John Marshall

List of Publications by Year
in descending order

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118 papers	15,944 citations	28274 55 h-index	20961 115 g-index
118 all docs	118 docs citations	118 times ranked	9762 citing authors

#	Article	IF	Citations
1	Exploring Ocean Circulation on Icy Moons Heated From Below. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	24
2	On the effects of the ocean on atmospheric CFC-11 lifetimes and emissions. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2021528118.	7.1	5
3	Water mass transformation and overturning circulation in the Arabian Gulf. Journal of Physical Oceanography, 2021, , .	1.7	4
4	SuppressedpCO₂in the Southern Ocean Due to the Interaction Between Current and Wind. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017884.	2.6	3
5	Seaâ€Ice Melt Driven by Iceâ€Ocean Stresses on the Mesoscale. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016404.	2.6	15
6	Understanding Arctic Ocean Circulation: A Review of Ocean Dynamics in a Changing Climate. Journal of Geophysical Research: Oceans, 2020, 125, e2018JC014378.	2.6	150
7	Antarctic Glacial Melt as a Driver of Recent Southern Ocean Climate Trends. Geophysical Research Letters, 2020, 47, e2019GL086892.	4.0	34
8	Impact of Currentâ€Wind Interaction on Vertical Processes in the Southern Ocean. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016046.	2.6	10
9	Impact of Nearâ€Inertial Waves on Vertical Mixing and Airâ€Sea CO₂ Fluxes in the Southern Ocean. Journal of Geophysical Research: Oceans, 2019, 124, 4605-4617.	2.6	7
10	The â€˜stickyâ€™ ITCZ: ocean-moderated ITCZ shifts. Climate Dynamics, 2019, 53, 1-19.	3.8	36
11	Eddy Compensation Dampens Southern Ocean Sea Surface Temperature Response to Westerly Wind Trends. Geophysical Research Letters, 2019, 46, 4365-4377.	4.0	26
12	A Threeâ€Way Balance in the Beaufort Gyre: The Iceâ€Ocean Governor, Wind Stress, and Eddy Diffusivity. Journal of Geophysical Research: Oceans, 2019, 124, 3107-3124.	2.6	31
13	Contributions of Greenhouse Gas Forcing and the Southern Annular Mode to Historical Southern Ocean Surface Temperature Trends. Geophysical Research Letters, 2018, 45, 1086-1097.	4.0	36
14	Hemispherically asymmetric trade wind changes as signatures of past ITCZ shifts. Quaternary Science Reviews, 2018, 180, 214-228.	3.0	58
15	The Iceâ€Ocean Governor: Iceâ€Ocean Stress Feedback Limits Beaufort Gyre Spinâ€Up. Geophysical Research Letters, 2018, 45, 11,293.	4.0	50
16	Linking Glacialâ€Interglacial States to Multiple Equilibria of Climate. Geophysical Research Letters, 2018, 45, 9160-9170.	4.0	24
17	The Climate Response to Multiple Volcanic Eruptions Mediated by Ocean Heat Uptake: Damping Processes and Accumulation Potential. Journal of Climate, 2018, 31, 8669-8687.	3.2	18
18	The dependence of the oceanâ€™s MOC on mesoscale eddy diffusivities: A model study. Ocean Modelling, 2017, 111, 1-8.	2.4	31

