John M Toole

List of Publications by Year
in descending order

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139	11,316	22132	30058
papers	citations	59 h-index	103 g-index

139	139	139	6534
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spatial Variability of Turbulent Mixing in the Abyssal Ocean. Science, 1997, 276, 93-96.	6.0	973
2	Evidence for enhanced mixing over rough topography in the abyssal ocean. Nature, 2000, 403, 179-182.	13.7	594
3	Finescale Parameterizations of Turbulent Dissipation. Journal of Physical Oceanography, 1995, 25, 306-328.	0.7	373
4	Beaufort Gyre freshwater reservoir: State and variability from observations. Journal of Geophysical Research, 2009, 114, .	3.3	364
5	On the parameterization of equatorial turbulence. Journal of Geophysical Research, 1988, 93, 1199-1218.	3.3	329
6	Arctic Ocean Warming Contributes to Reduced Polar Ice Cap. Journal of Physical Oceanography, 2010, 40, 2743-2756.	0.7	284
7	Estimates of Diapycnal Mixing in the Abyssal Ocean. Science, 1994, 264, 1120-1123.	6.0	273
8	On the Future of Argo: A Global, Full-Depth, Multi-Disciplinary Array. Frontiers in Marine Science, 2019, 6, .	1.2	235
9	A hydrographic section across the subtropical South Indian Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 1993, 40, 1973-2019.	0.6	225
10	Internal Tide Reflection and Turbulent Mixing on the Continental Slope. Journal of Physical Oceanography, 2004, 34, 1117-1134.	0.7	223
11	Toward Quantifying the Increasing Role of Oceanic Heat in Sea Ice Loss in the New Arctic. Bulletin of the American Meteorological Society, 2015, 96, 2079-2105.	1.7	217
12	Observations of the Pacific North Equatorial Current Bifurcation at the Philippine Coast. Journal of Physical Oceanography, 1990, 20, 307-318.	0.7	197
13	Buoyancy Forcing by Turbulence above Rough Topography in the Abyssal Brazil Basin*. Journal of Physical Oceanography, 2001, 31, 3476-3495.	0.7	196
14	Automated Ice-Tethered Profilers for Seawater Observations under Pack Ice in All Seasons. Journal of Atmospheric and Oceanic Technology, 2008, 25, 2091-2105.	0.5	185
15	The Ice-Tethered Profiler: Argo of the Arctic. Oceanography, 2011, 24, 126-135.	0.5	183
16	Influences of the ocean surface mixed layer and thermohaline stratification on Arctic Sea ice in the central Canada Basin. Journal of Geophysical Research, 2010, 115, .	3.3	179
17	Tidally Driven Vorticity, Diurnal Shear, and Turbulence atop Fieberling Seamount. Journal of Physical Oceanography, 1997, 27, 2663-2693.	0.7	169
18	An assessment of Arctic Ocean freshwater content changes from the 1990s to the 2006â€“2008 period. Deep-Sea Research Part I: Oceanographic Research Papers, 2011, 58, 173-185.	0.6	162

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19	Intense mixing of Antarctic Bottom Water in the equatorial Atlantic Ocean. Nature, 1996, 380, 54-57.	13.7	155
20	Enhanced Diapycnal Mixing by Salt Fingers in the Thermocline of the Tropical Atlantic. Science, 2005, 308, 685-688.	6.0	151
21	Arctic Ocean basin liquid freshwater storage trend 1992â€“2012. Geophysical Research Letters, 2014, 41, 961-968.	1.5	139
22	Near-boundary mixing above the flanks of a midlatitude seamount. Journal of Geophysical Research, 1997, 102, 947-959.	3.3	135
23	State of the Climate in 2010. Bulletin of the American Meteorological Society, 2011, 92, S1-S236.	1.7	135
24	Mechanisms of Pacific Summer Water variability in the Arctic's Central Canada Basin. Journal of Geophysical Research: Oceans, 2014, 119, 7523-7548.	1.0	134
25	The Energy Balance in a Warm-Core Ring's Near-Inertial Critical Layer. Journal of Physical Oceanography, 1995, 25, 942-957.	0.7	129
26	State of the Climate in 2012. Bulletin of the American Meteorological Society, 2013, 94, S1-S258.	1.7	129
27	On the dynamics and effects of double-diffusively driven intrusions. Progress in Oceanography, 1981, 10, 123-145.	1.5	125
28	The anatomy of the Antarctic polar front in the Drake Passage. Journal of Geophysical Research, 1978, 83, 6093-6113.	3.3	115
29	Flow of deep and bottom waters in the Pacific at 10Â°N. Deep-Sea Research Part I: Oceanographic Research Papers, 1993, 40, 371-394.	0.6	114
30	Eddies in the Canada Basin, Arctic Ocean, Observed from Ice-Tethered Profilers. Journal of Physical Oceanography, 2008, 38, 133-145.	0.7	113
31	Rates and mechanisms of turbulent dissipation and mixing in the Southern Ocean: Results from the Diapycnal and Isopycnal Mixing Experiment in the Southern Ocean (DIMES). Journal of Geophysical Research: Oceans, 2013, 118, 2774-2792.	1.0	112
32	The dissolved silica budget as a constraint on the meridional overturning circulation of the Indian Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 1997, 44, 879-906.	0.6	111
33	The response of the western equatorial Pacific Ocean to westerly wind bursts during November 1989 to January 1990. Journal of Geophysical Research, 1992, 97, 14289-14303.	3.3	110
34	Turbulence and Diapycnal Mixing in Drake Passage. Journal of Physical Oceanography, 2012, 42, 2143-2152.	0.7	108
35	Mean circulation of the upper layers of the western equatorial Pacific Ocean. Journal of Geophysical Research, 1993, 98, 22495-22520.	3.3	105
36	Analysis of the Beaufort Gyre Freshwater Content in 2003â€“2018. Journal of Geophysical Research: Oceans, 2019, 124, 9658-9689.	1.0	103

