Frank Bryan

List of Publications by Year
in descending order

112 papers	9,124 citations	61984 43 h-index	40979 93 g-index
123 all docs	123 docs citations	123 times ranked	6256 citing authors

#	Article	IF	Citations
1	Surface Water Mass transformation in the Southern Ocean â€“ the role of eddies revisited.. Journal of Physical Oceanography, 2022, , .	1.7	0
2	A Global Diagnosis of Eddy Potential Energy Budget in an Eddy-Permitting Ocean Model. Journal of Physical Oceanography, 2022, 52, 1731-1748.	1.7	10
3	Role of Ocean and Atmosphere Variability in Scaleâ€Dependent Thermodynamic Airâ€Sea Interactions. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	6
4	The Impact of Climate Change on Ocean Submesoscale Activity. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016750.	2.6	12
5	Coupled Aqua and Ridge Planets in the Community Earth System Model. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002418.	3.8	2
6	Modulation of Cross-Isothermal Velocities with ENSO in the Tropical Pacific Cold Tongue. Journal of Physical Oceanography, 2021, 51, 1559-1574.	1.7	11
7	Sensitivity of 21st-century projected ocean new production changes to idealized biogeochemical model structure. Biogeosciences, 2021, 18, 3123-3145.	3.3	4
8	The Dependence of Tropical Modes of Variability on Zonal Asymmetry. Geophysical Research Letters, 2021, 48, e2021GL093966.	4.0	0
9	The impact of wind corrections and ocean-current influence on wind stress forcing on the modeling of Pacific North Equatorial Countercurrent. Ocean Modelling, 2021, 166, 101876.	2.4	4
10	What Drives Upper-Ocean Temperature Variability in Coupled Climate Models and Observations?. Journal of Climate, 2020, 33, 577-596.	3.2	38
11	The Global Sink of Available Potential Energy by Mesoscale Airâ€Sea Interaction. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002118.	3.8	14
12	A box model to represent estuarine dynamics in mesoscale resolution ocean models. Ocean Modelling, 2020, 148, 101587.	2.4	12
13	A Diagnosis of Anisotropic Eddy Diffusion From a Highâ€Resolution Global Ocean Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001904.	3.8	28
14	Assessing the Skill of the Improved Treatment of Riverine Freshwater in the Community Earth System Model (CESM) Relative to a New Salinity Climatology. Journal of Advances in Modeling Earth Systems, 2019, 11, 1189-1206.	3.8	10
15	The Modeling of the North Equatorial Countercurrent in the Community Earth System Model and its Oceanic Component. Journal of Advances in Modeling Earth Systems, 2019, 11, 531-544.	3.8	19
16	On the Seasonal Cycle of the Tropical South Indian Ocean. Part I: Mixed Layer Heat and Salt Budgets. Journal of Climate, 2019, 32, 1951-1972.	3.2	5
17	Airâ€“Sea Turbulent Heat Fluxes in Climate Models and Observational Analyses: What Drives Their Variability?. Journal of Climate, 2019, 32, 2397-2421.	3.2	56
18	Effects of Model Resolution, Physics, and Coupling on Southern Hemisphere Storm Tracks in CESM1.3. Geophysical Research Letters, 2019, 46, 12408-12416.	4.0	39

