

Michael Steele

List of Publications by Year in descending order

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114
papers

8,959
citations

46918

47
h-index

42291

92
g-index

119
all docs

119
docs citations

119
times ranked

6355
citing authors

#	ARTICLE	IF	CITATIONS
1	PHC: A Global Ocean Hydrography with a High-Quality Arctic Ocean. <i>Journal of Climate</i> , 2001, 14, 2079-2087.	1.2	819
2	The large-scale freshwater cycle of the Arctic. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	478
3	Retreat of the cold halocline layer in the Arctic Ocean. <i>Journal of Geophysical Research</i> , 1998, 103, 10419-10435.	3.3	390
4	Arctic Ocean surface warming trends over the past 100 years. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	330
5	Analysis of the Arctic System for Freshwater Cycle Intensification: Observations and Expectations. <i>Journal of Climate</i> , 2010, 23, 5715-5737.	1.2	303
6	Circulation of summer Pacific halocline water in the Arctic Ocean. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	301
7	Arctic Ocean Warming Contributes to Reduced Polar Ice Cap. <i>Journal of Physical Oceanography</i> , 2010, 40, 2743-2756.	0.7	284
8	One more step toward a warmer Arctic. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	272
9	The large-scale energy budget of the Arctic. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	212
10	The impact of an intense summer cyclone on 2012 Arctic sea ice retreat. <i>Geophysical Research Letters</i> , 2013, 40, 720-726.	1.5	209
11	The arctic freshwater system: Changes and impacts. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	203
12	Synthesis of primary production in the Arctic Ocean: III. Nitrate and phosphate based estimates of net community production. <i>Progress in Oceanography</i> , 2013, 110, 126-150.	1.5	199
13	Rapid change in freshwater content of the Arctic Ocean. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	193
14	Recent Changes in Arctic Sea Ice: The Interplay between Ice Dynamics and Thermodynamics. <i>Journal of Climate</i> , 2000, 13, 3099-3114.	1.2	191
15	Hydrography of the upper Arctic Ocean measured from the nuclear submarine U.S.S. Pargo. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1998, 45, 15-38.	0.6	186
16	Arctic Sea Ice Retreat in 2007 Follows Thinning Trend. <i>Journal of Climate</i> , 2009, 22, 165-176.	1.2	176
17	Half a century of satellite remote sensing of sea-surface temperature. <i>Remote Sensing of Environment</i> , 2019, 233, 111366.	4.6	150
18	Sea ice melting and floe geometry in a simple ice-ocean model. <i>Journal of Geophysical Research</i> , 1992, 97, 17729-17738.	3.3	147

#	ARTICLE	IF	CITATIONS
19	Warming of the Arctic Ocean by a strengthened Atlantic Inflow: Model results. <i>Geophysical Research Letters</i> , 1998, 25, 1745-1748.	1.5	139
20	Mechanisms of summertime upper Arctic Ocean warming and the effect on sea ice melt. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	118
21	Seasonality and long-term trend of Arctic Ocean surface stress in a model. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 1723-1738.	1.0	117
22	The force balance of sea ice in a numerical model of the Arctic Ocean. <i>Journal of Geophysical Research</i> , 1997, 102, 21061-21079.	3.3	113
23	Modeling the impact of declining sea ice on the Arctic marine planktonic ecosystem. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	111
24	Arctic Ocean Freshwater Changes over the Past 100 Years and Their Causes. <i>Journal of Climate</i> , 2008, 21, 364-384.	1.2	93
25	Halocline water formation in the Barents Sea. <i>Journal of Geophysical Research</i> , 1995, 100, 881.	3.3	89
26	A simple model study of the Arctic Ocean freshwater balance, 1979-1985. <i>Journal of Geophysical Research</i> , 1996, 101, 20833-20848.	3.3	89
27	Arctic Iceâ€œOcean Modeling with and without Climate Restoring. <i>Journal of Physical Oceanography</i> , 1998, 28, 191-217.	0.7	89
28	Water properties and circulation in Arctic Ocean models. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	89
29	Ice-Seawater Turbulent Boundary Layer Interaction with Melting or Freezing. <i>Journal of Physical Oceanography</i> , 1986, 16, 1829-1846.	0.7	84
30	Did unusually sunny skies help drive the record sea ice minimum of 2007?. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	83
31	Changing seasonality of panarctic tundra vegetation in relationship to climatic variables. <i>Environmental Research Letters</i> , 2017, 12, 055003.	2.2	81
32	Partial recovery of the Arctic Ocean halocline. <i>Geophysical Research Letters</i> , 2002, 29, 2-1-2-4.	1.5	80
33	The partition of airâ€œiceâ€œocean momentum exchange as a function of ice concentration, floe size, and draft. <i>Journal of Geophysical Research</i> , 1989, 94, 12739-12750.	3.3	76
34	Synthesis of primary production in the Arctic Ocean: I. Surface waters, 1954â€œ2007. <i>Progress in Oceanography</i> , 2013, 110, 93-106.	1.5	75
35	Improved Estimation of Proxy Sea Surface Temperature in the Arctic. <i>Journal of Atmospheric and Oceanic Technology</i> , 2020, 37, 341-349.	0.5	70
36	Sea ice floe size distribution in the marginal ice zone: theory and numerical experiments. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 3484-3498.	1.0	68

