

Michael J Nicolls

List of Publications by Year in descending order

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47
papers

1,544
citations

304368

22
h-index

301761

39
g-index

47
all docs

47
docs citations

47
times ranked

1234
citing authors

#	ARTICLE	IF	CITATIONS
1	Penetration of the solar wind electric field into the magnetosphere/ionosphere system. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	236
2	A Bayesian approach to electric field and $E \times B$ region neutral wind estimation with the Poker Flat Advanced Modular Incoherent Scatter Radar. <i>Radio Science</i> , 2008, 43, .	0.8	111
3	Imaging the structure of a large-scale TID using ISR and TEC data. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	100
4	Three-dimensional measurements of traveling ionospheric disturbances with the Poker Flat Incoherent Scatter Radar. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	78
5	On the generation/decay of the storm-enhanced density plumes: Role of the convection flow and field-aligned ion flow. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 8543-8559.	0.8	74
6	Case studies of coupling between the E and F regions during unstable sporadic-E conditions. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	62
7	Temporal evolution of neutral, thermospheric winds and plasma response using PFISR measurements of gravity waves. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2009, 71, 744-770.	0.6	59
8	A top to bottom evaluation of IRI 2007 within the polar cap. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 6689-6703.	0.8	56
9	Multi-instrument observations of SED during 24-25 October 2011 storm: Implications for SED formation processes. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7798-7809.	0.8	53
10	Horizontal parameters of daytime thermospheric gravity waves and $E \times B$ region neutral winds over Puerto Rico. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 575-600.	0.8	49
11	Strong evidence for gravity wave seeding of an ionospheric plasma instability. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	44
12	Excitation of gravity waves by ocean surface wave packets: Upward propagation and reconstruction of the thermospheric gravity wave field. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 9748-9780.	0.8	41
13	Ionospheric ion temperature climate and upper atmospheric long-term cooling. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8951-8968.	0.8	39
14	Initial ionospheric observations made by the new Resolute incoherent scatter radar and comparison to solar wind IMF. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	37
15	The electron density dependence of polar mesospheric summer echoes. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2011, 73, 2153-2165.	0.6	35
16	Volumetric imaging of the auroral ionosphere: Initial results from PFISR. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2009, 71, 738-743.	0.6	34
17	Modeling of airglow and ionospheric parameters at Arecibo during quiet and disturbed periods in October 2002. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	28
18	Estimating the vector electric field using monostatic, multibeam incoherent scatter radar measurements. <i>Radio Science</i> , 2014, 49, 1124-1139.	0.8	26

#	ARTICLE	IF	CITATIONS
19	Solar cycle variability of nighttime topside helium ion concentrations over Arecibo. Journal of Geophysical Research, 2004, 109, .	3.3	25
20	The spectral properties of low latitude daytime electric fields inferred from magnetometer observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 1160-1173.	0.6	25
21	Spectacular low- and mid-latitude electrical fields and neutral winds during a superstorm. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 285-291.	0.6	25
22	Instantaneous electric field measurements and derived neutral winds at Arecibo. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	23
23	Using PFISR measurements and gravity wave dissipative theory to determine the neutral, background thermospheric winds. Geophysical Research Letters, 2008, 35, .	1.5	22
24	Spectral observations of polar mesospheric summer echoes at 33cm (450MHz) with the Poker Flat Incoherent Scatter Radar. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 662-674.	0.6	21
25	Electrodynamics of the high-latitude trough: Its relationship with convection flows and field-aligned currents. Journal of Geophysical Research: Space Physics, 2013, 118, 2565-2572.	0.8	21
26	PFISR observation of intense ion upflow fluxes associated with an SED during the 1 June 2013 geomagnetic storm. Journal of Geophysical Research: Space Physics, 2017, 122, 2589-2604.	0.8	19
27	Daytime F-region ion energy balance at Arecibo for moderate to high solar flux conditions. Journal of Geophysical Research, 2006, 111, .	3.3	18
28	Determination of physical and radiant meteor properties using PFISR interferometry measurements of head echoes. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 1221-1230.	0.6	15
29	Molecular ion composition measurements in the F1 region at Arecibo. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	14
30	Meteor-head echo observations using an antenna compression approach with the 450MHz Poker Flat Incoherent Scatter Radar. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 636-643.	0.6	14
31	Localized field-aligned currents in the polar cap associated with airglow patches. Journal of Geophysical Research: Space Physics, 2016, 121, 10,172-10,189.	0.8	14
32	Intense nighttime flux from the plasmasphere during a modest magnetic storm. Journal of Atmospheric and Solar-Terrestrial Physics, 2003, 65, 1099-1105.	0.6	13
33	Statistical comparison of TEC derived from GPS and ISR observations at high latitudes. Radio Science, 2013, 48, 441-452.	0.8	13
34	Investigation of a rare event where the polar ionospheric reverse convection potential does not saturate during a period of extreme northward IMF solar wind driving. Journal of Geophysical Research: Space Physics, 2016, 121, 5422-5435.	0.8	12
35	Inferring $\langle i \rangle D \langle j \rangle$ region parameters using improved incoherent scatter radar techniques at Arecibo. Journal of Geophysical Research, 2008, 113, .	3.3	11
36	An energy balance study of the lower topside ionosphere using the Arecibo incoherent scatter radar and heating facilities. Journal of Geophysical Research, 2005, 110, .	3.3	9

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37	Discrepancy between the nighttime molecular ion composition given by the International Reference Ionosphere model and airglow measurements at low latitudes. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	9
38	Direct measurement of lower thermospheric neutral density using multifrequency incoherent scattering. <i>Geophysical Research Letters</i> , 2014, 41, 8147-8154.	1.5	9
39	Observations of polar mesospheric summer echoes using PFISR during the summer of 2007. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2009, 71, 470-476.	0.6	8
40	Global observations of E region plasma density morphology and variability. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	8
41	Comparison of SuperDARN irregularity drift measurements and F-region ion velocities from the resolute bay ISR. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2013, 105-106, 325-331.	0.6	8
42	Strong ambipolar-driven ion upflow within the cleft ion fountain during low geomagnetic activity. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 6950-6969.	0.8	8
43	Observations of Plasma Line Splitting in the Ionospheric Incoherent Scatter Spectrum. <i>Physical Review Letters</i> , 2008, 100, 045005.	2.9	7
44	RISR observations of the IMF B_y influence on reverse convection during extreme northward IMF. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3707-3720.	0.8	4
45	24/7 Solar minimum polar cap and auroral ion temperature observations. <i>Advances in Space Research</i> , 2011, 48, 1-11.	1.2	3
46	Diurnal variability of the gyro resonance line observed with the Arecibo incoherent scatter radar at E- and F1-region altitudes. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	2
47	Ionospheric ion temperature forecasting in multiples of 27 days. <i>Space Weather</i> , 2014, 12, 148-160.	1.3	2