

# Michael J Nicolls

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

47  
papers

1,251  
citations

20  
h-index

34  
g-index

47  
ext. papers

1,379  
ext. citations

3  
avg, IF

4.25  
L-index

#	Paper	IF	Citations
47	Penetration of the solar wind electric field into the magnetosphere/ionosphere system. <i>Geophysical Research Letters</i> , <b>2003</b> , 30,	4.9	202
46	A Bayesian approach to electric field and E-region neutral wind estimation with the Poker Flat Advanced Modular Incoherent Scatter Radar. <i>Radio Science</i> , <b>2008</b> , 43, n/a-n/a	1.4	94
45	Imaging the structure of a large-scale TID using ISR and TEC data. <i>Geophysical Research Letters</i> , <b>2004</b> , 31, n/a-n/a	4.9	82
44	Three-dimensional measurements of traveling ionospheric disturbances with the Poker Flat Incoherent Scatter Radar. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	63
43	Case studies of coupling between the E and F regions during unstable sporadic-E conditions. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		51
42	A top to bottom evaluation of IRI 2007 within the polar cap. <i>Journal of Geophysical Research: Space Physics</i> , <b>2014</b> , 119, 6689-6703	2.6	48
41	Temporal evolution of neutral, thermospheric winds and plasma response using PFISR measurements of gravity waves. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2009</b> , 71, 744-770	2	48
40	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> , <b>2014</b> , 119, 8543-8559	2.6	47
39	Multi-instrument observations of SED during 24-25 October 2011 storm: Implications for SED formation processes. <i>Journal of Geophysical Research: Space Physics</i> , <b>2013</b> , 118, 7798-7809	2.6	41
38	Strong evidence for gravity wave seeding of an ionospheric plasma instability. <i>Geophysical Research Letters</i> , <b>2005</b> , 32,	4.9	33
37	Initial ionospheric observations made by the new Resolute incoherent scatter radar and comparison to solar wind IMF. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	32
36	Ionospheric ion temperature climate and upper atmospheric long-term cooling. <i>Journal of Geophysical Research: Space Physics</i> , <b>2016</b> , 121, 8951-8968	2.6	31
35	Horizontal parameters of daytime thermospheric gravity waves and E region neutral winds over Puerto Rico. <i>Journal of Geophysical Research: Space Physics</i> , <b>2014</b> , 119, 575-600	2.6	30
34	The electron density dependence of polar mesospheric summer echoes. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2011</b> , 73, 2153-2165	2	29
33	Volumetric imaging of the auroral ionosphere: Initial results from PFISR. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2009</b> , 71, 738-743	2	29
32	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> , <b>2015</b> , 120, 9748-9780	2.6	25
31	The spectral properties of low latitude daytime electric fields inferred from magnetometer observations. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2007</b> , 69, 1160-1173	2	23

30	Modeling of airglow and ionospheric parameters at Arecibo during quiet and disturbed periods in October 2002. <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		23
29	Instantaneous electric field measurements and derived neutral winds at Arecibo. <i>Geophysical Research Letters</i> , <b>2005</b> , 32, n/a-n/a	4.9	21
28	Solar cycle variability of nighttime topside helium ion concentrations over Arecibo. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		21
27	Spectral observations of polar mesospheric summer echoes at 33 cm (450 MHz) with the Poker Flat Incoherent Scatter Radar. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2009</b> , 71, 662-674	2	19
26	Spectacular low- and mid-latitude electrical fields and neutral winds during a superstorm. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2010</b> , 72, 285-291	2	19
25	Estimating the vector electric field using monostatic, multibeam incoherent scatter radar measurements. <i>Radio Science</i> , <b>2014</b> , 49, 1124-1139	1.4	18
24	Electrodynamics of the high-latitude trough: Its relationship with convection flows and field-aligned currents. <i>Journal of Geophysical Research: Space Physics</i> , <b>2013</b> , 118, 2565-2572	2.6	18
23	Using PFISR measurements and gravity wave dissipative theory to determine the neutral, background thermospheric winds. <i>Geophysical Research Letters</i> , <b>2008</b> , 35,	4.9	18
22	Daytime F region ion energy balance at Arecibo for moderate to high solar flux conditions. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		17
21	PFISR observation of intense ion upflow fluxes associated with an SED during the 1 June 2013 geomagnetic storm. <i>Journal of Geophysical Research: Space Physics</i> , <b>2017</b> , 122, 2589-2604	2.6	13
20	Localized field-aligned currents in the polar cap associated with airglow patches. <i>Journal of Geophysical Research: Space Physics</i> , <b>2016</b> , 121, 10,172-10,189	2.6	13
19	Statistical comparison of TEC derived from GPS and ISR observations at high latitudes. <i>Radio Science</i> , <b>2013</b> , 48, 441-452	1.4	13
18	Meteor-head echo observations using an antenna compression approach with the 450MHz Poker Flat Incoherent Scatter Radar. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2009</b> , 71, 636-643	2	13
17	Molecular ion composition measurements in the F1 region at Arecibo. <i>Journal of Geophysical Research</i> , <b>2007</b> , 112, n/a-n/a		12
16	Determination of physical and radiant meteor properties using PFISR interferometry measurements of head echoes. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2010</b> , 72, 1221-1230 <sup>2</sup>		11
15	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. <i>Journal of Geophysical Research: Space Physics</i> , <b>2016</b> , 121, 5422-5435	2.6	10
14	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> , <b>2006</b> , 111,		9
13	Intense nighttime flux from the plasmasphere during a modest magnetic storm. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2003</b> , 65, 1099-1105	2	9

12	Observations of polar mesospheric summer echoes using PFISR during the summer of 2007. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2009</b> , 71, 470-476	2	8
11	Inferring D region parameters using improved incoherent scatter radar techniques at Arecibo. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113, n/a-n/a		8
10	Strong ambipolar-driven ion upflow within the cleft ion fountain during low geomagnetic activity. <i>Journal of Geophysical Research: Space Physics</i> , <b>2016</b> , 121, 6950-6969	2.6	7
9	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> , <b>2013</b> , 105-106, 325-331	2	7
8	Observations of plasma line splitting in the ionospheric incoherent scatter spectrum. <i>Physical Review Letters</i> , <b>2008</b> , 100, 045005	7.4	7
7	Direct measurement of lower thermospheric neutral density using multifrequency incoherent scattering. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 8147-8154	4.9	6
6	Global observations of E region plasma density morphology and variability. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117,		6
5	An energy balance study of the lower topside ionosphere using the Arecibo incoherent scatter radar and heating facilities. <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		6
4	RISR-N observations of the IMF By influence on reverse convection during extreme northward IMF. <i>Journal of Geophysical Research: Space Physics</i> , <b>2017</b> , 122, 3707-3720	2.6	4
3	24/7 Solar minimum polar cap and auroral ion temperature observations. <i>Advances in Space Research</i> , <b>2011</b> , 48, 1-11	2.4	3
2	Ionospheric ion temperature forecasting in multiples of 27 days. <i>Space Weather</i> , <b>2014</b> , 12, 148-160	3.7	2
1	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> , <b>2007</b> , 34,	4.9	2