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37	Drift in the Beaufort Gyre: A model intercomparison. <i>Geophysical Research Letters</i> , 2001, 28, 2935-2938.	1.5	61
38	Salinity trends on the Siberian shelves. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	59
39	Assimilating satellite concentration data into an Arctic sea ice mass balance model, 1979-1985. <i>Journal of Geophysical Research</i> , 1996, 101, 20849-20868.	3.3	58
40	Observational program tracks Arctic Ocean transition to a warmer state. <i>Eos</i> , 2007, 88, 398-399.	0.1	58
41	Role of the Molecular Sublayer in the Melting or Freezing of Sea Ice. <i>Journal of Physical Oceanography</i> , 1989, 19, 139-147.	0.7	57
42	Return of the cold halocline layer to the Amundsen Basin of the Arctic Ocean: Implications for the sea ice mass balance. <i>Geophysical Research Letters</i> , 2002, 29, 8-1.	1.5	56
43	Collapse of the 2017 Winter Beaufort High: A Response to Thinning Sea Ice?. <i>Geophysical Research Letters</i> , 2018, 45, 2860-2869.	1.5	55
44	The Beaufort Gyre intensification and stabilization: A model-observation synthesis. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 7933-7952.	1.0	54
45	Relaxation of central Arctic Ocean hydrography to pre-1990s climatology. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	52
46	Modeling the formation and fate of the near-surface temperature maximum in the Canadian Basin of the Arctic Ocean. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	51
47	Regional variability of Arctic sea ice seasonal change climate indicators from a passive microwave climate data record. <i>Environmental Research Letters</i> , 2019, 14, 045003.	2.2	50
48	Increasing exchanges at Greenland-Scotland Ridge and their links with the North Atlantic Oscillation and Arctic Sea Ice. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	49
49	Comparing modeled streamfunction, heat and freshwater content in the Arctic Ocean. <i>Ocean Modelling</i> , 2004, 6, 265-284.	1.0	49
50	Steric Sea Level Change in the Northern Seas. <i>Journal of Climate</i> , 2007, 20, 403-417.	1.2	47
51	Where can we find a seasonal cycle of the Atlantic water temperature within the Arctic Basin?. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	47
52	Multinational effort studies differences among Arctic Ocean models. <i>Eos</i> , 2001, 82, 637-637.	0.1	46
53	Future of the Arctic sea ice cover: Implications of an Antarctic analog. <i>Geophysical Research Letters</i> , 2001, 28, 307-310.	1.5	46
54	Light Availability and Phytoplankton Growth Beneath Arctic Sea Ice: Integrating Observations and Modeling. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 3651-3667.	1.0	45

