

William Dewar

List of Publications by Year in descending order

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108
papers

2,573
citations

236925

25
h-index

243625

44
g-index

117
all docs

117
docs citations

117
times ranked

2088
citing authors

#	ARTICLE	IF	CITATIONS
1	Submesoscale Instability and Generation of Mesoscale Anticyclones near a Separation of the California Undercurrent. <i>Journal of Physical Oceanography</i> , 2015, 45, 613-629.	1.7	179
2	Sea Level Expression of Intrinsic and Forced Ocean Variabilities at Interannual Time Scales. <i>Journal of Climate</i> , 2011, 24, 5652-5670.	3.2	134
3	Some Effects of the Wind on Rings. <i>Journal of Physical Oceanography</i> , 1987, 17, 1653-1667.	1.7	111
4	Does the marine biosphere mix the ocean?. <i>Journal of Marine Research</i> , 2006, 64, 541-561.	0.3	111
5	On "Too Fast" Baroclinic Planetary Waves in the General Circulation. <i>Journal of Physical Oceanography</i> , 1998, 28, 1739-1758.	1.7	81
6	An analytical theory of distributed axisymmetric barotropic vortices on the $\hat{\tau}^2$ -plane. <i>Journal of Fluid Mechanics</i> , 1994, 269, 301-321.	3.4	73
7	Vertical Mixing and Cabbeling in Layered Models. <i>Journal of Physical Oceanography</i> , 1998, 28, 1458-1480.	1.7	70
8	Topography and barotropic transport control by bottom friction. <i>Journal of Marine Research</i> , 1998, 56, 295-328.	0.3	67
9	On the Stability of Oceanic Rings. <i>Journal of Physical Oceanography</i> , 1995, 25, 1467-1487.	1.7	59
10	The Effects of Mesoscale Ocean-Atmosphere Coupling on the Large-Scale Ocean Circulation. <i>Journal of Climate</i> , 2009, 22, 4066-4082.	3.2	55
11	Dynamical Response of the Oceanic Eddy Field to the North Atlantic Oscillation: A Model-Data Comparison. <i>Journal of Physical Oceanography</i> , 2004, 34, 2615-2629.	1.7	52
12	Meddy-Seamount Interactions: Implications for the Mediterranean Salt Tongue. <i>Journal of Physical Oceanography</i> , 2003, 33, 2446-2461.	1.7	50
13	A Quasi-Geostrophic Coupled Model (Q-GCM). <i>Monthly Weather Review</i> , 2003, 131, 2261-2278.	1.4	48
14	Mechanisms of Decadal Variability of the Wind-Driven Ocean Circulation. <i>Journal of Physical Oceanography</i> , 2005, 35, 512-531.	1.7	48
15	Topographic inviscid dissipation of balanced flow. <i>Ocean Modelling</i> , 2010, 32, 1-13.	2.4	47
16	Centrifugal Instability and Mixing in the California Undercurrent. <i>Journal of Physical Oceanography</i> , 2015, 45, 1224-1241.	1.7	46
17	Seasonal Prediction of Sea Surface Temperature Anomalies Using a Suite of 13 Coupled Atmosphere-Ocean Models. <i>Journal of Climate</i> , 2006, 19, 6069-6088.	3.2	43
18	Geostrophic Circulation in the Tropical North Pacific Ocean Based on Argo Profiles. <i>Journal of Physical Oceanography</i> , 2014, 44, 558-575.	1.7	41

