

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	First evidence of microplastics in Antarctic snow. <i>Cryosphere</i> , 2022, 16, 2127-2145.	3.9	118
2	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
3	A climatology of tides in the Antarctic mesosphere and lower thermosphere. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	72
4	Inertia-gravity waves in Antarctica: A case study using simultaneous lidar and radar measurements at McMurdo/Scott Base (77.8°S, 166.7°E). <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2794-2808.	3.3	58
5	Properties of the quasi 16 day wave derived from EOS MLS observations. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	57
6	Interannual variability in Antarctic ozone depletion controlled by planetary waves and polar temperature. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	51
7	Synoptic climatology of the Ross Ice Shelf and Ross Sea region of Antarctica: <i>k</i> -means clustering and validation. <i>International Journal of Climatology</i> , 2014, 34, 2330-2348.	3.5	44
8	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
9	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
10	Can gravity waves significantly impact PSC occurrence in the Antarctic?. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 8825-8840.	4.9	36
11	View Zenith Angle Effects on the Forest Information Content of Three Spectral Indices. <i>Remote Sensing of Environment</i> , 2000, 72, 139-158.	11.0	35
12	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
13	A comparison of Loon balloon observations and stratospheric reanalysis products. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 855-866.	4.9	34
14	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
15	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
16	Validation of AIRS v4 ozone profiles in the UTLS using ozonesondes from Lauder, NZ and Boulder, USA. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	28
17	Source regions for Antarctic MLT non-migrating semidiurnal tides. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	28
18	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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19	Gravity wave occurrence statistics derived from paired COSMIC/FORMOSAT3 observations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	25
20	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
21	Atmospheric forcing of sea ice anomalies in the Ross Sea polynya region. <i>Cryosphere</i> , 2017, 11, 267-280.	3.9	24
22	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
23	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
24	Role of gravity waves in the spatial and temporal variability of stratospheric temperature measured by COSMIC/FORMOSAT-3 and Rayleigh lidar observations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	22
25	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
26	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
27	The signature of mid-latitude convection observed by VHF wind-profiling radar. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	20
28	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
29	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
30	Three-dimensional X-band SAR imaging of a small conifer tree. <i>International Journal of Remote Sensing</i> , 2001, 22, 705-710.	2.9	18
31	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
32	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
33	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
34	Inertia-gravity waves in the troposphere and lower stratosphere associated with a jet stream exit region. <i>Annales Geophysicae</i> , 1999, 17, 115.	1.6	18
35	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
36	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

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37	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
38	The effect of precipitation on wind-profiler clear air returns. <i>Annales Geophysicae</i> , 2004, 22, 3959-3970.	1.6	15
39	Night-to-night changes in the characteristics of gravity waves at stratospheric and lower-mesospheric heights. <i>Annales Geophysicae</i> , 1998, 16, 229-237.	1.6	14
40	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
41	Snow accumulation and compaction derived from GPR data near Ross Island, Antarctica. <i>Cryosphere</i> , 2011, 5, 391-404.	3.9	13
42	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
43	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
44	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
45	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
46	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
47	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
48	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
49	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
50	Wind-profiler observations of gravity waves produced by convection at mid-latitudes. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 2825-2836.	4.9	10
51	A new perspective on the longitudinal variability of the semidiurnal tide. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	10
52	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
53	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
54	Identification of mixing barriers in chemistry-climate model simulations using RÃ©nyi entropy. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	7

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55	The NIMO Monte Carlo model for box-air-mass factor and radiance calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 721-738.	2.3	6
56	The influence of ozone forcing on blocking in the Southern Hemisphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14,358.	3.3	5
57	Semi-empirical models for chlorine activation and ozone depletion in the Antarctic stratosphere: proof of concept. Atmospheric Chemistry and Physics, 2013, 13, 3237-3243.	4.9	3
58	A Comparison of AMPS Forecasts Near the Ross Sea Polynya With Controlled Meteorological Balloon Observations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD030591.	3.3	3
59	Quantifying the Role of Atmospheric and Surface Albedo on Polar Amplification Using Satellite Observations and CMIP6 Model Output. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	3
60	Detection of supercooled liquid water containing clouds with ceilometers: development and evaluation of deterministic and data-driven retrievals. Atmospheric Measurement Techniques, 2022, 15, 3663-3681.	3.1	3
61	SNOWWEB - Wirelessly connected weather stations in Antarctica. , 2013, , .		2
62	A probabilistic study of the return of stratospheric ozone to 1960 levels. Geophysical Research Letters, 2016, 43, 9289-9297.	4.0	2
63	Antarctic Wave Dynamics Mystery Discovered by Lidar, Radar and Imager. EPJ Web of Conferences, 2016, 119, 13004.	0.3	1
64	Representation of sea ice regimes in the Western Ross Sea, Antarctica, based on satellite imagery and AMPS wind data. Climate Dynamics, 2023, 60, 227-238.	3.8	1