Ian A Renfrew

List of Publications by Year
in descending order

100 papers	4,410 citations	101543 36 h-index	118850 62 g-index
105 all docs	105 docs citations	105 times ranked	4519 citing authors

#	Article	IF	Citations
1	The Labrador Sea Deep Convection Experiment. Bulletin of the American Meteorological Society, 1998, 79, 2033-2058.	3.3	202
2	Advancing Polar Prediction Capabilities on Daily to Seasonal Time Scales. Bulletin of the American Meteorological Society, 2016, 97, 1631-1647.	3.3	199
3	A Comparison of Surface Layer and Surface Turbulent Flux Observations over the Labrador Sea with ECMWF Analyses and NCEP Reanalyses. Journal of Physical Oceanography, 2002, 32, 383-400.	1.7	192
4	Tip Jets and Barrier Winds: A QuikSCAT Climatology of High Wind Speed Events around Greenland. Journal of Climate, 2005, 18, 3713-3725.	3.2	169
5	Advances in understanding and parameterization of small-scale physical processes in the marine Arctic climate system: a review. Atmospheric Chemistry and Physics, 2014, 14, 9403-9450.	4.9	145
6	High-Latitude Ocean and Sea Ice Surface Fluxes: Challenges for Climate Research. Bulletin of the American Meteorological Society, 2013, 94, 403-423.	3.3	137
7	SEAFLUX. Bulletin of the American Meteorological Society, 2004, 85, 409-424.	3.3	120
8	Multidecadal Mobility of the North Atlantic Oscillation. Journal of Climate, 2013, 26, 2453-2466.	3.2	120
9	The Causes of Foehn Warming in the Lee of Mountains. Bulletin of the American Meteorological Society, 2016, 97, 455-466.	3.3	104
10	Variability in the freshwater balance of northern Marguerite Bay, Antarctic Peninsula: Results from Î´18O. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 309-322.	1.4	100
11	An Extreme Cold-Air Outbreak over the Labrador Sea: Roll Vortices and Airâ€"Sea Interaction. Monthly Weather Review, 1999, 127, 2379-2394.	1.4	99
12	Cold European winters: interplay between the NAO and the East Atlantic mode. Atmospheric Science Letters, 2012, 13, 1-8.	1.9	94
13	Aircraftâ€based observations of airâ€"sea fluxes over Denmark Strait and the Irminger Sea during high wind speed conditions. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 2030-2045.	2.7	87
14	The impact of polar mesoscale storms on northeast Atlantic Ocean circulation. Nature Geoscience, 2013, 6, 34-37.	12.9	85
15	Coastal polynyas in the southern Weddell Sea: Variability of the surface energy budget. Journal of Geophysical Research, 2002, 107, 16-1.	3.3	84
16	A Climatology of Wintertime Barrier Winds off Southeast Greenland. Journal of Climate, 2011, 24, 4701-4717.	3.2	81
17	Foehn jets over the Larsen C Ice Shelf, Antarctica. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 698-713.	2.7	81
18	THE GREENLAND FLOW DISTORTION EXPERIMENT. Bulletin of the American Meteorological Society, 2008, 89, 1307-1324.	3.3	75