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19	Baroclinic Eddy Interaction with Isolated Topography. <i>Journal of Physical Oceanography</i> , 2002, 32, 2789-2805.	1.7	40
20	Influence of Topography on the Propagation of Isolated Eddies. <i>Journal of Physical Oceanography</i> , 2002, 32, 2848-2869.	1.7	36
21	Numerical Investigations of Seasonal and Interannual Variability of North Pacific Subtropical Mode Water and Its Implications for Pacific Climate Variability. <i>Journal of Climate</i> , 2011, 24, 2648-2665.	3.2	34
22	Numerical simulations of turbulent thermal, bubble and hybrid plumes. <i>Ocean Modelling</i> , 2015, 90, 16-28.	2.4	33
23	Subsurface Energetics of the Gulf Stream near the Charleston Bump. <i>Journal of Physical Oceanography</i> , 1985, 15, 1771-1789.	1.7	31
24	Gulf Stream Dynamics. Part II: Eddy Energetics at 73°W. <i>Journal of Physical Oceanography</i> , 1989, 19, 1574-1587.	1.7	29
25	The Dynamics of Barotropically Dominated Rings. <i>Journal of Physical Oceanography</i> , 1994, 24, 5-29.	1.7	29
26	Nonlinear Midlatitude Ocean Adjustment. <i>Journal of Physical Oceanography</i> , 2003, 33, 1057-1082.	1.7	27
27	Eighteen Degree Water formation within the Gulf Stream during CLIMODE. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2013, 91, 1-10.	1.4	26
28	Primitive Equation Instability of Wide Oceanic Rings. Part I: Linear Theory. <i>Journal of Physical Oceanography</i> , 1997, 27, 941-962.	1.7	25
29	Calculation of Pressure in Ocean Simulations. <i>Journal of Physical Oceanography</i> , 1998, 28, 577-588.	1.7	25
30	On Ocean Dynamics in Midlatitude Climate. <i>Journal of Climate</i> , 2001, 14, 4380-4397.	3.2	25
31	On the Cylinder Collapse Problem, Mixing, and the Merger of Isolated Eddies. <i>Journal of Physical Oceanography</i> , 1990, 20, 1563-1575.	1.7	24
32	Intergyre Communication in a Three-Layer Model. <i>Journal of Physical Oceanography</i> , 1993, 23, 855-878.	1.7	24
33	Primitive-Equation Instability of Wide Oceanic Rings. Part II: Numerical Studies of Ring Stability. <i>Journal of Physical Oceanography</i> , 1999, 29, 1744-1758.	1.7	24
34	The Ventilated Pool: A Model of Subtropical Mode Water. <i>Journal of Physical Oceanography</i> , 2005, 35, 137-150.	1.7	24
35	Scattering of gravity waves by potential vorticity in a shallow-water fluid. <i>Journal of Fluid Mechanics</i> , 2010, 663, 478-506.	3.4	24
36	Dynamics of multiphase turbulent plumes with hybrid buoyancy sources in stratified environments. <i>Physics of Fluids</i> , 2016, 28, .	4.0	24

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37	Effects of rotation on turbulent buoyant plumes in stratified environments. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 5397-5417.	2.6	24
38	Particle trajectories and simple models of transport in coherent vortices. <i>Dynamics of Atmospheres and Oceans</i> , 1985, 9, 215-252.	1.8	23
39	CheapAML: A Simple, Atmospheric Boundary Layer Model for Use in Ocean-Only Model Calculations. <i>Monthly Weather Review</i> , 2013, 141, 809-821.	1.4	23
40	The Propagation of Submesoscale Coherent Vortices. <i>Journal of Physical Oceanography</i> , 1995, 25, 1745-1770.	1.7	22
41	Dynamical Origin of Low-Frequency Variability in a Highly Nonlinear Midlatitude Coupled Model. <i>Journal of Climate</i> , 2006, 19, 6391-6408.	3.2	22
42	Kelvin wave hydraulic control induced by interactions between vortices and topography. <i>Journal of Fluid Mechanics</i> , 2011, 687, 194-208.	3.4	22
43	A Review on Multiphase Underwater Jets and Plumes: Droplets, Hydrodynamics, and Chemistry. <i>Reviews of Geophysics</i> , 2020, 58, e2020RG000703.	23.0	22
44	Mixed layers in gulf stream rings. <i>Dynamics of Atmospheres and Oceans</i> , 1986, 10, 1-29.	1.8	21
45	Arrested fronts. <i>Journal of Marine Research</i> , 1991, 49, 21-52.	0.3	21
46	Decadal Variability of the Midlatitude Climate System Driven by the Ocean Circulation. <i>Journal of Climate</i> , 2006, 19, 1149-1166.	3.2	21
47	North Atlantic Barotropic Vorticity Balances in Numerical Models. <i>Journal of Physical Oceanography</i> , 2016, 46, 289-303.	1.7	21
48	On the Potential Vorticity Structure of Weakly Ventilated Isopycnals: A Theory of Subtropical Mode Water Maintenance. <i>Journal of Physical Oceanography</i> , 1986, 16, 1204-1216.	1.7	20
49	Do fast gravity waves interact with geostrophic motions?. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1995, 42, 1063-1081.	1.4	20
50	The Energetics of Centrifugal Instability. <i>Journal of Physical Oceanography</i> , 2015, 45, 1554-1573.	1.7	20
51	Mode waters and subduction rates in a high-resolution South Atlantic simulation. <i>Journal of Marine Research</i> , 1999, 57, 213-244.	0.3	19
52	Planetary Shock Waves. <i>Journal of Physical Oceanography</i> , 1987, 17, 470-482.	1.7	18
53	Spontaneous Shocks. <i>Journal of Physical Oceanography</i> , 1992, 22, 505-522.	1.7	17
54	Almost symmetric solitary eddies in a two-layer ocean. <i>Journal of Fluid Mechanics</i> , 1992, 238, 633-656.	3.4	17

