M R Mazloff

List of Publications by Year
in descending order

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103 papers	3,299 citations	201385 27 h-index	174990 52 g-index
129 all docs	129 docs citations	129 times ranked	3526 citing authors

#	Article	IF	Citations
1	An Eddy-Permitting Southern Ocean State Estimate. Journal of Physical Oceanography, 2010, 40, 880-899.	0.7	343
2	Water-mass transformation by sea ice in the upper branch of the Southern OceanÂoverturning. Nature Geoscience, 2016, 9, 596-601.	5.4	199
3	Spiraling pathways of global deep waters to the surface of the Southern Ocean. Nature Communications, 2017, 8, 172.	5.8	144
4	Anthropogenic carbon dioxide transport in the Southern Ocean driven by Ekman flow. Nature, 2010, 463, 80-83.	13.7	136
5	Enhancement of Mesoscale Eddy Stirring at Steering Levels in the Southern Ocean. Journal of Physical Oceanography, 2010, 40, 170-184.	0.7	126
6	A data assimilating model for estimating <scp>S</scp>outhern <scp>O</scp>cean biogeochemistry. Journal of Geophysical Research: Oceans, 2017, 122, 6968-6988.	1.0	120
7	The Weddell Gyre, Southern Ocean: Present Knowledge and Future Challenges. Reviews of Geophysics, 2019, 57, 623-708.	9.0	105
8	Poleward flows in the southern California Current System: Glider observations and numerical simulation. Journal of Geophysical Research, 2011, 116, .	3.3	99
9	Reassessing Southern Ocean Airâ€Sea CO₂ Flux Estimates With the Addition of Biogeochemical Float Observations. Global Biogeochemical Cycles, 2019, 33, 1370-1388.	1.9	95
10	Vertical structure and transport of the Antarctic Circumpolar Current in Drake Passage from direct velocity observations. Journal of Geophysical Research, 2011, 116, .	3.3	84
11	Antarctic offshore polynyas linked to Southern Hemisphere climate anomalies. Nature, 2019, 570, 319-325.	13.7	74
12	Subantarctic Mode Water Formation, Destruction, and Export in the Eddy-Permitting Southern Ocean State Estimate. Journal of Physical Oceanography, 2013, 43, 1485-1511.	0.7	73
13	Remotely Sensed Winds and Wind Stresses for Marine Forecasting and Ocean Modeling. Frontiers in Marine Science, 2019, 6, .	1.2	71
14	Delivering Sustained, Coordinated, and Integrated Observations of the Southern Ocean for Global Impact. Frontiers in Marine Science, 2019, 6, .	1.2	67
15	A Comparison of Southern Ocean Airâ€“Sea Buoyancy Flux from an Ocean State Estimate with Five Other Products. Journal of Climate, 2011, 24, 6283-6306.	1.2	62
16	Integrated Observations of Global Surface Winds, Currents, and Waves: Requirements and Challenges for the Next Decade. Frontiers in Marine Science, 2019, 6, .	1.2	60
17	Representation of Southern Ocean Properties across Coupled Model Intercomparison Project Generations: CMIP3 to CMIP6. Journal of Climate, 2020, 33, 6555-6581.	1.2	59
18	Abyssal connections of Antarctic Bottom Water in a Southern Ocean State Estimate. Geophysical Research Letters, 2013, 40, 2177-2182.	1.5	57