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37	Meridional overturning and large-scale circulation of the Indian Ocean. Journal of Geophysical Research, 2000, 105, 26117-26134.	3.3	100
38	Characterizing the eddy field in the <scp>A</scp>rctic <scp>O</scp>cean halocline. Journal of Geophysical Research: Oceans, 2014, 119, 8800-8817.	1.0	98
39	Diapycnal Mixing in the Antarctic Circumpolar Current. Journal of Physical Oceanography, 2011, 41, 241-246.	0.7	95
40	Warming of the interior Arctic Ocean linked to sea ice losses at the basin margins. Science Advances, 2018, 4, eaat6773.	4.7	94
41	On the circulation of the upper waters in the western equatorial Pacific Ocean. Deep-sea Research Part A, Oceanographic Research Papers, 1988, 35, 1451-1482.	1.6	90
42	The Climode Field Campaign: Observing the Cycle of Convection and Restratification over the Gulf Stream. Bulletin of the American Meteorological Society, 2009, 90, 1337-1350.	1.7	86
43	Variation of the western equatorial Pacific Ocean, 1986â€“1988. Journal of Geophysical Research, 1992, 97, 5423-5445.	3.3	85
44	Variability in the Western Equatorial Pacific Ocean during the 1986â€“87 El NiÃ±o/Southern Oscillation Event. Journal of Physical Oceanography, 1990, 20, 190-208.	0.7	83
45	Mixing Associated with Sills in a Canyon on the Midocean Ridge Flank*. Journal of Physical Oceanography, 2005, 35, 1370-1381.	0.7	83
46	Surface freshening in the Arctic Ocean's Eurasian Basin: An apparent consequence of recent change in the wind-driven circulation. Journal of Geophysical Research, 2011, 116, .	3.3	83
47	Interannual atmospheric variability forced by the deep equatorial Atlantic Ocean. Nature, 2011, 473, 497-500.	13.7	83
48	The water masses and circulation at 10Â°N in the Pacific. Deep-Sea Research Part I: Oceanographic Research Papers, 1996, 43, 501-544.	0.6	82
49	The mean structure and variability of the Mindanao Current at 8Â°N. Journal of Geophysical Research, 1995, 100, 18421.	3.3	80
50	Horizontal Density Structure and Restratification of the Arctic Ocean Surface Layer. Journal of Physical Oceanography, 2012, 42, 659-668.	0.7	80
51	Transport of the North Atlantic Deep Western Boundary Current about 39Â°N, 70Â°W: 2004â€“2008. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 1768-1780.	0.6	79
52	The Development of a Fine- and Microstructure Profiler. Journal of Atmospheric and Oceanic Technology, 1988, 5, 484-500.	0.5	77
53	Revisiting the South Pacific subtropical circulation: A synthesis of World Ocean Circulation Experiment observations along 32Â°S. Journal of Geophysical Research, 2001, 106, 19481-19513.	3.3	77
54	A Moored Profiling Instrument*. Journal of Atmospheric and Oceanic Technology, 1999, 16, 1816-1829.	0.5	75