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19	Mechanisms of Mixedâ€Layer Salinity Seasonal Variability in the Indian Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 466-496.	2.6	21
20	Processâ€Specific Contributions to Anomalous Java Mixed Layer Cooling During Positive IOD Events. Journal of Geophysical Research: Oceans, 2018, 123, 4153-4176.	2.6	18
21	On the complexities of utilizing largeâ€scale lightpathâ€connected distributed cyberinfrastructure. Concurrency Computation Practice and Experience, 2017, 29, e3853.	2.2	2
22	Interannual surface salinity on <scp>N</scp>orthwest <scp>A</scp>tlantic shelf. Journal of Geophysical Research: Oceans, 2017, 122, 3638-3659.	2.6	25
23	Evaluation of scale-aware subgrid mesoscale eddy models in a global eddy-rich model. Ocean Modelling, 2017, 115, 42-58.	2.4	53
24	Climate Process Team on Internal Waveâ€“Driven Ocean Mixing. Bulletin of the American Meteorological Society, 2017, 98, 2429-2454.	3.3	235
25	A new look at ocean ventilation time scales and their uncertainties. Journal of Geophysical Research: Oceans, 2017, 122, 3771-3798.	2.6	27
26	A box model for representing estuarine physical processes in Earth system models. Ocean Modelling, 2017, 112, 139-153.	2.4	24
27	Scale Dependence of Midlatitude Airâ€“Sea Interaction. Journal of Climate, 2017, 30, 8207-8221.	3.2	90
28	Evaluating statistical consistency in the ocean model component of the Community Earth System Model (pyCECT v2.0). Geoscientific Model Development, 2016, 9, 2391-2406.	3.6	10
29	P-CSI v1.0, an accelerated barotropic solver for the high-resolution ocean model component in the Community Earth System Model v2.0. Geoscientific Model Development, 2016, 9, 4209-4225.	3.6	15
30	Southern Ocean Overturning Compensation in an Eddy-Resolving Climate Simulation. Journal of Physical Oceanography, 2016, 46, 1575-1592.	1.7	67
31	Evaluation of radioactive cesium impact from atmospheric deposition and direct release fluxes into the North Pacific from the Fukushima Daiichi nuclear power plant. Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 115, 10-21.	1.4	44
32	Climatological Annual Cycle of the Salinity Budgets of the Subtropical Maxima. Journal of Physical Oceanography, 2016, 46, 2981-2994.	1.7	26
33	Impacts of the representation of riverine freshwater input in the community earth system model. Ocean Modelling, 2016, 105, 71-86.	2.4	18
34	Western boundary currents regulated by interaction between ocean eddies and the atmosphere. Nature, 2016, 535, 533-537.	27.8	236
35	Southern Ocean Deep Circulation and Heat Uptake in a High-Resolution Climate Model. Journal of Climate, 2016, 29, 2597-2619.	3.2	47
36	An initial estimate of the global distribution of diurnal variation in sea surface salinity. Journal of Geophysical Research: Oceans, 2015, 120, 3211-3228.	2.6	6

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37	SPURS: Salinity Processes in the Upper-ocean Regional Studyâ€" The North Atlantic Experiment. Oceanography, 2015, 28, 14-19.	1.0	45
38	Isohaline Salinity Budget of the North Atlantic Salinity Maximum. Journal of Physical Oceanography, 2015, 45, 724-736.	1.7	29
39	A tracer-based inversion method for diagnosing eddy-induced diffusivity and advection. Ocean Modelling, 2015, 86, 1-14.	2.4	37
40	Interannual <scp>C</scp>aribbean salinity in satellite data and model simulations. Journal of Geophysical Research: Oceans, 2015, 120, 1375-1387.	2.6	14
41	Bjerknes-like Compensation in the Wintertime North Pacific. Journal of Physical Oceanography, 2015, 45, 1339-1355.	1.7	18
42	Improving the scalability of the ocean barotropic solver in the community earth system model. , 2015, , .		13
43	The iron budget in ocean surface waters in the 20th and 21st centuries: projections by the Community Earth System Model version 1. Biogeosciences, 2014, 11, 33-55.	3.3	37
44	A curious local surface salinity maximum in the northwestern tropical Atlantic. Journal of Geophysical Research: Oceans, 2014, 119, 484-495.	2.6	31
45	Can Southern Ocean Eddy Effects Be Parameterized in Climate Models?. Journal of Climate, 2014, 27, 411-425.	3.2	50
46	A new synoptic scale resolving global climate simulation using the Community Earth System Model. Journal of Advances in Modeling Earth Systems, 2014, 6, 1065-1094.	3.8	262
47	Storm track response to ocean fronts in a global high-resolution climate model. Climate Dynamics, 2014, 43, 805-828.	3.8	118
48	Evaluation of oceanic transport parameters using transient tracers from observations and model output. Ocean Modelling, 2014, 74, 1-21.	2.4	8
49	A Comparison of Mesoscale Eddy Heat Fluxes from Observations and a High-Resolution Ocean Model Simulation of the Kuroshio Extension. Journal of Physical Oceanography, 2013, 43, 2563-2570.	1.7	11
50	The Impact of Oceanic Near-Inertial Waves on Climate. Journal of Climate, 2013, 26, 2833-2844.	3.2	141
51	Impact of ocean model resolution on CCSM climate simulations. Climate Dynamics, 2012, 39, 1303-1328.	3.8	181
52	Kuroshio pathways in a climatologically forced model. Journal of Oceanography, 2012, 68, 625-639.	1.7	26
53	Subtropical Mode Water Variability in a Climatologically Forced Model in the Northwestern Pacific Ocean. Journal of Physical Oceanography, 2012, 42, 126-140.	1.7	11
54	Mechanisms controlling dissolved iron distribution in the North Pacific: A model study. Journal of Geophysical Research, 2011, 116, .	3.3	36