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55	Spatiotemporal Variability of Sea Ice in the Arctic's Last Ice Area. <i>Geophysical Research Letters</i> , 2019, 46, 11237-11243.	1.5	45
56	North Pole Environmental Observatory delivers early results. <i>Eos</i> , 2002, 83, 357.	0.1	44
57	Validation of satellite sea surface temperature analyses in the Beaufort Sea using UpTempO buoys. <i>Remote Sensing of Environment</i> , 2016, 187, 458-475.	4.6	44
58	The influence of sea ice and snow cover and nutrient availability on the formation of massive under-ice phytoplankton blooms in the Chukchi Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2015, 118, 122-135.	0.6	43
59	The return of Pacific waters to the upper layers of the central Arctic Ocean. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2007, 54, 1509-1529.	0.6	42
60	Arctic ocean study: Synthesis of model results and observations. <i>Eos</i> , 2005, 86, 368.	0.1	41
61	Seasonal ice loss in the Beaufort Sea: Toward synchrony and prediction. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 1118-1132.	1.0	39
62	Greater Role of Geostrophic Currents in Ekman Dynamics in the Western Arctic Ocean as a Mechanism for Beaufort Gyre Stabilization. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 149-165.	1.0	39
63	The phenology of Arctic Ocean surface warming. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 6847-6861.	1.0	38
64	Sea Ice Growth, Melt, and Modeling: A Survey. , 2000, , 549-587.		37
65	Evaluation and Intercomparison of SMOS, Aquarius, and SMAP Sea Surface Salinity Products in the Arctic Ocean. <i>Remote Sensing</i> , 2019, 11, 3043.	1.8	37
66	Hydrography and vertical fluxes of heat and salt northeast of Svalbard in autumn. <i>Journal of Geophysical Research</i> , 1993, 98, 10013-10024.	3.3	36
67	Circulation of Pacific Winter Water in the Western Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 863-881.	1.0	36
68	Temporal Means and Variability of Arctic Sea Ice Melt and Freeze Season Climate Indicators Using a Satellite Climate Data Record. <i>Remote Sensing</i> , 2018, 10, 1328.	1.8	35
69	Climate Drivers Linked to Changing Seasonality of Alaska Coastal Tundra Vegetation Productivity. <i>Earth Interactions</i> , 2015, 19, 1-29.	0.7	34
70	Dissolved oxygen extrema in the Arctic Ocean halocline from the North Pole to the Lincoln Sea. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2005, 52, 1138-1154.	0.6	33
71	Loitering of the retreating sea ice edge in the Arctic Seas. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 7699-7721.	1.0	33
72	The great 2012 Arctic Ocean summer cyclone enhanced biological productivity on the shelves. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 297-312.	1.0	32

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73	On reconciling disparate studies of the sea-ice floe size distribution. <i>Elementa</i> , 2018, 6, .	1.1	29
74	Diffusive vertical heat flux in the Canada Basin of the Arctic Ocean inferred from moored instruments. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 496-508.	1.0	27
75	Hydrographic changes in the Lincoln Sea in the Arctic Ocean with focus on an upper ocean freshwater anomaly between 2007 and 2010. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 4699-4715.	1.0	26
76	Assessing Phytoplankton Activities in the Seasonal Ice Zone of the Greenland Sea Over an Annual Cycle. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 8004-8025.	1.0	25
77	Labrador Sea freshening linked to Beaufort Gyre freshwater release. <i>Nature Communications</i> , 2021, 12, 1229.	5.8	25
78	What Caused the Remarkable February 2018 North Greenland Polynya?. <i>Geophysical Research Letters</i> , 2018, 45, 13,342.	1.5	24
79	Springtime Export of Arctic Sea Ice Influences Phytoplankton Production in the Greenland Sea. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015799.	1.0	24
80	Modeling the seasonal evolution of the Arctic sea ice floe size distribution. <i>Elementa</i> , 2016, 4, .	1.1	24
81	Forum for Arctic Modeling and Observational Synthesis (FAMOS): Past, current, and future activities. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3803-3819.	1.0	23
82	Melt Pond Conditions on Declining Arctic Sea Ice Over 1979â€“2016: Model Development, Validation, and Results. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 7983-8003.	1.0	23
83	Changes in the Arctic Ocean Carbon Cycle With Diminishing Ice Cover. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088051.	1.5	23
84	Seasonal evolution of the sea-ice floe size distribution in the Beaufort and Chukchi seas. <i>Elementa</i> , 2018, 6, .	1.1	21
85	Seasonal to decadal variability of Arctic Ocean heat content: A modelâ€“based analysis and implications for autonomous observing systems. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 1673-1695.	1.0	20
86	Using Saildrones to Validate Arctic Sea-Surface Salinity from the SMAP Satellite and from Ocean Models. <i>Remote Sensing</i> , 2021, 13, 831.	1.8	20
87	Accelerated sea ice loss in the Wandel Sea points to a change in the Arcticâ€™s Last Ice Area. <i>Communications Earth & Environment</i> , 2021, 2, .	2.6	20
88	Snowpack measurements suggest role for multi-year sea ice regions in Arctic atmospheric bromine and chlorine chemistry. <i>Elementa</i> , 2019, 7, .	1.1	20
89	Tracing freshwater anomalies through the airâ€“landâ€“ocean system: A case study from the Mackenzie river basin and the Beaufort Gyre. <i>Atmosphere - Ocean</i> , 2009, 47, 79-97.	0.6	19
90	On the Flow Through Bering Strait: A Synthesis of Model Results and Observations. , 2014, , 167-198.		19