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19	Polar Mesoscale Cyclones in the Northeast Atlantic: Comparing Climatologies from ERA-40 and Satellite Imagery. Monthly Weather Review, 2006, 134, 1518-1533.	1.4	72
20	A comparison of aircraftâ€based surfaceâ€layer observations over Denmark Strait and the Irminger Sea with meteorological analyses and QuikSCAT winds. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 2046-2066.	2.7	72
21	An Assessment of the Surface Turbulent Heat Fluxes from the NCEPâ€“NCAR Reanalysis over the Western Boundary Currents. Journal of Climate, 2002, 15, 2020-2037.	3.2	70
22	Evaluation of four global reanalysis products using in situ observations in the Amundsen Sea Embayment, Antarctica. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6240-6257.	3.3	70
23	The dynamics of idealized katabatic flow over a moderate slope and ice shelf. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 1023-1045.	2.7	65
24	Decreasing intensity of open-ocean convection in the Greenland and Iceland seas. Nature Climate Change, 2015, 5, 877-882.	18.8	63
25	Foehn warming distributions in nonlinear and linear flow regimes: a focus on the Antarctic Peninsula. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 618-631.	2.7	63
26	Impact of the 1997/98 ENSO on upper ocean characteristics in Marguerite Bay, western Antarctic Peninsula. Journal of Geophysical Research, 2004, 109, .	3.3	60
27	Changes in the freshwater composition of the upper ocean west of the Antarctic Peninsula during the first decade of the 21st century. Progress in Oceanography, 2010, 87, 127-143.	3.2	60
28	Seasonal Evolution of Aleutian Low Pressure Systems: Implications for the North Pacific Subpolar Circulation*. Journal of Physical Oceanography, 2009, 39, 1317-1339.	1.7	59
29	A high-resolution simulation of convective roll clouds during a cold-air outbreak. Geophysical Research Letters, 2004, 31, .	4.0	54
30	An overview of barrier winds off southeastern Greenland during the Greenland Flow Distortion experiment. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 1950-1967.	2.7	48
31	The Effect of the Sea-ice Zone on the Development of Boundary-layer Roll Clouds During Cold Air Outbreaks. Boundary-Layer Meteorology, 2006, 118, 557-581.	2.3	45
32	Profiles of katabatic flow in summer and winter over Coats Land, Antarctica. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 779-802.	2.7	44
33	Buoy observations from the windiest location in the world ocean, Cape Farewell, Greenland. Geophysical Research Letters, 2008, 35, .	4.0	44
34	A Reconstruction of the Airâ€“Sea Interaction Associated with the Weddell Polynya. Journal of Physical Oceanography, 2002, 32, 1685-1698.	1.7	43
35	An evaluation of surface meteorology and fluxes over the Iceland and Greenland Seas in <scp>ERA5</scp> reanalysis: The impact of sea ice distribution. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 691-712.	2.7	43
36	The Impact of FÃ¶hn Winds on Surface Energy Balance During the 2010â€“2011 Melt Season Over Larsen C Ice Shelf, Antarctica. Journal of Geophysical Research D: Atmospheres, 2017, 122, 12,062.	3.3	39

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37	Atmospheric Drivers of Melt on Larsen C Ice Shelf: Surface Energy Budget Regimes and the Impact of Foehn. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032463.	3.3	39
38	Modeling the impact of polar mesocyclones on ocean circulation. Journal of Geophysical Research, 2008, 113, .	3.3	38
39	An easterly tip jet off Cape Farewell, Greenland. I: Aircraft observations. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 1919-1933.	2.7	36
40	An easterly tip jet off Cape Farewell, Greenland. II: Simulations and dynamics. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 1934-1949.	2.7	36
41	Between the Devil and the Deep Blue Sea: The Role of the Amundsen Sea Continental Shelf in Exchanges Between Ocean and Ice Shelves. , 2016, 29, 118-129.		36
42	Observations of surface momentum exchange over the marginal ice zone and recommendations for its parametrisation. Atmospheric Chemistry and Physics, 2016, 16, 1545-1563.	4.9	36
43	Mesoscale Forecasting during a Field Program: Meteorological Support of the Labrador Sea Deep Convection Experiment. Bulletin of the American Meteorological Society, 1999, 80, 605-620.	3.3	35
44	The impact of resolution on the representation of southeast Greenland barrier winds and katabatic flows. Geophysical Research Letters, 2015, 42, 3011-3018.	4.0	35
45	Seasonal evolution of the upper-ocean adjacent to the South Orkney Islands, Southern Ocean: Results from a â€œlazy biological mooringâ€. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 1569-1579.	1.4	34
46	Complexities in the climate of the subpolar North Atlantic: a case study from the winter of 2007. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 757-767.	2.7	34
47	On the impact of highâ€resolution, highâ€frequency meteorological forcing on Denmark Strait ocean circulation. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 2067-2085.	2.7	32
48	Cloud Banding and Winds in Intense European Cyclones: Results from the DIAMET Project. Bulletin of the American Meteorological Society, 2015, 96, 249-265.	3.3	32
49	Arctic System Reanalysis improvements in topographically forced winds near Greenland. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 2033-2045.	2.7	32
50	Observed microphysical changes in Arctic mixed-phase clouds when transitioning from sea ice to open ocean. Atmospheric Chemistry and Physics, 2016, 16, 13945-13967.	4.9	31
51	Meteorological buoy observations from the central Iceland Sea. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3199-3208.	3.3	30
52	Convective heat transfer over thin ice covered coastal polynyas. Journal of Geophysical Research, 2010, 115, .	3.3	29
53	Spatial distribution of airâ€sea heat fluxes over the subâ€polar North Atlantic Ocean. Geophysical Research Letters, 2012, 39, .	4.0	29
54	Orographic effects on the transport and deposition of volcanic ash: A case study of Mount Sakurajima, Japan. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9332-9350.	3.3	29

