David Holland

List of Publications by Year
in descending order

78	5,052	126907 33	95266 68
papers	citations	h-index	g-index

80	80	80	4904
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Acceleration of Jakobshavn IsbrÃ¦Âtriggered by warm subsurface ocean waters. Nature Geoscience, 2008, 1, 659-664.	12.9	716
2	Modeling Thermodynamic Iceâ€"Ocean Interactions at the Base of an Ice Shelf. Journal of Physical Oceanography, 1999, 29, 1787-1800.	1.7	440
3	Modelling Circumpolar Deep Water intrusions on the Amundsen Sea continental shelf, Antarctica. Geophysical Research Letters, 2008, 35, .	4.0	326
4	Impacts of the north and tropical Atlantic Ocean on the Antarctic Peninsula and sea ice. Nature, 2014, 505, 538-542.	27.8	238
5	The Response of Ice Shelf Basal Melting to Variations in Ocean Temperature. Journal of Climate, 2008, 21, 2558-2572.	3.2	229
6	OMIP contribution to CMIP6: experimental and diagnostic protocol for the physical component of the Ocean Model Intercomparison Project. Geoscientific Model Development, 2016, 9, 3231-3296.	3.6	223
7	Ice-Sheet Response to Oceanic Forcing. Science, 2012, 338, 1172-1176.	12.6	197
8	Characteristics of ocean waters reaching Greenland's glaciers. Annals of Glaciology, 2012, 53, 202-210.	1.4	194
9	An assessment of global and regional sea level for years 1993â€"2007 in a suite of interannual CORE-II simulations. Ocean Modelling, 2014, 78, 35-89.	2.4	106
10	Experimental design for three interrelated marine ice sheet and ocean model intercomparison projects: MISMIP v. 3 (MISMIP +), ISOMIP v. 2 (ISOMIP +) and MISOMIP v. 1 (MISOMIP1). Geoscientific Model Development, 2016, 9, 2471-2497.	3.6	106
11	Channelized Ice Melting in the Ocean Boundary Layer Beneath Pine Island Glacier, Antarctica. Science, 2013, 341, 1236-1239.	12.6	95
12	Rapid decline in Antarctic sea ice in recent years hints at future change. Nature Geoscience, 2021, 14, 460-464.	12.9	95
13	Explaining the Weddell Polynya--a Large Ocean Eddy Shed at Maud Rise. Science, 2001, 292, 1697-1700.	12.6	90
14	Tropical teleconnection impacts on Antarctic climate changes. Nature Reviews Earth & Environment, 2021, 2, 680-698.	29.7	85
15	Sea-level feedback lowers projections of future Antarctic Ice-Sheet mass loss. Nature Communications, 2015, 6, 8798.	12.8	82
16	Ice-shelf basal channels in a coupled ice/ocean model. Journal of Glaciology, 2012, 58, 1227-1244.	2.2	76
17	Oceans Melting Greenland: Early Results from NASAâ€™s Ocean-Ice Mission in Greenland. , 2016, 29, 72-83.		75
18	Modelling the ocean circulation beneath the Ross Ice Shelf. Antarctic Science, 2003, 15, 13-23.	0.9	74

