characteristics of plasma turbulence excited with the TromsÃ¸ Superheater. Journal of Geophysical Research, 1994, 99, 333.	3.3	36
21	FAST observations of ULF waves injected into the magnetosphere by means of modulated RF heating of the auroral electrojet. Geophysical Research Letters, 2000, 27, 3165-3168.	1.5	35
22	Cavitating Langmuir Turbulence Observed during High-Latitude Ionospheric Wave Interaction Experiments. Physical Review Letters, 1999, 83, 2576-2579.	2.9	32
23	Ionospheric heater beam scanning: A mobile source of ELF radiation. Radio Science, 1987, 22, 1073-1083.	0.8	30
24	Effect of a heated patch of auroral ionosphere on VLF-radio wave propagation. Nature, 1984, 309, 534-536.	13.7	29
25	Extra-low-frequency radiation from the polar electrojet antenna. Nature, 1985, 317, 155-157.	13.7	29
26	High-latitude ground-based observations of the thermospheric ion-drag time constant. Geophysical Research Letters, 2001, 28, 1395-1398.	1.5	28
27	Cavitating Langmuir Turbulence in the Terrestrial Aurora. Physical Review Letters, 2012, 108, 105003.	2.9	28
28	Ionospheric heater beam scanning: A new technique for ELF studies of the auroral ionosphere. Radio Science, 1984, 19, 1069-1077.	0.8	27
29	Spatial observations by the CUTLASS coherent scatter radar of ionospheric modification by high power radio waves. Annales Geophysicae, 1997, 15, 1412-1421.	0.6	27
30	The thresholds of ionospheric plasma instabilities pumped by highâ€frequency radio waves at EISCAT. Journal of Geophysical Research: Space Physics, 2013, 118, 7472-7481.	0.8	27
31	Collaborative experiments by Akebono satellite, TromsÃ¸ ionospheric heater, and European incoherent scatter radar. Radio Science, 1994, 29, 23-37.	0.8	26
32	Phenomena in the High-Latitude Ionospheric F Region Induced by a HF Heater Wave at Frequencies Near the Fourth Electron Gyroharmonic. Radiophysics and Quantum Electronics, 2014, 57, 1-19.	0.1	26
33	Simultaneous bistatic European Incoherent Scatter UHF, 145â€MHz radar and stimulated electromagnetic emission observations during HF ionospheric modification. Radio Science, 1988, 23, 809-819.	0.8	24
34	Geophysical phenomena during an ionospheric modification experiment at TromsÃ¸, Norway. Annales Geophysicae, 1998, 16, 1212-1225.	0.6	24
35	Modification of the High-Latitude Ionospheric F Region By High-Power HF Radio Waves at Frequencies Near the fifth and Sixth Electron Gyroharmonics. Radiophysics and Quantum Electronics, 2016, 58, 561-585.	0.1	22
36	Remote Oxygen Sensing by Ionospheric Excitation (ROSIE). Annales Geophysicae, 2009, 27, 2183-2189.	0.6	20

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37	F-region electron heating by X-mode radiowaves in underdense conditions. Annales Geophysicae, 2009, 27, 2585-2592.	0.6	20
38	Stimulated Brillouin scattering during electron gyro-harmonic heating at EISCAT. Annales Geophysicae, 2015, 33, 983-990.	0.6	20
39	Multi-frequency HF radar measurements of artificial F-region field-aligned irregularities. Annales Geophysicae, 2004, 22, 3503-3511.	0.6	20
40	Ionospheric heater beam scanning: A realistic model of this mobile source of ELF/VLF radiation. Radio Science, 1988, 23, 379-388.	0.8	19
41	Turbulence scattering layers in the middleâ€mesosphere observed by the EISCAT 224â€MHz radar. Radio Science, 1992, 27, 97-107.	0.8	19
42	Plasma drift estimates from the Dynasonde: comparison with EISCAT measurements. Annales Geophysicae, 1998, 16, 1138-1143.	0.6	19
43	Diagnosing radio plasma heating in the polar summer mesosphere using cross modulation: Theory and observations. Journal of Geophysical Research, 2010, 115, .	3.3	19
44	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
45	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
46	First direct observations of the reduced striations at pump frequencies close to the electron gyroharmonics. Annales Geophysicae, 1999, 17, 1235.	0.6	18
47	Radioâ€induced incoherent scatter ion line enhancements with wide altitude extents in the highâ€latitude ionosphere. Geophysical Research Letters, 2013, 40, 1669-1674.	1.5	16
48	A search for the location of the HF excitation of enhanced ion acoustic and langmuir waves with eiscat and the tromsÃ¸ heater. Radiophysics and Quantum Electronics, 1999, 42, 533-543.	0.1	15