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55	A Simple Model Of The Convective Internal Boundary Layer And Its Application To Surface Heat Flux Estimates Within Polynyas. Boundary-Layer Meteorology, 2000, 94, 335-356.	2.3	28
56	Atmospheric conditions associated with oceanic convection in the southâ€east Labrador Sea. Geophysical Research Letters, 2008, 35, .	4.0	27
57	On the spatial distribution of high winds off southeast Greenland. Geophysical Research Letters, 2012, 39, .	4.0	27
58	An Autonomous Doppler Sodar Wind Profiling System. Journal of Atmospheric and Oceanic Technology, 2005, 22, 1309-1325.	1.3	24
59	Offshore Transport of Dense Water from the East Greenland Shelf. Journal of Physical Oceanography, 2014, 44, 229-245.	1.7	23
60	Structure of a shearâ€line polar low. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 12-26.	2.7	23
61	Meteorological Controls on Local and Regional Volcanic Ash Dispersal. Scientific Reports, 2018, 8, 6873.	3.3	23
62	Summertime cloud phase strongly influences surface melting on the Larsen C ice shelf, Antarctica. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1575-1589.	2.7	23
63	Aircraftâ€based observations of airâ€"sea turbulent fluxes around the British Isles. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 139-152.	2.7	22
64	Atmospheric sensitivity to marginalâ€iceâ€zone drag: Local and global responses. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 1165-1179.	2.7	22
65	Current Challenges in Orographic Flow Dynamics: Turbulent Exchange Due to Low-Level Gravity-Wave Processes. Atmosphere, 2018, 9, 361.	2.3	21
66	The Iceland Greenland Seas Project. Bulletin of the American Meteorological Society, 2019, 100, 1795-1817.	3.3	21
67	The surface climatology of an ordinary katabatic wind regime in Coats Land, Antarctica. Tellus, Series A: Dynamic Meteorology and Oceanography, 2002, 54, 463-484.	1.7	21
68	Paving the Way for the Year of Polar Prediction. Bulletin of the American Meteorological Society, 2016, 97, ES85-ES88.	3.3	20
69	Subâ€km scale numerical weather prediction model simulations of radiation fog. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 746-763.	2.7	19
70	Sea-ice retreat suggests re-organization of water mass transformation in the Nordic and Barents Seas. Nature Communications, 2022, 13, 67.	12.8	19
71	Southern Ocean mesocyclones and polar lows from manually tracked satellite mosaics. Geophysical Research Letters, 2017, 44, 7985-7993.	4.0	18
72	Binary interactions between polar lows. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 49, 577.	1.7	16