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55	Volume transport and property distributions of the Mozambique Channel. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 1481-1511.	0.6	75
56	Ekman Veering, Internal Waves, and Turbulence Observed under Arctic Sea Ice. Journal of Physical Oceanography, 2014, 44, 1306-1328.	0.7	73
57	Seasonal Kinetic Energy Variability of Near-Inertial Motions. Journal of Physical Oceanography, 2009, 39, 1035-1049.	0.7	69
58	A near-synoptic survey of the Southwest Indian Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2003, 50, 1893-1931.	0.6	68
59	The Partition of Finescale Energy into Internal Waves and Subinertial Motions. Journal of Physical Oceanography, 2003, 33, 234-248.	0.7	62
60	Interannual sea level variability in the western North Atlantic: Regional forcing and remote response. Geophysical Research Letters, 2013, 40, 5915-5919.	1.5	61
61	The WOCE-era 3-D Pacific Ocean circulation and heat budget. Progress in Oceanography, 2009, 82, 281-325.	1.5	57
62	Evolution of the eddy field in the Arctic Ocean's Canada Basin, 2005â€“2015. Geophysical Research Letters, 2016, 43, 8106-8114.	1.5	57
63	Sensor Corrections for Sea-Bird SBE-41CP and SBE-41 CTDs. Journal of Atmospheric and Oceanic Technology, 2007, 24, 1117-1130.	0.5	56
64	A nearâ€inertial mode observed within a Gulf Stream warmâ€core ring. Journal of Geophysical Research: Oceans, 2013, 118, 1797-1806.	1.0	56
65	The Beaufort Gyre intensification and stabilization: A model-observation synthesis. Journal of Geophysical Research: Oceans, 2016, 121, 7933-7952.	1.0	54
66	Spatial variability of the Arctic Ocean's double-diffusive staircase. Journal of Geophysical Research: Oceans, 2017, 122, 980-994.	1.0	54
67	Overview of the MOSAiC expedition: Physical oceanography. Elementa, 2022, 10, .	1.1	54
68	Eddy-induced variability in Southern Ocean abyssal mixing on climatic timescales. Nature Geoscience, 2014, 7, 577-582.	5.4	51
69	Moored observations of the <scp>D</scp>eep <scp>W</scp>estern <scp>B</scp>oundary <scp>C</scp>urrent in the <scp>NW</scp><scp>A</scp>tlantic: 2004â€“2014. Journal of Geophysical Research: Oceans, 2017, 122, 7488-7505.	1.0	50
70	Sea ice, winter convection, and the temperature minimum layer in the Southern Ocean. Journal of Geophysical Research, 1981, 86, 8037-8047.	3.3	49
71	Reduced Antarctic meridional overturning circulation reaches the North Atlantic Ocean. Geophysical Research Letters, 2008, 35, .	1.5	45
72	Sensor Response Mismatches and Lag Correction Techniques for Temperature-Salinity Profilers. Journal of Physical Oceanography, 1980, 10, 1122-1130.	0.7	44

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73	Intrusion Characteristics in the Antarctic Polar Front. Journal of Physical Oceanography, 1981, 11, 780-793.	0.7	43
74	Polar Ocean Observations: A Critical Gap in the Observing System and Its Effect on Environmental Predictions From Hours to a Season. Frontiers in Marine Science, 2019, 6, .	1.2	43
75	Annual and Semiannual Cycle of Equatorial Atlantic Circulation Associated with Basin-Mode Resonance. Journal of Physical Oceanography, 2016, 46, 3011-3029.	0.7	40
76	Heat and fresh water budgets of the Indian Oceanâ€"revisited. Deep-sea Research Part A, Oceanographic Research Papers, 1985, 32, 917-928.	1.6	38
77	Anomalous Characteristics of Equatorial Thermohaline Finestructure. Journal of Physical Oceanography, 1981, 11, 871-876.	0.7	37
78	Assessing algal biomass and bio-optical distributions in perennially ice-covered polar ocean ecosystems. Polar Science, 2014, 8, 73-85.	0.5	37
79	Recent Wind-Driven Variability in Atlantic Water Mass Distribution and Meridional Overturning Circulation. Journal of Physical Oceanography, 2017, 47, 633-647.	0.7	34
80	Tracking Labrador Sea Water property signals along the Deep Western Boundary Current. Journal of Geophysical Research: Oceans, 2017, 122, 5348-5366.	1.0	34
81	Ice and ocean velocity in the Arctic marginal ice zone: Ice roughness and momentum transfer. Elementa, 2017, 5, .	1.1	34
82	Meridional variability of turbulence through the equatorial undercurrent. Journal of Geophysical Research, 1989, 94, 18003-18009.	3.3	32
83	Seasonal circulation in the south Indian Ocean. Geophysical Research Letters, 1997, 24, 2773-2776.	1.5	31
84	Descriptive oceanography during the Frontal Airâ€Sea Interaction Experiment: Mediumâ€to largeâ€scale variability. Journal of Geophysical Research, 1991, 96, 8553-8567.	3.3	30
85	Fine structure and microstructure characteristics across the northwest Atlantic Subtropical Front. Journal of Geophysical Research, 1996, 101, 14111-14121.	3.3	28
86	Water-Mass and Transport Variability at 110Â°W in the Equatorial Pacific. Journal of Physical Oceanography, 1983, 13, 153-168.	0.7	27
87	Upper Ocean Shear and Density Variability at the Equator during TROPIC HEAT. Journal of Physical Oceanography, 1987, 17, 1397-1406.	0.7	27
88	Evolution of a Canada Basin iceâ€ocean boundary layer and mixed layer across a developing thermodynamically forced marginal ice zone. Journal of Geophysical Research: Oceans, 2016, 121, 6223-6250.	1.0	27
89	Ice-tethered profilers sample the upper Arctic Ocean. Eos, 2006, 87, 434.	0.1	24
90	Recent changes in the Labrador Sea Water within the Deep Western Boundary Current southeast of Cape Cod. Deep-Sea Research Part I: Oceanographic Research Papers, 2011, 58, 1019-1030.	0.6	23