49	First modulation of highâ€frequency polar mesospheric summer echoes by radio heating of the ionosphere. Geophysical Research Letters, 2014, 41, 5347-5353.	1.5	15
50	Stimulated emissions around second harmonic of TromsÃ¸ heater frequency observed by long-distance diagnostic HF tools. Geophysical Research Letters, 1998, 25, 873-876.	1.5	14
51	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
52	Doppler shift simulation of scattered HF signals during the TromsÃ¸ HF pumping experiment on 16 February 1996. Annales Geophysicae, 2002, 20, 1479-1486.	0.6	14
53	Directional features of the downshifted peak observed in HF-induced stimulated electromagnetic emission spectra obtained using an interferometer. Annales Geophysicae, 2006, 24, 1819-1827.	0.6	14
54	Spatial structure of auroral day-time ionospheric electron density irregularities generated by a powerful HF-wave. Annales Geophysicae, 1998, 16, 812-820.	0.6	13

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55	ELF wave generation in the ionosphere using pulse modulated HF heating: initial tests of a technique for increasing ELF wave generation efficiency. Annales Geophysicae, 1999, 17, 759-769.	0.6	12
56	Phenomena in the ionosphere-magnetosphere system induced by injection of powerful HF radio waves into nightside auroral ionosphere. Annales Geophysicae, 2005, 23, 87-100.	0.6	12
57	Aspect angle sensitivity of pump-induced optical emissions at EISCAT. Earth, Planets and Space, 2014, 66, .	0.9	12
58	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
59	The behavior of electron density and temperature during ionospheric heating near the fifth electron gyrofrequency. Journal of Geophysical Research: Space Physics, 2017, 122, 1277-1295.	0.8	11
60	Micropulsations observed by whistler-mode transmissions. Nature, 1978, 276, 165-167.	13.7	10
61	Phenomena observed by HF long-distance diagnostic tools in the HF modified auroral ionosphere during magnetospheric substorm. Radio Science, 1999, 34, 715-724.	0.8	10
62	Comparison of EISCAT and ionosonde electron densities: application to a ground-based ionospheric segment of a space weather programme. Annales Geophysicae, 2005, 23, 183-189.	0.6	10
63	A comparison of overshoot modelling with observations of polar mesospheric summer echoes at radar frequencies of 56 and 224 MHz. Annales Geophysicae, 2015, 33, 737-747.	0.6	10
64	Range imaging observations of PMSE using the EISCAT VHF radar: Phase calibration and first results. Annales Geophysicae, 2005, 23, 207-220.	0.6	10
65	<i>Letter to the Editor</i>: First direct observations of the reduced striations at pump frequencies close to the electron gyroharmonics. Annales Geophysicae, 1999, 17, 1235-1238.	0.6	9
66	Effects of high-latitude atmospheric gravity wave disturbances on artificial HF radar backscatter. Annales Geophysicae, 2006, 24, 2347-2361.	0.6	9
67	A comparison between resonant and nonresonant heating at EISCAT. Journal of Geophysical Research: Space Physics, 2013, 118, 6766-6776.	0.8	9
68	Direct measurement of lower thermospheric neutral density using multifrequency incoherent scattering. Geophysical Research Letters, 2014, 41, 8147-8154.	1.5	9
69	Electron Temperature Inversion by Stimulated Brillouin Scattering During Electron Gyroharmonic Heating at EISCAT. Geophysical Research Letters, 2020, 47, e2020GL089747.	1.5	9
70	Comparison of the orientation of small-scale electron density irregularities and F region plasma flow direction. Annales Geophysicae, 2000, 18, 918-926.	0.6	8
71	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
72	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

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73	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
74	Angular dependence of pump-induced bottomside and topside ionospheric plasma turbulence at EISCAT. Journal of Geophysical Research, 2011, 116, .	3.3	6
75	Evidence of <i>L</i>-mode electromagnetic wave pumping of ionospheric plasma near geomagnetic zenith. Annales Geophysicae, 2018, 36, 243-251.	0.6	6
76	Outshifted Plasma Lines Observed in Heating Experiments in the High-Latitude Ionosphere at Pump Frequencies Near Electron Gyroharmonics. Radiophysics and Quantum Electronics, 2019, 61, 722-740.	0.1	6
77	Mesospheric observations with the EISCAT UHF radar during polar cap absorption events: 3. Comparison with simultaneous EISCAT VHF measurements. Annales Geophysicae, 1998, 16, 1355-1366.	0.6	5