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19	A Rossby Wave Bridge from the Tropical Atlantic to West Antarctica. Journal of Climate, 2015, 28, 2256-2273.	3.2	72
20	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
21	Oceanic Boundary Conditions for Jakobshavn Glacier. Part I: Variability and Renewal of Ilulissat Icefjord Waters, 2001â€"14. Journal of Physical Oceanography, 2015, 45, 3-32.	1.7	66
22	Adaptation of an Isopycnic Coordinate Ocean Model for the Study of Circulation beneath Ice Shelves. Monthly Weather Review, 2001, 129, 1905-1927.	1.4	63
23	Effects of an Explosive Polar Cyclone Crossing the Antarctic Marginal Ice Zone. Geophysical Research Letters, 2019, 46, 5948-5958.	4.0	59
24	The Role of Meltwater Advection in the Formulation of Conservative Boundary Conditions at an Iceâ€"Ocean Interface. Journal of Physical Oceanography, 2001, 31, 285-296.	1.7	58
25	Understanding the Seasonal Cycle of Antarctic Sea Ice Extent in the Context of Longerâ€Term Variability. Reviews of Geophysics, 2019, 57, 1037-1064.	23.0	55
26	Rossby Waves Mediate Impacts of Tropical Oceans on West Antarctic Atmospheric Circulation in Austral Winter. Journal of Climate, 2015, 28, 8151-8164.	3.2	53
27	Recent Advances in Arctic Ocean Studies Employing Models from the Arctic Ocean Model Intercomparison Project. Oceanography, 2011, 24, 102-113.	1.0	49
28	A comparison of the Jacobian-free Newtonâ€"Krylov method and the EVP model for solving the sea ice momentum equation with a viscous-plastic formulation: A serial algorithm study. Journal of Computational Physics, 2012, 231, 5926-5944.	3.8	46
29	Intrusion of warm surface water beneath the McMurdo Ice Shelf, Antarctica. Journal of Geophysical Research: Oceans, 2013, 118, 7036-7048.	2.6	40
30	Molecular dynamics pre-simulations for nanoscale computational fluid dynamics. Microfluidics and Nanofluidics, 2015, 18, 461-474.	2.2	39
31	Modeling Landfast Sea Ice by Adding Tensile Strength. Journal of Physical Oceanography, 2010, 40, 185-198.	1.7	38
32	Internal hydraulic jumps and mixing in two-layer flows. Journal of Fluid Mechanics, 2002, 470, 63-83.	3.4	37
33	Centennial response of Greenlandâ€™s three largest outlet glaciers. Nature Communications, 2020, 11, 5718.	12.8	36
34	The Effect of Atmospheric Forcing Resolution on Delivery of Ocean Heat to the Antarctic Floating Ice Shelves*,+. Journal of Climate, 2015, 28, 6067-6085.	3.2	35
35	Ice scallops: a laboratory investigation of the iceâ€"water interface. Journal of Fluid Mechanics, 2019, 873, 942-976.	3.4	35
36	Polar Jet Associated Circulation Triggered a Saharan Cyclone and Derived the Poleward Transport of the African Dust Generated by the Cyclone. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,899.	3.3	33

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37	Polar Cyclones at the Origin of the Reoccurrence of the Maud Rise Polynya in Austral Winter 2017. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5251-5267.	3.3	33
38	The Southern Ocean and its interaction with the Antarctic Ice Sheet. Science, 2020, 367, 1326-1330.	12.6	32
39	Windâ€driven upwelling around grounded tabular icebergs. Journal of Geophysical Research: Oceans, 2015, 120, 5820-5835.	2.6	30
40	Oceanic Boundary Conditions for Jakobshavn Glacier. Part II: Provenance and Sources of Variability of Disko Bay and Ilulissat Icefjord Waters, 1990â€"2011. Journal of Physical Oceanography, 2015, 45, 33-63.	1.7	30
41	Rapid iceberg calving following removal of tightly packed pro-glacial mÃ©lange. Nature Communications, 2019, 10, 3250.	12.8	30
42	Ice-cliff failure via retrogressive slumping. Geology, 2019, 47, 449-452.	4.4	30
43	A two-dimensional coupled model for ice shelfâ€"ocean interaction. Ocean Modelling, 2007, 17, 123-139.	2.4	29
44	Bed elevation of Jakobshavn Isbrae, West Greenland, from high-resolution airborne gravity and other data. Geophysical Research Letters, 2017, 44, 3728-3736.	4.0	29
45	Tidally driven ice speed variation at Helheim Glacier, Greenland, observed with terrestrial radar interferometry. Journal of Glaciology, 2015, 61, 301-308.	2.2	28
46	A Community Ice Sheet Model for Sea Level Prediction: Building a Next-Generation Community Ice Sheet Model; Los Alamos, New Mexico, 18â€"20 August 2008. Eos, 2009, 90, 23.	0.1	27
47	Novel monitoring of Antarctic ice shelf basal melting using a fiberâ€optic distributed temperature sensing mooring. Geophysical Research Letters, 2014, 41, 6779-6786.	4.0	23
48	Accurate coastal DEM generation by merging ASTER GDEM and ICESat/GLAS data over Mertz Glacier, Antarctica. Remote Sensing of Environment, 2018, 206, 218-230.	11.0	23
49	Initial effects of oceanic warming on a coupled oceanâ€"ice shelfâ€"ice stream system. Earth and Planetary Science Letters, 2009, 287, 483-487.	4.4	22
50	Instability and Mixing of Zonal Jets along an Idealized Continental Shelf Break. Journal of Physical Oceanography, 2015, 45, 2315-2338.	1.7	22
51	Precursor motion to iceberg calving at Jakobshavn IsbrÃ¦, Greenland, observed with terrestrial radar interferometry. Journal of Glaciology, 2016, 62, 1134-1142.	2.2	22
52	Ross ice shelf cavity circulation, residence time, and melting: Results from a model of oceanic chlorofluorocarbons. Continental Shelf Research, 2010, 30, 733-742.	1.8	21
53	Grounding line migration through the calving season at Jakobshavn IsbrÃ¦, Greenland, observed with terrestrial radar interferometry. Cryosphere, 2018, 12, 1387-1400.	3.9	21
54	Greenland Mass Trends From Airborne and Satellite Altimetry During 2011â€"2020. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	2.8	20