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19	Coupling of Trade Winds with Ocean Circulation Damps ITCZ Shifts. Journal of Climate, 2017, 30, 4395-4411.	3.2	93
20	Twentieth century correlations between extratropical SST variability and ITCZ shifts. Geophysical Research Letters, 2017, 44, 9039-9047.	4.0	28
21	Seasonally derived components of the Canada Basin halocline. Geophysical Research Letters, 2017, 44, 5008-5015.	4.0	41
22	Fast and slow responses of Southern Ocean sea surface temperature to SAM in coupled climate models. Climate Dynamics, 2017, 48, 1595-1609.	3.8	85
23	Observational Inferences of Lateral Eddy Diffusivity in the Halocline of the Beaufort Gyre. Geophysical Research Letters, 2017, 44, 12,331.	4.0	41
24	â€œClimate response functionsâ€•for the Arctic Ocean: aÂproposed coordinated modelling experiment. Geoscientific Model Development, 2017, 10, 2833-2848.	3.6	23
25	Observations, inferences, and mechanisms of the Atlantic Meridional Overturning Circulation: A review. Reviews of Geophysics, 2016, 54, 5-63.	23.0	508
26	Mesoscale modulation of airâ€sea <scp>CO</scp>₂ flux in <scp>D</scp>rake <scp>P</scp>assage. Journal of Geophysical Research: Oceans, 2016, 121, 6635-6649.	2.6	23
27	Southern Ocean warming delayed by circumpolar upwelling and equatorward transport. Nature Geoscience, 2016, 9, 549-554.	12.9	381
28	Circulation and Stirring in the Southeast Pacific Ocean and the Scotia Sea Sectors of the Antarctic Circumpolar Current. Journal of Physical Oceanography, 2016, 46, 2005-2027.	1.7	24
29	Source waters for the highly productive Patagonian shelf in the southwestern Atlantic. Journal of Marine Systems, 2016, 158, 120-128.	2.1	25
30	Freshwater transport in the coupled ocean-atmosphere system: a passive ocean. Ocean Dynamics, 2015, 65, 1029-1036.	2.2	6
31	Antarctic Ocean and Sea Ice Response to Ozone Depletion: A Two-Time-Scale Problem. Journal of Climate, 2015, 28, 1206-1226.	3.2	179
32	Anomalous chlorofluorocarbon uptake by mesoscale eddies in the <scp>D</scp>rake <scp>P</scp>assage region. Journal of Geophysical Research: Oceans, 2015, 120, 1065-1078.	2.6	11
33	Why is there net surface heating over the Antarctic Circumpolar Current?. Ocean Dynamics, 2015, 65, 751-760.	2.2	5
34	The oceanâ€™s role in the transient response of climate to abrupt greenhouse gas forcing. Climate Dynamics, 2015, 44, 2287-2299.	3.8	162
35	The ocean's role in polar climate change: asymmetric Arctic and Antarctic responses to greenhouse gas and ozone forcing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130040.	3.4	114
36	The Interannual Variability of Tropical Precipitation and Interhemispheric Energy Transport. Journal of Climate, 2014, 27, 3377-3392.	3.2	56