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91	Model-Based Systems Engineering and Control System Development via Virtual Hardware-in-the-Loop Simulation. , 0, , .		18
92	Ekman circulation in the Arctic Ocean: Beyond the Beaufort Gyre. Journal of Geophysical Research: Oceans, 2017, 122, 3358-3374.	1.0	18
93	Researchers explore Arctic freshwater's role in ocean circulation. Eos, 2000, 81, 169-174.	0.1	16
94	A Meteoric Water Budget for the Arctic Ocean. Journal of Geophysical Research: Oceans, 2017, 122, 10020-10041.	1.0	15
95	Narwhals document continued warming of southern Baffin Bay. Journal of Geophysical Research, 2010, 115, .	3.3	14
96	On the waters upstream of Nares Strait, Arctic Ocean, from 1991 to 2012. Continental Shelf Research, 2014, 73, 83-96.	0.9	14
97	Recent upper Arctic Ocean warming expedited by summertime atmospheric processes. Nature Communications, 2022, 13, 362.	5.8	14
98	Arctic sea ice response to atmospheric forcings with varying levels of anthropogenic warming and climate variability. Geophysical Research Letters, 2010, 37, .	1.5	12
99	Episodic Extrema of Surface Stress Energy Input to the Western Arctic Ocean Contributed to Step Changes of Freshwater Content in the Beaufort Gyre. Geophysical Research Letters, 2019, 46, 12173-12182.	1.5	10
100	Exploring the Pacific Arctic Seasonal Ice Zone With Saildrone USVs. Frontiers in Marine Science, 2021, 8, .	1.2	9
101	Comparison of GHRSSST SST Analysis in the Arctic Ocean and Alaskan Coastal Waters Using Saildrones. Remote Sensing, 2022, 14, 692.	1.8	8
102	An energy-diagnostics intercomparison of coupled ice-ocean Arctic models. Ocean Modelling, 2006, 11, 1-27.	1.0	7
103	Seasonal heat and freshwater cycles in the Arctic Ocean in CMIP5 coupled models. Journal of Geophysical Research: Oceans, 2016, 121, 2043-2057.	1.0	7
104	Increasing Winter Ocean-to-Ice Heat Flux in the Beaufort Gyre Region, Arctic Ocean Over 2006-2018. Geophysical Research Letters, 2022, 49, .	1.5	7
105	Origins of the SHEBA freshwater anomaly in the Mackenzie River delta. Geophysical Research Letters, 2006, 33, .	1.5	6
106	Interannual variations of light-absorbing particles in snow on Arctic sea ice. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,391.	1.2	6
107	Obtaining Smooth Hydrographic Profiles from a Buoy Deployed in Sea Ice. Journal of Atmospheric and Oceanic Technology, 1992, 9, 812-826.	0.5	5
108	Correction to "Warming of the Arctic Ocean by a strengthened Atlantic Inflow: Model results" Geophysical Research Letters, 1998, 25, 3541-3541.	1.5	5

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109	Biophysical Consequences of a Relaxing Beaufort Gyre. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085990.	1.5	5
110	An Empirical Algorithm for Mitigating the Sea Ice Effect in SMAP Radiometer for Sea Surface Salinity Retrieval in the Arctic Seas. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 11986-11997.	2.3	3
111	Contrasting Sea-Ice Algae Blooms in a Changing Arctic Documented by Autonomous Drifting Buoys. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	1.0	3
112	Upper Ocean Heat Observation using UpTempO buoys during RV <i>Mirai</i> Arctic cruise MR14-05. JAMSTEC Report of Research and Development, 2015, 21, 1-6.	0.2	2
113	Corrigendum to "Dissolved oxygen extrema in the Arctic Ocean halocline from the North Pole to the Lincoln Sea". <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2005, 52, 1988.	0.6	1
114	Evaluation of Surface Conditions from Operational Forecasts Using in situ Saildrone Observations in the Pacific Arctic. <i>Monthly Weather Review</i> , 2022, , .	0.5	1