

# Adrian J Mcdonald

## List of Publications by Year in descending order

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Version: 2024-02-01

64  
papers

1,477  
citations

331670

21  
h-index

377865

34  
g-index

75  
all docs

75  
docs citations

75  
times ranked

1504  
citing authors

#	ARTICLE	IF	CITATIONS
1	Representation of sea ice regimes in the Western Ross Sea, Antarctica, based on satellite imagery and AMPS wind data. <i>Climate Dynamics</i> , 2023, 60, 227-238.	3.8	1
2	Quantifying the Role of Atmospheric and Surface Albedo on Polar Amplification Using Satellite Observations and CMIP6 Model Output. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	3
3	Detection of supercooled liquid water containing clouds with ceilometers: development and evaluation of deterministic and data-driven retrievals. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 3663-3681.	3.1	3
4	First evidence of microplastics in Antarctic snow. <i>Cryosphere</i> , 2022, 16, 2127-2145.	3.9	118
5	Comparing Satellite- and Ground-Based Observations of Cloud Occurrence Over High Southern Latitudes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033607.	3.3	11
6	Southern Ocean cloud and aerosol data: a compilation of measurements from the 2018 Southern Ocean Ross Sea Marine Ecosystems and Environment voyage. <i>Earth System Science Data</i> , 2021, 13, 3115-3153.	9.9	16
7	The Southern Ocean Radiative Bias, Cloud Compensating Errors, and Equilibrium Climate Sensitivity in CMIP6 Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035310.	3.3	23
8	The state of the atmosphere in the 2016 southern Kerguelen Axis campaign region. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2020, 174, .	1.4	9
9	A New Method to Evaluate Reanalyses Using Synoptic Patterns: An Example Application in the Ross Sea/Ross Ice Shelf Region. <i>Earth and Space Science</i> , 2020, 7, e2019EA000794.	2.6	12
10	A Comparison of AMPS Forecasts Near the Ross Sea Polynya With Controlled Meteorological Balloon Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD030591.	3.3	3
11	Long-Term Analysis of Sea Ice Drift in the Western Ross Sea, Antarctica, at High and Low Spatial Resolution. <i>Remote Sensing</i> , 2020, 12, 1402.	4.0	11
12	Evaluation of Southern Ocean cloud in the HadGEM3 general circulation model and MERRA-2 reanalysis using ship-based observations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6607-6630.	4.9	24
13	Constraining the Surface Flux of Sea Spray Particles From the Southern Ocean. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032026.	3.3	20
14	Cluster-Based Evaluation of Model Compensating Errors: A Case Study of Cloud Radiative Effect in the Southern Ocean. <i>Geophysical Research Letters</i> , 2019, 46, 3446-3453.	4.0	15
15	The sensitivity of Southern Ocean aerosols and cloud microphysics to sea spray and sulfate aerosol production in the HadGEM3-GA7.1 chemistry-climate model. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 15447-15466.	4.9	34
16	Regional Regime-Based Evaluation of Present-Day General Circulation Model Cloud Simulations Using Self-Organizing Maps. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 4259-4272.	3.3	18
17	An energy balance model exploration of the impacts of interactions between surface albedo, cloud cover and water vapor on polar amplification. <i>Climate Dynamics</i> , 2018, 51, 1639-1658.	3.8	18
18	An analysis of the cloud environment over the Ross Sea and Ross Ice Shelf using CloudSat/CALIPSO satellite observations: the importance of synoptic forcing. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 9723-9739.	4.9	14

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19	A Comparison of Cloud Classification Methodologies: Differences Between Cloud and Dynamical Regimes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 11,173.	3.3	11
20	The evolution of zonally asymmetric austral ozone in a chemistry-climate model. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 14075-14084.	4.9	8
21	A comparison of Loon balloon observations and stratospheric reanalysis products. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 855-866.	4.9	34
22	Atmospheric forcing of sea ice anomalies in the Ross Sea polynya region. <i>Cryosphere</i> , 2017, 11, 267-280.	3.9	24
23	Antarctic Wave Dynamics Mystery Discovered by Lidar, Radar and Imager. <i>EPJ Web of Conferences</i> , 2016, 119, 13004.	0.3	1
24	The influence of ozone forcing on blocking in the Southern Hemisphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 14,358.	3.3	5
25	An automated satellite cloud classification scheme using self-organizing maps: Alternative ISCCP weather states. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 13,009.	3.3	19
26	A probabilistic study of the return of stratospheric ozone to 1960 levels. <i>Geophysical Research Letters</i> , 2016, 43, 9289-9297.	4.0	2
27	A Validation of the Antarctic Mesoscale Prediction System Using Self-Organizing Maps and High-Density Observations from SNOWWEB. <i>Monthly Weather Review</i> , 2016, 144, 3181-3200.	1.4	12
28	An Assessment of Future Southern Hemisphere Blocking Using CMIP5 Projections from Four GCMs. <i>Journal of Climate</i> , 2016, 29, 7599-7611.	3.2	17
29	The effect of ozone depletion on the Southern Annular Mode and stratosphere-troposphere coupling. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 6305-6312.	3.3	18
30	The influence of the Amundsen Sea Low on the winds in the Ross Sea and surroundings: Insights from a synoptic climatology. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2167-2189.	3.3	35
31	Vertical evolution of potential energy density and vertical wave number spectrum of Antarctic gravity waves from 35 to 105 km at McMurdo (77.8°S, 166.7°E). <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2719-2737.	3.3	41
32	The use of synoptic climatology with general circulation model output over New Zealand. <i>International Journal of Climatology</i> , 2014, 34, 3426-3439.	3.5	12
33	A quantitative measure of polar vortex strength using the function $\langle M \rangle$ . <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5966-5985.	3.3	22
34	Synoptic climatology of the Ross Ice Shelf and Ross Sea region of Antarctica: $k$ -means clustering and validation. <i>International Journal of Climatology</i> , 2014, 34, 2330-2348.	3.5	44
35	Winter temperature tides from 30 to 110 km at McMurdo (77.8°S, 166.7°E), Antarctica: Lidar observations and comparisons with WAM. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 2846-2863.	3.3	21
36	SNOWWEB - Wirelessly connected weather stations in Antarctica. , 2013, , .		2