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37	Impact of the Atlantic meridional overturning circulation on ocean heat storage and transient climate change. Geophysical Research Letters, 2014, 41, 2108-2116.	4.0	130
38	Rationalizing the Spatial Distribution of Mesoscale Eddy Diffusivity in Terms of Mixing Length Theory. Journal of Physical Oceanography, 2014, 44, 1523-1540.	1.7	42
39	Direct Estimate of Lateral Eddy Diffusivity Upstream of Drake Passage. Journal of Physical Oceanography, 2014, 44, 2593-2616.	1.7	68
40	Climate at high-obliquity. Icarus, 2014, 243, 236-248.	2.5	76
41	Changes in ITCZ location and cross-equatorial heat transport at the Last Glacial Maximum, Heinrich Stadial 1, and the mid-Holocene. Earth and Planetary Science Letters, 2014, 390, 69-79.	4.4	241
42	Have Aerosols Caused the Observed Atlantic Multidecadal Variability?. Journals of the Atmospheric Sciences, 2013, 70, 1135-1144.	1.7	282
43	The Relationship between ITCZ Location and Cross-Equatorial Atmospheric Heat Transport: From the Seasonal Cycle to the Last Glacial Maximum. Journal of Climate, 2013, 26, 3597-3618.	3.2	298
44	Ocean Basin Geometry and the Salinification of the Atlantic Ocean. Journal of Climate, 2013, 26, 6163-6184.	3.2	33
45	Exploring Mechanisms of Variability and Predictability of Atlantic Meridional Overturning Circulation in Two Coupled Climate Models. Journal of Climate, 2012, 25, 4067-4080.	3.2	47
46	On the Relationship between Decadal Buoyancy Anomalies and Variability of the Atlantic Meridional Overturning Circulation. Journal of Climate, 2012, 25, 8009-8030.	3.2	45
47	Controlling spurious diapycnal mixing in eddy-resolving height-coordinate ocean models â€“ Insights from virtual deliberate tracer release experiments. Ocean Modelling, 2012, 45-46, 14-26.	2.4	49
48	Closure of the meridional overturning circulation through Southern Ocean upwelling. Nature Geoscience, 2012, 5, 171-180.	12.9	757
49	Super-parameterization in ocean modeling: Application to deep convection. Ocean Modelling, 2011, 36, 90-101.	2.4	40
50	Scales, Growth Rates, and Spectral Fluxes of Baroclinic Instability in the Ocean. Journal of Physical Oceanography, 2011, 41, 1057-1076.	1.7	173
51	Climate Determinism Revisited: Multiple Equilibria in a Complex Climate Model. Journal of Climate, 2011, 24, 992-1012.	3.2	87
52	The Dependence of Southern Ocean Meridional Overturning on Wind Stress. Journal of Physical Oceanography, 2011, 41, 2261-2278.	1.7	134
53	Enhancement of Mesoscale Eddy Stirring at Steering Levels in the Southern Ocean. Journal of Physical Oceanography, 2010, 40, 170-184.	1.7	126
54	Localization of Deep Water Formation: Role of Atmospheric Moisture Transport and Geometrical Constraints on Ocean Circulation. Journal of Climate, 2010, 23, 1456-1476.	3.2	81

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55	Evidence for Enhanced Eddy Mixing at Middepth in the Southern Ocean. Journal of Physical Oceanography, 2009, 39, 50-69.	1.7	117
56	Explorations of Atmosphereâ€“Oceanâ€“Ice Climates on an Aquaplanet and Their Meridional Energy Transports. Journals of the Atmospheric Sciences, 2009, 66, 1593-1611.	1.7	89
57	Ocean Heat Transport, Sea Ice, and Multiple Climate States: Insights from Energy Balance Models. Journals of the Atmospheric Sciences, 2009, 66, 2828-2843.	1.7	56
58	Understanding the Regional Variability of Eddy Diffusivity in the Pacific Sector of the Southern Ocean. Journal of Physical Oceanography, 2009, 39, 2011-2023.	1.7	43
59	Robustness of an Effective Diffusivity Diagnostic in Oceanic Flows. Journal of Physical Oceanography, 2009, 39, 1993-2009.	1.7	32
60	Sea iceâ€“ocean coupling using a rescaled vertical coordinate zâˆ—. Ocean Modelling, 2008, 24, 1-14.	2.4	72
61	Control of Lower-Limb Overturning Circulation in the Southern Ocean by Diapycnal Mixing and Mesoscale Eddy Transfer. Journal of Physical Oceanography, 2008, 38, 2832-2845.	1.7	61
62	Eddy Modulation of Airâ€“Sea Interaction and Convection. Journal of Physical Oceanography, 2008, 38, 65-83.	1.7	29
63	Mean Climate and Variability of the Atmosphere and Ocean on an Aquaplanet. Journals of the Atmospheric Sciences, 2007, 64, 4270-4286.	1.7	57
64	Effects of vertical variations of thickness diffusivity in an ocean general circulation model. Ocean Modelling, 2007, 18, 122-141.	2.4	117
65	Planet-in-a-Bottle: A Numerical Fluid-Laboratory System. Lecture Notes in Computer Science, 2007, , 1163-1170.	1.3	0
66	The Antarctic Circumpolar Current in Three Dimensions. Journal of Physical Oceanography, 2006, 36, 651-669.	1.7	23
67	The Partitioning of Poleward Heat Transport between the Atmosphere and Ocean. Journals of the Atmospheric Sciences, 2006, 63, 1498-1511.	1.7	111
68	Estimates and Implications of Surface Eddy Diffusivity in the Southern Ocean Derived from Tracer Transport. Journal of Physical Oceanography, 2006, 36, 1806-1821.	1.7	198
69	A model of the upper branch of the meridional overturning of the southern ocean. Progress in Oceanography, 2006, 70, 331-345.	3.2	45
70	Transformed Eulerian-Mean Theory. Part II: Potential Vorticity Homogenization and the Equilibrium of a Wind- and Buoyancy-Driven Zonal Flow. Journal of Physical Oceanography, 2005, 35, 175-187.	1.7	29
71	Impact of Anomalous Ocean Heat Transport on the North Atlantic Oscillation. Journal of Climate, 2005, 18, 4955-4969.	3.2	11
72	Estimating Eddy Stresses by Fitting Dynamics to Observations Using a Residual-Mean Ocean Circulation Model and Its Adjoint. Journal of Physical Oceanography, 2005, 35, 1891-1910.	1.7	152