78	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
79	Dusty Space Plasma Diagnosis Using the Behavior of Polar Mesospheric Summer Echoes During Electron Precipitation Events. Journal of Geophysical Research: Space Physics, 2018, 123, 7697-7709.	0.8	5
80	Ducting of incoherent scatter radar waves by field-aligned irregularities. Annales Geophysicae, 2020, 38, 1101-1113.	0.6	5
81	The dependence of Fâ€region electron heating on HF radio pump power: Measurements at EISCAT TromsÃ¸. Journal of Geophysical Research, 2012, 117, .	3.3	4
82	The Extending of Observing Altitudes of Plasma and Ion Lines During Ionospheric Heating. Journal of Geophysical Research: Space Physics, 2018, 123, 918-930.	0.8	4
83	Enhanced ELF wave generation efficiency using â€˜O' mode HF heating. Geophysical Research Letters, 1997, 24, 1403-1406.	1.5	3
84	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
85	First Observations of Recurring HFâ€Enhanced Topside Ion Line Spectra Near the Fourth Gyroharmonic. Journal of Geophysical Research: Space Physics, 2018, 123, 8649-8663.	0.8	3
86	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. Radiophysics and Quantum Electronics, 2020, 62, 667-676.	0.1	3
87	Title is missing!. Radiophysics and Quantum Electronics, 2001, 44, 751-762.	0.1	2
88	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
89	Physical mechanisms associated with longâ€range propagation of the signals from ionospheric heating experiments. Radio Science, 2014, 49, 987-995.	0.8	2
90	Ionospheric electron number densities from CUTLASS dualâ€frequency velocity measurements using artificial backscatter over EISCAT. Journal of Geophysical Research: Space Physics, 2016, 121, 8066-8076.	0.8	2

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91	Altitude and intensity characteristics of parametric instability excited by an HF pump wave near the fifth electron harmonic. Plasma Science and Technology, 2017, 19, 125303.	0.7	2
92	A New Technique for Investigating Dust Charging in the PMSE Source Region. Geophysical Research Letters, 2020, 47, e2020GL089639.	1.5	2
93	Excitation of Langmuir and Ionâ€“Acoustic Turbulence in the High-Latitude Ionosphere by a High-Power HF Radio Wave Simultaneously Below and Above the F2-Layer Maximum. Radiophysics and Quantum Electronics, 2020, 62, 793-806.	0.1	2
94	Altitude descents in high-frequency enhanced plasma and ion lines during ionospheric heating at EISCAT. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 212, 105425.	0.6	2
95	GLONASS Observation of Artificial Fieldâ€Aligned Plasma Irregularities Near Magnetic Zenith During EISCAT HF Experiment. Geophysical Research Letters, 2021, 48, e2020GL091673.	1.5	2
96	History of the TromsÃ¸ ionosphere heating facility. History of Geo- and Space Sciences, 2022, 13, 71-82.	0.1	2
97	Characteristics of Pc4â€“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
98	Observations of HF-induced instability in the auroral E region. Annales Geophysicae, 2013, 31, 1103-1108.	0.6	1
99	Electron heating by HF pumping of high-latitude ionospheric F-region plasma near magnetic zenith. Annales Geophysicae, 2020, 38, 297-307.	0.6	1
100	Stimulated electromagnetic emissions spectrum observed during an X-mode heating experiment at the European Incoherent Scatter Scientific Association. Earth and Planetary Physics, 2019, 3, 391-399.	0.4	1
101	Enhanced ELF wave generation efficiency using â€˜Oâ€™ Mode HF heating of the ionosphere: An instrumental explanation. Geophysical Research Letters, 1998, 25, 3489-3492.	1.5	0
102	Dependence of the Pc4 magnetic pulsation parameters on the radiated power of the EISCAT HF heating facility. Geomagnetism and Aeronomy, 2013, 53, 32-42.	0.2	0
103	Systematic variation in observing altitude of enhanced ion line by the pump near fifth gyroharmonic. Plasma Science and Technology, 2018, 20, 125301.	0.7	0
104	The Intensities of High Frequencyâ€Enhanced Plasma and Ion Lines During Ionospheric Heating. Journal of Geophysical Research: Space Physics, 2019, 124, 603-615.	0.8	0
105	Conditions for Topside Ion Line Enhancements. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029379.	0.8	0
106	Neutral air turbulence in the mesosphere and associated polar mesospheric summer echoes (PMSEs). Radio Science, 0, , .	0.8	0