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55	A prototype two-decade fully-coupled fine-resolution CCSM simulation. Ocean Modelling, 2011, 39, 10-30.	2.4	113
56	Transport of 137Cs to the Southern Hemisphere in an ocean general circulation model. Progress in Oceanography, 2011, 89, 38-48.	3.2	45
57	Monsoon climate variabilities. Geophysical Monograph Series, 2010, , 27-51.	0.1	22
58	Northern hemisphere extratropical tropospheric planetary waves and their low-frequency variability: Their vertical structure and interaction with transient eddies and surface thermal contrasts. Geophysical Monograph Series, 2010, , 149-179.	0.1	21
59	Global warming and tropical cyclone activity in the western North Pacific from an observational perspective. Geophysical Monograph Series, 2010, , 193-205.	0.1	2
60	A brief introduction to El NiÃ±o and La NiÃ±a. Geophysical Monograph Series, 2010, , 53-64.	0.1	11
61	Extratropical air-sea interaction, sea surface temperature variability, and the Pacific Decadal Oscillation. Geophysical Monograph Series, 2010, , 123-148.	0.1	54
62	El NiÃ±oâ€“Southern Oscillation ocean dynamics: Simulation by coupled general circulation models. Geophysical Monograph Series, 2010, , 105-122.	0.1	7
63	The multiscale organization of moist convection and the intersection of weather and climate. Geophysical Monograph Series, 2010, , 3-26.	0.1	62
64	The diabatic and nonlinear aspects of the El NiÃ±oâ€”Southern Oscillation: Implications for its past and future behavior. Geophysical Monograph Series, 2010, , 79-103.	0.1	5
65	Arctic sea ice and the potential for abrupt loss. Geophysical Monograph Series, 2010, , 181-191.	0.1	3
66	A linear stochastic model of tropical sea surface temperatures related to El NiÃ±o. Geophysical Monograph Series, 2010, , 65-77.	0.1	4
67	Boundary impulse response functions in a century-long eddying global ocean simulation. Environmental Fluid Mechanics, 2010, 10, 275-295.	1.6	85
68	Frontal Scale Airâ€“Sea Interaction in High-Resolution Coupled Climate Models. Journal of Climate, 2010, 23, 6277-6291.	3.2	170
69	Coordinated Ocean-ice Reference Experiments (COREs). Ocean Modelling, 2009, 26, 1-46.	2.4	573
70	Introduction: Ocean modelingâ€”Eddy or not. Geophysical Monograph Series, 2008, , 1-3.	0.1	2
71	Changes in subduction in the South Atlantic Ocean during the 21st century in the CCSM3. Geophysical Research Letters, 2008, 35, .	4.0	9
72	Resolution convergence and sensitivity studies with North Atlantic circulation models. Part I: The western boundary current system. Ocean Modelling, 2007, 16, 141-159.	2.4	118

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73	Response of the meridional overturning circulation during differing pathways toward greenhouse gas stabilization. Geophysical Monograph Series, 2007, , 351-363.	0.1	2
74	Zonal jets in the Pacific Ocean. Geophysical Research Letters, 2006, 33, .	4.0	107
75	Changes in ocean ventilation during the 21st Century in the CCSM3. Ocean Modelling, 2006, 15, 141-156.	2.4	16
76	Recovery of thermohaline circulation under CO2 stabilization and overshoot scenarios. Ocean Modelling, 2006, 15, 200-217.	2.4	10
77	Measures of the Fidelity of Eddying Ocean Models. Oceanography, 2006, 19, 104-117.	1.0	24
78	Ocean Chlorofluorocarbon and Heat Uptake during the Twentieth Century in the CCSM3. Journal of Climate, 2006, 19, 2366-2381.	3.2	42
79	Climate impacts of systematic errors in the simulation of the path of the North Atlantic Current. Geophysical Research Letters, 2006, 33, .	4.0	18
80	Response of the North Atlantic Thermohaline Circulation and Ventilation to Increasing Carbon Dioxide in CCSM3. Journal of Climate, 2006, 19, 2382-2397.	3.2	89
81	Regional cooling in the South Pacific sector of the Southern Ocean due to global warming. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	2
82	Observing ocean heat content using satellite gravity and altimetry. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	53
83	A method of inferring changes in deep ocean currents from satellite measurements of time-variable gravity. Journal of Geophysical Research, 2002, 107, 11-1-11-17.	3.3	29
84	STOIC: a study of coupled model climatology and variability in tropical ocean regions. Climate Dynamics, 2002, 18, 403-420.	3.8	304
85	What sets the mean transport through Drake Passage?. Journal of Geophysical Research, 2001, 106, 2693-2712.	3.3	100
86	Improvements to the NCAR CSM-1 for Transient Climate Simulations. Journal of Climate, 2001, 14, 164-179.	3.2	61
87	The Community Climate System Model. Bulletin of the American Meteorological Society, 2001, 82, 2357-2376.	3.3	131
88	Equatorial Circulation of a Global Ocean Climate Model with Anisotropic Horizontal Viscosity. Journal of Physical Oceanography, 2001, 31, 518-536.	1.7	137
89	Chapter 2.3 Coupled ocean-atmosphere models. International Geophysics, 2001, 77, 79-96.	0.6	0
90	Numerical Simulation of the North Atlantic Ocean at1/10Â°. Journal of Physical Oceanography, 2000, 30, 1532-1561.	1.7	378