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73	Atmosphereâ€“Ocean Modeling Exploiting Fluid Isomorphisms. Monthly Weather Review, 2004, 132, 2882-2894.	1.4	61
74	Evaluating carbon sequestration efficiency in an ocean circulation model by adjoint sensitivity analysis. Journal of Geophysical Research, 2004, 109, .	3.3	25
75	What controls the uptake of transient tracers in the Southern Ocean?. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	44
76	Mechanisms of air-sea CO2flux variability in the equatorial Pacific and the North Atlantic. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	134
77	Hydrothermal plume dynamics on Europa: Implications for chaos formation. Journal of Geophysical Research, 2004, 109, .	3.3	66
78	Conservation of properties in a free-surface model. Ocean Modelling, 2004, 6, 221-244.	2.4	78
79	A Laboratory Model of Thermocline Depth and Exchange Fluxes across Circumpolar Fronts*. Journal of Physical Oceanography, 2004, 34, 656-667.	1.7	18
80	Implementation of an Atmosphereâ€“Ocean General Circulation Model on the Expanded Spherical Cube. Monthly Weather Review, 2004, 132, 2845-2863.	1.4	249
81	Residual-Mean Solutions for the Antarctic Circumpolar Current and Its Associated Overturning Circulation. Journal of Physical Oceanography, 2003, 33, 2341-2354.	1.7	383
82	The Role of Neutral Singular Vectors in Midlatitude Airâ€“Sea Coupling. Journal of Climate, 2003, 16, 88-102.	3.2	7
83	Equilibration of a Warm Pumped Lens on aÎ²plane. Journal of Physical Oceanography, 2003, 33, 885-899.	1.7	8
84	Can Eddies Set Ocean Stratification?. Journal of Physical Oceanography, 2002, 32, 26-38.	1.7	73
85	Constructing the Residual Circulation of the ACC from Observations. Journal of Physical Oceanography, 2002, 32, 3315-3327.	1.7	153
86	The Role of Eddy Transfer in Setting the Stratification and Transport of a Circumpolar Current. Journal of Physical Oceanography, 2002, 32, 39-54.	1.7	128
87	Mechanisms of Buoyancy Transport through Mixed Layers and Statistical Signatures from Isobaric Floats. Journal of Physical Oceanography, 2002, 32, 545-557.	1.7	2
88	A Statistical Theory for the â€œPatchinessâ€•of Open-Ocean Deep Convection: The Effect of Preconditioning. Journal of Physical Oceanography, 2002, 32, 599-626.	1.7	14
89	Testing theories of the vertical stratification of the ACC against observations. Dynamics of Atmospheres and Oceans, 2002, 36, 233-246.	1.8	34
90	Mechanisms of Thermohaline Mode Switching with Application to Warm Equable Climates. Journal of Climate, 2002, 15, 2056-2072.	3.2	10