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37	Semi-empirical models for chlorine activation and ozone depletion in the Antarctic stratosphere: proof of concept. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 3237-3243.	4.9	3
38	Inertiaâ€ gravity waves in Antarctica: A case study using simultaneous lidar and radar measurements at McMurdo/Scott Base (77.8Â°S, 166.7Â°E). <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2794-2808.	3.3	58
39	Quantifying the role of orographic gravity waves on polar stratospheric cloud occurrence in the Antarctic and the Arctic. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,493.	3.3	33
40	A technique to identify vortex air using carbon monoxide observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 12,719.	3.3	12
41	Gravity wave occurrence statistics derived from paired COSMIC/FORMOSAT3 observations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	25
42	The NIMO Monte Carlo model for box-air-mass factor and radiance calculations. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 721-738.	2.3	6
43	Properties of the quasi 16 day wave derived from EOS MLS observations. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	57
44	The effect of orographic gravity waves on Antarctic polar stratospheric cloud occurrence and composition. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	37
45	Snow accumulation and compaction derived from GPR data near Ross Island, Antarctica. <i>Cryosphere</i> , 2011, 5, 391-404.	3.9	13
46	Optimal estimation retrieval of aerosol microphysical properties from SAGE-II satellite observations in the volcanically unperturbed lower stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 4295-4317.	4.9	24
47	Role of gravity waves in the spatial and temporal variability of stratospheric temperature measured by COSMIC/FORMOSATâ€ and Rayleigh lidar observations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	22
48	A new perspective on the longitudinal variability of the semidiurnal tide. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	10
49	Source regions for Antarctic MLT nonâ€ migrating semidiurnal tides. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	28
50	Can gravity waves significantly impact PSC occurrence in the Antarctic?. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 8825-8840.	4.9	36
51	Identification of mixing barriers in chemistryâ€ climate model simulations using RÃ©nyi entropy. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	7
52	Comparison of stratospheric measurements made by CHAMP radio occultation and StratÃ©ole/Vorcore in situ data. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	11
53	A gravity wave climatology for Antarctica compiled from Challenging Minisatellite Payload/Global Positioning System (CHAMP/GPS) radio occultations. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	96
54	An improved measure of ozone depletion in the Antarctic stratosphere. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	27

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55	Validation of AIRS v4 ozone profiles in the UTLS using ozonesondes from Lauder, NZ and Boulder, USA. Journal of Geophysical Research, 2007, 112, .	3.3	28
56	A climatology of tides in the Antarctic mesosphere and lower thermosphere. Journal of Geophysical Research, 2006, 111, .	3.3	72
57	Wind-profiler observations of gravity waves produced by convection at mid-latitudes. Atmospheric Chemistry and Physics, 2006, 6, 2825-2836.	4.9	10
58	The signature of mid-latitude convection observed by VHF wind-profiling radar. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	20
59	Interannual variability in Antarctic ozone depletion controlled by planetary waves and polar temperature. Geophysical Research Letters, 2005, 32, .	4.0	51
60	The effect of precipitation on wind-profiler clear air returns. Annales Geophysicae, 2004, 22, 3959-3970.	1.6	15
61	Three-dimensional X-band SAR imaging of a small conifer tree. International Journal of Remote Sensing, 2001, 22, 705-710.	2.9	18
62	View Zenith Angle Effects on the Forest Information Content of Three Spectral Indices. Remote Sensing of Environment, 2000, 72, 139-158.	11.0	35
63	Inertia-gravity waves in the troposphere and lower stratosphere associated with a jet stream exit region. Annales Geophysicae, 1999, 17, 115.	1.6	18
64	Night-to-night changes in the characteristics of gravity waves at stratospheric and lower-mesospheric heights. Annales Geophysicae, 1998, 16, 229-237.	1.6	14