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91	Developments in ocean climate modelling. Ocean Modelling, 2000, 2, 123-192.	2.4	315
92	Short-period oceanic circulation: Implications for satellite altimetry. Geophysical Research Letters, 2000, 27, 1255-1258.	4.0	81
93	Climate-driven polar motion. Journal of Geophysical Research, 1999, 104, 12813-12829.	3.3	38
94	Dynamics of the equatorial undercurrent in a high-resolution ocean model. Journal of Geophysical Research, 1999, 104, 23327-23335.	3.3	2
95	Time variability of the Earth's gravity field: Hydrological and oceanic effects and their possible detection using GRACE. Journal of Geophysical Research, 1998, 103, 30205-30229.	3.3	1,638
96	A consideration of tracer advection schemes in a primitive equation ocean model. Journal of Geophysical Research, 1998, 103, 3301-3321.	3.3	24
97	Application of a Third-Order Upwind Scheme in the NCAR Ocean Model*. Journal of Climate, 1998, 11, 1487-1493.	3.2	80
98	The NCAR Climate System Model Global Ocean Component*. Journal of Climate, 1998, 11, 1287-1306.	3.2	188
99	Surface Ocean Fluxes and Water-Mass Transformation Rates in the Coupled NCAR Climate System Model*. Journal of Climate, 1998, 11, 1420-1441.	3.2	71
100	Climate Drift in a Multicentury Integration of the NCAR Climate System Model*. Journal of Climate, 1998, 11, 1455-1471.	3.2	48
101	The axial angular momentum balance of a global ocean general circulation model. Dynamics of Atmospheres and Oceans, 1997, 25, 191-216.	1.8	27
102	Modeling the Gulf Stream System: How far from reality?. Geophysical Research Letters, 1996, 23, 3155-3158.	4.0	41
103	Deep-Water Formation and Meridional Overturning in a High-Resolution Model of the North Atlantic. Journal of Physical Oceanography, 1996, 26, 1142-1164.	1.7	88
104	A Model Comparison: Numerical Simulations of the North and Equatorial Atlantic Oceanic Circulation in Depth and Isopycnic Coordinates. Journal of Physical Oceanography, 1996, 26, 1849-1867.	1.7	62
105	On the Midlatitude Circulation in a High-Resolution Model of the North Atlantic. Journal of Physical Oceanography, 1995, 25, 289-305.	1.7	72
106	An Overlooked Problem in Model Simulations of the Thermohaline Circulation and Heat Transport in the Atlantic Ocean. Journal of Climate, 1995, 8, 515-523.	3.2	108
107	Sensitivity of the tropical Atlantic circulation to specification of wind stress climatology. Journal of Geophysical Research, 1995, 100, 24729.	3.3	13
108	Sensitivity Studies on the Role of the Ocean in Climate Change. , 1994, , 111-134.		17

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109	Modeling the Wind and Thermohaline Circulation in the North Atlantic Ocean. , 1994, , 135-156.		9
110	Parameter Sensitivity of Primitive Equation Ocean General Circulation Models. Journal of Physical Oceanography, 1987, 17, 970-985.	1.7	473
111	High-latitude salinity effects and interhemispheric thermohaline circulations. Nature, 1986, 323, 301-304.	27.8	562
112	Seasonal variation of the global water balance based on aerological data. Journal of Geophysical Research, 1984, 89, 11717-11730.	3.3	49