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91	Using Neutral Singular Vectors to Study Low-Frequency Atmospheric Variability. Journals of the Atmospheric Sciences, 2002, 59, 3206-3222.	1.7	10
92	Interannual variability of phytoplankton abundances in the North Atlantic. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 2323-2344.	1.4	127
93	A Study of the Interaction of the North Atlantic Oscillation with Ocean Circulation. Journal of Climate, 2001, 14, 1399-1421.	3.2	315
94	Observations of atmosphere-ocean coupling in the North Atlantic. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 1893-1916.	2.7	99
95	North Atlantic climate variability: phenomena, impacts and mechanisms. International Journal of Climatology, 2001, 21, 1863-1898.	3.5	860
96	Representation of Eddies in Primitive Equation Models by a PV Flux. Journal of Physical Oceanography, 2000, 30, 2481-2503.	1.7	42
97	Open-ocean convection: Observations, theory, and models. Reviews of Geophysics, 1999, 37, 1-64.	23.0	932
98	Efficient ocean modeling using non-hydrostatic algorithms. Journal of Marine Systems, 1998, 18, 115-134.	2.1	39
99	A Comparison of Implicitly Parallel Multithreaded and Data-Parallel Implementations of an Ocean Model. Journal of Parallel and Distributed Computing, 1998, 48, 1-51.	4.1	5
100	The influence of the ambient flow on the spreading of convected water masses. Journal of Marine Research, 1998, 56, 107-139.	0.3	25
101	Gravitational, Symmetric, and Baroclinic Instability of the Ocean Mixed Layer. Journal of Physical Oceanography, 1998, 28, 634-658.	1.7	267
102	Representation of Topography by Shaved Cells in a Height Coordinate Ocean Model. Monthly Weather Review, 1997, 125, 2293-2315.	1.4	520
103	Specification of Eddy Transfer Coefficients in Coarse-Resolution Ocean Circulation Models*. Journal of Physical Oceanography, 1997, 27, 381-402.	1.7	425
104	Restratification after Deep Convection. Journal of Physical Oceanography, 1997, 27, 2276-2287.	1.7	85
105	A finite-volume, incompressible Navier Stokes model for studies of the ocean on parallel computers. Journal of Geophysical Research, 1997, 102, 5753-5766.	3.3	1,968
106	Hydrostatic, quasi-hydrostatic, and nonhydrostatic ocean modeling. Journal of Geophysical Research, 1997, 102, 5733-5752.	3.3	1,089
107	Representation of convective plumes by vertical adjustment. Journal of Geophysical Research, 1996, 101, 18175-18182.	3.3	74
108	Dynamics of Isolated Convective Regions in the Ocean. Journal of Physical Oceanography, 1996, 26, 1721-1734.	1.7	167

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109	Integral Effects of Deep Convection. Journal of Physical Oceanography, 1995, 25, 855-872.	1.7	156
110	The growth of convective plumes at seafloor hot springs. Journal of Marine Research, 1995, 53, 1025-1057.	0.3	41
111	Regimes and scaling laws for rotating deep convection in the ocean. Dynamics of Atmospheres and Oceans, 1995, 21, 227-256.	1.8	41
112	Laboratory and Numerical Experiments in Oceanic Convection. , 1994, , 173-201.		12
113	Convection with Rotation in a Neutral Ocean: A Study of Open-Ocean Deep Convection. Journal of Physical Oceanography, 1993, 23, 1009-1039.	1.7	258
114	A Heton Model of the Spreading Phase of Open-Ocean Deep Convection. Journal of Physical Oceanography, 1993, 23, 1040-1056.	1.7	105
115	Toward a Dynamical Understanding of Planetary-Scale Flow Regimes. Journals of the Atmospheric Sciences, 1993, 50, 1792-1818.	1.7	236
116	Potential Vorticity Constraints on the Dynamics and Hydrography of the Southern Ocean. Journal of Physical Oceanography, 1993, 23, 465-487.	1.7	96
117	A Note on Rotational and Divergent Eddy Fluxes. Journal of Physical Oceanography, 1981, 11, 1677-1680.	1.7	141
118	Observations of Upwelling and Downwelling Around Antarctica Mediated by Sea Ice. Frontiers in Marine Science, 0, 9, .	2.5	4