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55	Submesoscale generation by boundaries. <i>Journal of Marine Research</i> , 2011, 69, 501-522.	0.3	17
56	Freshening of Subsurface Waters in the Northwest Pacific Subtropical Gyre: Observations and Dynamics. <i>Journal of Physical Oceanography</i> , 2013, 43, 2733-2751.	1.7	17
57	Diagnosing Cross-Scale Kinetic Energy Exchanges From Two Submesoscale Permitting Ocean Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2019MS001923.	3.8	17
58	A nonlinear, time-dependent thermocline theory. <i>Journal of Marine Research</i> , 1989, 47, 1-31.	0.3	16
59	Ventilating Warm Rings: Theory and Energetics. <i>Journal of Physical Oceanography</i> , 1987, 17, 2219-2231.	1.7	15
60	On the Propagation of Baroclinic Waves in the General Circulation. <i>Journal of Physical Oceanography</i> , 2000, 30, 2637-2649.	1.7	15
61	Local Sensitivities of the Gulf Stream Separation. <i>Journal of Physical Oceanography</i> , 2017, 47, 353-373.	1.7	14
62	Haline Circulation: Bifurcation and Chaos. <i>Journal of Physical Oceanography</i> , 1996, 26, 2093-2106.	1.7	13
63	Spatiotemporal Patterns of Chaos in the Atlantic Overturning Circulation. <i>Geophysical Research Letters</i> , 2019, 46, 7509-7517.	4.0	13
64	The nonlinear spin-up of a stratified ocean. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1984, 30, 169-197.	1.2	12
65	Convection in Small Basins. <i>Journal of Physical Oceanography</i> , 2002, 32, 2766-2788.	1.7	12
66	Fluid flow in loops driven by freshwater and heat fluxes. <i>Journal of Fluid Mechanics</i> , 1995, 297, 153-191.	3.4	11
67	Volume and Potential Vorticity Budgets of Eighteen Degree Water. <i>Journal of Physical Oceanography</i> , 2013, 43, 2309-2321.	1.7	11
68	Ventilating Beta Plane Leases. <i>Journal of Physical Oceanography</i> , 1988, 18, 1193-1201.	1.7	10
69	Adjustment of the Ventilated Thermocline*. <i>Journal of Physical Oceanography</i> , 2001, 31, 1676-1697.	1.7	10
70	Oceanic time variability near a large scale topographic circulation. <i>Ocean Modelling</i> , 2009, 29, 176-188.	2.4	10
71	Numerical simulations of rotating bubble plumes in stratified environments. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 6795-6813.	2.6	10
72	Dynamics of Mesoscale Eddies Interacting With a Western Boundary Current Flowing by a Gap. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 4117-4132.	2.6	10