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73	What causes the location of the airâ€sea turbulent heat flux maximum over the Labrador Sea?. Geophysical Research Letters, 2014, 41, 3628-3635.	4.0	16
74	The surface climatology of an ordinary katabatic wind regime in Coats Land, Antarctica. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 54, 463.	1.7	15
75	Numerical simulations of katabatic jumps in coats land, Antartica. Boundary-Layer Meteorology, 2005, 114, 413-437.	2.3	15
76	Numerical modelling of the evolution of the boundary layer during a radiation fog event. Weather, 2018, 73, 310-316.	0.7	14
77	Surface Heat and Moisture Exchange in the Marginal Ice Zone: Observations and a New Parameterization Scheme for Weather and Climate Models. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034827.	3.3	13
78	Forecast Impact of Targeted Observations: Sensitivity to Observation Error and Proximity to Steep Orography. Monthly Weather Review, 2011, 139, 69-78.	1.4	11
79	Modification of Polar Low Development by Orography and Sea Ice. Monthly Weather Review, 2018, 146, 3325-3341.	1.4	11
80	The impact of targeted observations made during the Greenland Flow Distortion Experiment. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 2012-2029.	2.7	10
81	Greenland plateau jets. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 65, 17468.	1.7	10
82	Thermally Induced Convective Circulation and Precipitation over an Isolated Volcano. Journals of the Atmospheric Sciences, 2016, 73, 1667-1686.	1.7	10
83	The Impact of Highâ€Frequency Weather Systems on <scp>SST</scp> and Surface Mixed Layer in the Central Arabian Sea. Journal of Geophysical Research: Oceans, 2018, 123, 1091-1104.	2.6	10
84	Convection in the Western North Atlantic Sub-Polar Gyre: Do Small-Scale Wind Events Matter?. , 2008, , 629-652.		10
85	Characteristics of Cold Air Outbreak events and associated Polar Mesoscale Cyclogenesis over the North Atlantic region. Journal of Climate, 2021, , 1-52.	3.2	10
86	A parameterization of Greenland's tip jets suitable for ocean or coupled climate models. Journal of Geophysical Research, 2010, 115, .	3.3	8
87	High-Latitude Dynamics of Atmosphereâ€"Iceâ€"Ocean Interactions. Bulletin of the American Meteorological Society, 2016, 97, ES179-ES182.	3.3	7
88	The impact of wintertime sea-ice anomalies on high surface heat flux events in the Iceland and Greenland Seas. Climate Dynamics, 2020, 54, 1937-1952.	3.8	7
89	Ship-based estimates of momentum transfer coefficient over sea ice and recommendations for its parameterization. Atmospheric Chemistry and Physics, 2022, 22, 4763-4778.	4.9	7
90	The Labrador Sea Deep Convection Experiment data collection. Geochemistry, Geophysics, Geosystems, 2003, 4, .	2.5	6

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91	Binary interactions between polar lows. Tellus, Series A: Dynamic Meteorology and Oceanography, 1997, 49, 577-594.	1.7	5
92	The Response of the Nordic Seas to Wintertime Sea Ice Retreat. Journal of Climate, 2021, 34, 6041-6056.	3.2	5
93	Observational studies. , 2003, , 150-285.		4
94	A 20â€Year Study of Melt Processes Over Larsen C Ice Shelf Using a Highâ€Resolution Regional Atmospheric Model: 1. Model Configuration and Validation. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	2
95	The Greenland Flow Distortion experiment. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 1917-1918.	2.7	1
96	The Annual Salinity Cycle of the Denmark Strait Overflow. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	1
97	A Ship-Based Characterization of Coherent Boundary-Layer Structures Over the Lifecycle of a Marine Cold-Air Outbreak. Boundary-Layer Meteorology, 0, , 1.	2.3	1
98	A 20â€Year Study of Melt Processes Over Larsen C Ice Shelf Using a Highâ€Resolution Regional Atmospheric Model: 2. Drivers of Surface Melting. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	1
99	Weather image. Weather, 2002, 57, 468-468.	0.7	0
100	Corrigendum to "Advances in understanding and parameterization of small-scale physical processes in the marine Arctic climate system: a review" published in Atmos. Chem. Phys., 14, 9403â€“9450, 2014. Atmospheric Chemistry and Physics, 2014, 14, 9923-9923.	4.9	0