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91	Temporal Characteristics of Abyssal Finescale Motions above Rough Bathymetry. Journal of Physical Oceanography, 2007, 37, 409-427.	0.7	22
92	Coherence of Western Boundary Pressure at the RAPID WAVE Array: Boundary Wave Adjustments or Deep Western Boundary Current Advection?. Journal of Physical Oceanography, 2013, 43, 744-765.	0.7	22
93	Small-scale structures in the north-west Atlantic sub-tropical front. Nature, 1987, 327, 47-49.	13.7	21
94	Near-Inertial Internal Wave Field in the Canada Basin from Ice-Tethered Profilers. Journal of Physical Oceanography, 2014, 44, 413-426.	0.7	21
95	Stirring by deep cyclones and the evolution of Denmark strait overflow water observed at line W. Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 109, 10-26.	0.6	21
96	The euphotic zone under Arctic Ocean sea ice: Vertical extents and seasonal trends. Limnology and Oceanography, 2017, 62, 1910-1934.	1.6	21
97	Forcing of the Atlantic Equatorial Deep Jets Derived from Observations. Journal of Physical Oceanography, 2016, 46, 3549-3562.	0.7	20
98	Transports across the Tasman Sea from WOCE repeat sections: The East Australian Current 1990â€“94. New Zealand Journal of Marine and Freshwater Research, 1997, 31, 469-475.	0.8	19
99	Ice-Tethered Profiler Measurements of Dissolved Oxygen under Permanent Ice Cover in the Arctic Ocean. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1936-1949.	0.5	19
100	Time-Dependent Internal Energy Budgets of the Tropical Warm Water Pools. Journal of Climate, 2004, 17, 1398-1410.	1.2	18
101	Evolution and formation of North Atlantic Eighteen Degree Water in the Sargasso Sea from moored data. Deep-Sea Research Part II: Topical Studies in Oceanography, 2013, 91, 11-24.	0.6	18
102	Evidence for the Maintenance of Slowly Varying Equatorial Currents by Intraseasonal Variability. Geophysical Research Letters, 2018, 45, 1923-1929.	1.5	18
103	How Variable Is Mixing Efficiency in the Abyss?. Geophysical Research Letters, 2020, 47, e2019GL086813.	1.5	18
104	On the Benefit of Current and Future ALPS Data for Improving Arctic Coupled Ocean-Sea Ice State Estimation. Oceanography, 2017, 30, 69-73.	0.5	18
105	Motion tracking in an acoustic point-measurement current meter. , 2010, , .		17
106	Variability in the Deep Western Boundary Current: Local versus remote forcing. Journal of Geophysical Research, 2012, 117, .	3.3	17
107	Turbulent Mixing in the Ocean. , 1998, , 171-190.		17
108	Finescale Velocity-Density Characteristics and Richardson Number Statistics of the Eastern Equatorial Pacific. Journal of Physical Oceanography, 1984, 14, 712-726.	0.7	15