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73	Towards integrated modeling of the long-term impacts of oil spills. <i>Marine Policy</i> , 2021, 131, 104554.	3.2	10
74	Ventilating Warm Rings: Structure and Model Evaluation. <i>Journal of Physical Oceanography</i> , 1988, 18, 552-564.	1.7	9
75	Gulf Stream Dynamics: Part I: Mean Flow Dynamics at 73°W. <i>Journal of Physical Oceanography</i> , 1989, 19, 1558-1573.	1.7	9
76	Decadal Variability of the Meridional Geostrophic Transport in the Upper Tropical North Pacific Ocean. <i>Journal of Climate</i> , 2018, 31, 5891-5910.	3.2	9
77	Potential Vorticity Budgets in the North Atlantic Ocean. <i>Journal of Physical Oceanography</i> , 2014, 44, 164-178.	1.7	8
78	Locally and Remotely Forced Subtropical AMOC Variability: A Matter of Time Scales. <i>Journal of Climate</i> , 2020, 33, 5155-5172.	3.2	8
79	Physical Transport Processes that Affect the Distribution of Oil in the Gulf of Mexico: Observations and Modeling. <i>Oceanography</i> , 2021, 34, 58-75.	1.0	8
80	On Wind-Driven Energetics of Subtropical Gyres. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002329.	3.8	8
81	A fishy mix. <i>Nature</i> , 2009, 460, 581-582.	27.8	6
82	An estimate of the climatology and variability of Eighteen Degree Water potential vorticity forcing. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2013, 91, 84-95.	1.4	6
83	Simple Models of Stratification. <i>Journal of Physical Oceanography</i> , 1991, 21, 1762-1779.	1.7	5
84	Variability on steep, confined topography. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2004, 51, 2973-2993.	1.4	5
85	North Atlantic climate variability in coupled models and data. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 13-24.	1.3	5
86	First-Order Scaling Law for Potential Vorticity Extraction due to Wind. <i>Journal of Physical Oceanography</i> , 2012, 42, 1303-1312.	1.7	5
87	Semicompressible Ocean Dynamics. <i>Journal of Physical Oceanography</i> , 2015, 45, 149-156.	1.7	5
88	Circumpolar Variations in the Chaotic Nature of Southern Ocean Eddy Dynamics. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	2.6	5
89	Semicompressible Ocean Thermodynamics and Boussinesq Energy Conservation. <i>Fluids</i> , 2016, 1, 9.	1.7	4
90	Fast Warming of the Surface Ocean Under a Climatological Scenario. <i>Geophysical Research Letters</i> , 2019, 46, 3871-3879.	4.0	4

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91	Planetons: An example of large amplitude solitary waves. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1990, 51, 53-85.	1.2	3
92	The Drift of Midocean Jets. <i>Journal of Physical Oceanography</i> , 1993, 23, 2313-2325.	1.7	3
93	Research Overview of the Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE). <i>International Oil Spill Conference Proceedings</i> , 2014, 2014, 544-560.	0.1	3
94	An Ensemble-Based Eddy and Spectral Analysis, With Application to the Gulf Stream. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	3.8	3
95	Diagnosing the Thickness-Weighted Averaged Eddy-Mean Flow Interaction From an Eddying North Atlantic Ensemble: The Eliassen-Palm Flux. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	3.8	3
96	The Numerical Solution of the One-Dimensional Advection-Diffusion Equation in Layered Coordinates. <i>Monthly Weather Review</i> , 2000, 128, 2575-2587.	1.4	2
97	Density Coordinate Mixed Layer Models. <i>Monthly Weather Review</i> , 2001, 129, 237-253.	1.4	2
98	Dissipation processes in the Tongue of the Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3159-3170.	2.6	2
99	On Energy Cascades in General Flows: A Lagrangian Application. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002090.	3.8	2
100	Connected Thermal and Transport Anomalies in the General Circulation. <i>Journal of Physical Oceanography</i> , 1990, 20, 534-550.	1.7	1
101	Inertial Embedded Fronts. <i>Journal of Physical Oceanography</i> , 1994, 24, 79-90.	1.7	1
102	Space-time structures of earthquakes. <i>Meteorology and Atmospheric Physics</i> , 2009, 105, 69-83.	2.0	1
103	On Energy and Turbulent Mixing in the Thermocline. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 578-596.	3.8	1
104	Ocean Energy, Fluxes and an Anti-Anti-Turbulence Conjecture. <i>Ocean and Coastal Research</i> , 2022, 70, .	0.6	1
105	The Evolution of Cooling Rings. <i>Elsevier Oceanography Series</i> , 1989, 50, 75-93.	0.1	0
106	On mid-ocean fronts in multi-layer models. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1994, 74, 1-22.	1.2	0
107	Multiple Equilibria and Transitions in a Coupled Ocean-Atmosphere Box Model. <i>Journal of Physical Oceanography</i> , 1998, 28, 389-397.	1.7	0
108	Direct Measurements of Turbulence in the Upper Western Pacific North Equatorial Current over a 25-h Period. <i>Sensors</i> , 2022, 22, 1167.	3.8	0