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19	How does <scp>S</scp>ubantarctic <scp>M</scp>ode <scp>W</scp>ater ventilate the <scp>S</scp>outhern <scp>H</scp>emisphere subtropics?. Journal of Geophysical Research: Oceans, 2016, 121, 6558-6582.	1.0	47
20	Zonal Variations in the Southern Ocean Heat Budget. Journal of Climate, 2016, 29, 6563-6579.	1.2	47
21	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
22	Thermohaline structure in the California Current System: Observations and modeling of spice variance. Journal of Geophysical Research, 2012, 117, .	3.3	39
23	Topographic form stress in the <scp>S</scp>outhern <scp>O</scp>cean <scp>S</scp>tate <scp>E</scp>stimate. Journal of Geophysical Research: Oceans, 2015, 120, 7919-7933.	1.0	35
24	Mean dynamic topography in the Southern Ocean: Evaluating Antarctic Circumpolar Current transport. Journal of Geophysical Research, 2012, 117, .	3.3	32
25	Wind-Driven Sea Level Variability on the California Coast: An Adjoint Sensitivity Analysis. Journal of Physical Oceanography, 2014, 44, 297-318.	0.7	32
26	The Spatiotemporal Structure of Diabatic Processes Governing the Evolution of Subantarctic Mode Water in the Southern Ocean. Journal of Physical Oceanography, 2016, 46, 683-710.	0.7	32
27	Transformation of Deep Water Masses Along Lagrangian Upwelling Pathways in the Southern Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 1994-2017.	1.0	31
28	Constraining Southern Ocean Air-Sea-Ice Fluxes Through Enhanced Observations. Frontiers in Marine Science, 2019, 6, .	1.2	31
29	Towards an End-to-End Analysis and Prediction System for Weather, Climate, and Marine Applications in the Red Sea. Bulletin of the American Meteorological Society, 2021, 102, E99-E122.	1.7	31
30	Animal Borne Ocean Sensors â€“ AniBOS â€“ An Essential Component of the Global Ocean Observing System. Frontiers in Marine Science, 2021, 8, .	1.2	30
31	The Force Balance of the Southern Ocean Meridional Overturning Circulation. Journal of Physical Oceanography, 2013, 43, 1193-1208.	0.7	29
32	Metrics for the Evaluation of the Southern Ocean in Coupled Climate Models and Earth System Models. Journal of Geophysical Research: Oceans, 2018, 123, 3120-3143.	1.0	29
33	Temporal and Spatial Scales of Correlation in Marine Phytoplankton Communities. Journal of Geophysical Research: Oceans, 2019, 124, 9417-9438.	1.0	29
34	The Effects of Enhanced Sea Ice Export from the Ross Sea on Recent Cooling and Freshening of the Southeast Pacific. Journal of Climate, 2019, 32, 2013-2035.	1.2	28
35	An oceanic heat transport pathway to the Amundsen Sea Embayment. Journal of Geophysical Research: Oceans, 2016, 121, 3337-3349.	1.0	27
36	Southern Ocean Biogeochemical Float Deployment Strategy, With Example From the Greenwich Meridian Line (GOâ€SHIP A12). Journal of Geophysical Research: Oceans, 2019, 124, 403-431.	1.0	25

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37	Barotropic and baroclinic contributions to along-stream and across-stream transport in the Antarctic Circumpolar Current. Journal of Geophysical Research: Oceans, 2014, 119, 8011-8028.	1.0	24
38	Physical and Biological Drivers of Biogeochemical Tracers Within the Seasonal Sea Ice Zone of the Southern Ocean From Profiling Floats. Journal of Geophysical Research: Oceans, 2018, 123, 746-758.	1.0	23
39	Putting It All Together: Adding Value to the Global Ocean and Climate Observing Systems With Complete Self-Consistent Ocean State and Parameter Estimates. Frontiers in Marine Science, 2019, 6, .	1.2	23
40	An advective mechanism for deep chlorophyll maxima formation in southern Drake Passage. Geophysical Research Letters, 2016, 43, 10,846.	1.5	22
41	Water Mass and Biogeochemical Variability in the Kerguelen Sector of the Southern Ocean: A Machine Learning Approach for a Mixing Hot Spot. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015877.	1.0	22
42	Space and time variability of the <scp>S</scp>outhern <scp>O</scp>cean carbon budget. Journal of Geophysical Research: Oceans, 2017, 122, 7407-7432.	1.0	20
43	Annual and Interannual Variability in the California Current System: Comparison of an Ocean State Estimate with a Network of Underwater Gliders. Journal of Physical Oceanography, 2018, 48, 2965-2988.	0.7	20
44	Weddell Sea Phytoplankton Blooms Modulated by Sea Ice Variability and Polynya Formation. Geophysical Research Letters, 2020, 47, e2020GL087954.	1.5	20
45	Impacts of Ice-Shelf Melting on Water-Mass Transformation in the Southern Ocean from E3SM Simulations. Journal of Climate, 2020, 33, 5787-5807.	1.2	20
46	Stratified tidal flow over a tall ridge above and below the turning latitude. Journal of Fluid Mechanics, 2016, 793, 933-957.	1.4	18
47	Correlation Lengths for Estimating the Largeâ€Scale Carbon and Heat Content of the Southern Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 883-901.	1.0	18
48	Physical Drivers of Phytoplankton Bloom Initiation in the Southern Ocean's Scotia Sea. Journal of Geophysical Research: Oceans, 2019, 124, 5811-5826.	1.0	18
49	The Importance of Remote Forcing for Regional Modeling of Internal Waves. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015623.	1.0	18
50	Waveâ€“Current Interactions at Meso- and Submesoscales: Insights from Idealized Numerical Simulations. Journal of Physical Oceanography, 2020, 50, 3483-3500.	0.7	18
51	Observing the Iceâ€Covered Weddell Gyre With Profiling Floats: Position Uncertainties and Correlation Statistics. Journal of Geophysical Research: Oceans, 2018, 123, 8383-8410.	1.0	17
52	Assessing the Quality of Southern Ocean Circulation in CMIP5 AOGCM and Earth System Model Simulations. Journal of Climate, 2019, 32, 5915-5940.	1.2	17
53	Water Mass Characteristics of the Antarctic Margins and the Production and Seasonality of Dense Shelf Water. Journal of Geophysical Research: Oceans, 2019, 124, 9277-9294.	1.0	16
54	Volume and Heat Budgets in the Coastal California Current System: Means, Annual Cycles, and Interannual Anomalies of 2014â€“16. Journal of Physical Oceanography, 2020, 50, 1435-1453.	0.7	16