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109	100 Years of Progress in Ocean Observing Systems. Meteorological Monographs, 2019, 59, 3.1-3.46.	5.0	15
110	Ocean Circulation and Variability Beneath NioghalvfjerdsbrÃ¦ (79 North Glacier) Ice Tongue. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016091.	1.0	15
111	A fast responding temperature measurement system for CTD applications. Ocean Engineering, 1980, 7, 413-427.	1.9	14
112	A double-diffusive interface tank for dynamic-response studies. Journal of Marine Research, 2005, 63, 263-289.	0.3	14
113	Internal Waves in the Arctic: Influence of Ice Concentration, Ice Roughness, and Surface Layer Stratification. Journal of Geophysical Research: Oceans, 2018, 123, 5571-5586.	1.0	14
114	Observations of Horizontal Velocities and Vertical Displacements in the Equatorial Pacific Ocean Associated with the Early Stages of the 1982/83 El NiÃ±o. Journal of Physical Oceanography, 1984, 14, 948-959.	0.7	13
115	Enhanced Diapycnal Diffusivity in Intrusive Regions of the Drake Passage. Journal of Physical Oceanography, 2016, 46, 1309-1321.	0.7	13
116	Sea surfacepCO₂and O₂dynamics in the partially ice-covered Arctic Ocean. Journal of Geophysical Research: Oceans, 2017, 122, 1425-1438.	1.0	12
117	Eastern Pacific Ocean circulation near the onset of the 1982â€“1983 El NiÃ±o. Journal of Geophysical Research, 1986, 91, 8428-8436.	3.3	11
118	Evaluating salt-fingering theories. Journal of Marine Research, 2008, 66, 413-440.	0.3	11
119	Vertical kinetic energy and turbulent dissipation in the ocean. Geophysical Research Letters, 2015, 42, 7639-7647.	1.5	11
120	Hydrographic conditions in the Eastern Pacific before, during and after the 1982/83 El NiÃ±o. Progress in Oceanography, 1987, 19, 1-47.	1.5	10
121	Processing of velocity observations from Ice-Tethered Profilers. , 2015, , .		8
122	The Interaction of Recirculation Gyres and a Deep Boundary Current. Journal of Physical Oceanography, 2018, 48, 573-590.	0.7	7
123	Quasi-Lagrangian observations of the upper ocean response to wintertime forcing in the Gulf Stream. Deep-Sea Research Part II: Topical Studies in Oceanography, 2013, 91, 25-34.	0.6	6
124	A Barotropic Vorticity Budget for the Subtropical North Atlantic Based on Observations. Journal of Physical Oceanography, 2019, 49, 2781-2797.	0.7	6
125	Biological and physical controls on the flux and characteristics of sinking particles on the <scp>N</scp>orthwest <scp>A</scp>tlantic margin. Journal of Geophysical Research: Oceans, 2017, 122, 4539-4553.	1.0	6
126	Near equatorial CTD observations at 85Â°W in October 1982. Journal of Geophysical Research, 1985, 90, 929-933.	3.3	5

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127	Thermohaline structure and zonal pressure gradient in the western equatorial Pacific. Journal of Geophysical Research, 1990, 95, 7279-7288.	3.3	5
128	Noise in Ice-Tethered Profiler and McLane Moored Profiler velocity measurements. , 2011, , .		5
129	The Arctic and Subarctic Oceans/Seas. International Geophysics, 2013, 103, 443-470.	0.6	5
130	Two Decades of Full-Depth Current Velocity Observations From a Moored Observatory in the Central Equatorial Atlantic at 0Â°N, 23Â°W. Frontiers in Marine Science, 0, 9, .	1.2	5
131	Implementation of a titanium strain gauge pressure transducer for CTD applications. Deep-Sea Research Part I: Oceanographic Research Papers, 1993, 40, 1009-1021.	0.6	4
132	An array of ice-based observatories for Arctic studies. Eos, 2004, 85, 484.	0.1	4
133	Lithogenic Particle Transport Trajectories on the Northwest Atlantic Margin. Journal of Geophysical Research: Oceans, 2021, 126, .	1.0	4
134	WOCE, interbasin exchanges, and marginal sea overflows. Eos, 1987, 68, 2.	0.1	3
135	A Wire-Guided, Free-Fall System to Facilitate Shipborne Hydrographic Profiling. Journal of Atmospheric and Oceanic Technology, 1997, 14, 667-675.	0.5	3
136	An analysis of Atlantic water in the Arctic Ocean using the Arctic subpolar gyre state estimate and observations. Progress in Oceanography, 2021, 198, 102685.	1.5	3
137	Flux measurements from an Ice-tethered profiler: First look. , 2011, , .		2
138	Three-Axis Tilt for Articulated Profiler. , 2018, , .		2
139	Continued Development and Evaluation of the D-2 Inc. Hybrid CTD Sensor. , 2021, , .		0