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55	Implementation of the Jacobian-free Newtonâ€“Krylov method for solving the first-order ice sheet momentum balance. Journal of Computational Physics, 2011, 230, 6531-6545.	3.8	19
56	Quantifying the Uncertainty in Ground-Based GNSS-Reflectometry Sea Level Measurements. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 4419-4428.	4.9	18
57	Freshwater Flux and Spatiotemporal Simulated Runoff Variability into Ilulissat Icefjord, West Greenland, Linked to Salinity and Temperature Observations near Tidewater Glacier Margins Obtained Using Instrumented Ringed Seals. Journal of Physical Oceanography, 2015, 45, 1426-1445.	1.7	17
58	GPS-derived estimates of surface mass balance and ocean-induced basal melt for Pine Island Glacier ice shelf, Antarctica. Cryosphere, 2017, 11, 2655-2674.	3.9	16
59	A meandering polar jet caused the development of a Saharan cyclone and the transport of dust toward Greenland. Advances in Science and Research, 0, 16, 49-56.	1.0	16
60	An Impact of Subgrid-Scale Iceâ€“Ocean Dynamics on Sea-Ice Cover. Journal of Climate, 2001, 14, 1585-1601.	3.2	15
61	Transient sea-ice polynya forced by oceanic flow variability. Progress in Oceanography, 2000, 48, 403-460.	3.2	13
62	Vertical Structure of Diurnal Englacial Hydrology Cycle at Helheim Glacier, East Greenland. Geophysical Research Letters, 2018, 45, 8352-8362.	4.0	13
63	Calving Signature in Ocean Waves at Helheim Glacier and Sermilik Fjord, East Greenland. Journal of Physical Oceanography, 2016, 46, 2925-2941.	1.7	12
64	Bathymetry of Southeast Greenland From Oceans Melting Greenland (OMG) Data. Geophysical Research Letters, 2019, 46, 11197-11205.	4.0	12
65	Acquisition of a 3 min, two-dimensional glacier velocity field with terrestrial radar interferometry. Journal of Glaciology, 2017, 63, 629-636.	2.2	11
66	An investigation of the general circulation of the Arctic Ocean using an isopycnal model. Tellus, Series A: Dynamic Meteorology and Oceanography, 1996, 48, 138-157.	1.7	10
67	Efficient Flowline Simulations of Ice Shelfâ€“Ocean Interactions: Sensitivity Studies with a Fully Coupled Model. Journal of Physical Oceanography, 2013, 43, 2200-2210.	1.7	10
68	Atmospheric Rivers, Warm Air Intrusions, and Surface Radiation Balance in the Amundsen Sea Embayment. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034119.	3.3	10
69	A Numerical Method for Solving the Forced Baroclinic Coastal-Trapped Wave Problem of General Form. Journal of Atmospheric and Oceanic Technology, 1987, 4, 220-226.	1.3	9
70	A Model of Icebergs and Sea Ice in a Joint Continuum Framework. Journal of Geophysical Research: Oceans, 2017, 122, 9110-9125.	2.6	9
71	The Impacts of a Subglacial Discharge Plume on Calving, Submarine Melting, and MÃ©lange Mass Loss at Helheim Glacier, South East Greenland. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005910.	2.8	8
72	An energy-diagnostics intercomparison of coupled ice-ocean Arctic models. Ocean Modelling, 2006, 11, 1-27.	2.4	7

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73	Intercomparison of Arctic sea ice simulation in ROMS-CICE and ROMS-Budgell. Polar Science, 2021, 29, 100716.	1.2	5
74	Accuracy evaluation of digital elevation models derived from Terrestrial Radar Interferometer over Helheim Glacier, Greenland. Remote Sensing of Environment, 2022, 268, 112759.	11.0	5
75	A 1-D elasticâ€“plastic sea-ice model solved with an implicit Eulerianâ€“Lagrangian method. Ocean Modelling, 2007, 17, 1-27.	2.4	4
76	Mechanisms driving the asymmetric seasonal cycle of Antarctic Sea Ice in the CESM Large Ensemble. Annals of Glaciology, 2020, 61, 171-180.	1.4	4
77	Interannual summer mixing processes in the Ilulissat Icefjord, Greenland. Journal of Marine Systems, 2021, 214, 103476.	2.1	3
78	Depth-dependent artifacts resulting from ApRES signal clipping. Annals of Glaciology, 2020, 61, 108-113.	1.4	2