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55	Pathways of the Agulhas waters poleward of 29Â°S. Journal of Geophysical Research: Oceans, 2014, 119, 4234-4250.	1.0	15
56	Data Gaps within Atmospheric Rivers over the Northeastern Pacific. Bulletin of the American Meteorological Society, 2021, 102, E492-E524.	1.7	15
57	Antarctica and the Southern Ocean. Bulletin of the American Meteorological Society, 2020, 101, S287-S320.	1.7	15
58	SKRIPS v1.0: a regional coupled oceanâ€“atmosphere modeling framework (MITgcmâ€“WRF) using ESMF/NUOPC, description and preliminary results for the Red Sea. Geoscientific Model Development, 2019, 12, 4221-4244.	1.3	14
59	Southern Ocean carbon export efficiency in relation to temperature and primary productivity. Scientific Reports, 2020, 10, 13494.	1.6	14
60	Attribution of Spaceâ€Time Variability in Globalâ€Ocean Dissolved Inorganic Carbon. Global Biogeochemical Cycles, 2022, 36, .	1.9	14
61	Improving the geoid: Combining altimetry and mean dynamic topography in the California coastal ocean. Geophysical Research Letters, 2014, 41, 8944-8952.	1.5	13
62	Rapid variability of Antarctic Bottom Water transport into the Pacific Ocean inferred from GRACE. Geophysical Research Letters, 2016, 43, 3822-3829.	1.5	13
63	Estimating Oxygen in the Southern Ocean Using Argo Temperature and Salinity. Journal of Geophysical Research: Oceans, 2018, 123, 4280-4297.	1.0	13
64	On the Sensitivity of the Drake Passage Transport to Airâ€“Sea Momentum Flux. Journal of Climate, 2012, 25, 2279-2290.	1.2	12
65	Characterization of the Deep Water Surface Wave Variability in the California Current Region. Journal of Geophysical Research: Oceans, 2017, 122, 8753-8769.	1.0	12
66	Estimation of the Tropical Pacific Ocean State 2010â€“13. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1501-1517.	0.5	11
67	A Deep Eastern Boundary Current Carrying Indian Deep Water South of Australia. Journal of Geophysical Research: Oceans, 2019, 124, 2218-2238.	1.0	11
68	Bottom pressure torque and the vorticity balance from observations in Drake Passage. Journal of Geophysical Research: Oceans, 2016, 121, 4282-4302.	1.0	10
69	Evaluation of sea-ice thickness from four reanalyses in the Antarctic Weddell Sea. Cryosphere, 2021, 15, 31-47.	1.5	10
70	Testing an eddy-permitting model of the Southern Ocean carbon cycle against observations. Ocean Modelling, 2011, 39, 170-182.	1.0	9
71	The Effect of the Kerguelen Plateau on the Ocean Circulation. Journal of Physical Oceanography, 2016, 46, 3385-3396.	0.7	9
72	State Estimates and Forecasts of the Northern Philippine Sea Circulation including Ocean Acoustic Travel Times. Journal of Atmospheric and Oceanic Technology, 2021, 38, 1913-1933.	0.5	9

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73	Seasonal Modulation of Dissolved Oxygen in the Equatorial Pacific by Tropical Instability Vortices. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017567.	1.0	9
74	A Multivariate Empirical Orthogonal Function Method to Construct Nitrate Maps in the Southern Ocean. Journal of Atmospheric and Oceanic Technology, 2018, 35, 1505-1519.	0.5	8
75	The Observed Seasonal Cycle of Macronutrients in Drake Passage: Relationship to Fronts and Utility as a Model Metric. Journal of Geophysical Research: Oceans, 2019, 124, 4763-4783.	1.0	8
76	Direct Temporal Cascade of Temperature Variance in Eddy-Permitting Simulations of Multidecadal Variability. Journal of Climate, 2020, 33, 9409-9425.	1.2	8
77	Interfacial Form Stress in the Southern Ocean State Estimate. Journal of Geophysical Research: Oceans, 2018, 123, 3368-3385.	1.0	7
78	Numerical Simulations to Project Argo Float Positions in the Middepth and Deep Southwest Pacific. Journal of Atmospheric and Oceanic Technology, 2018, 35, 1425-1440.	0.5	7
79	Using a regional ocean model to understand the structure and variability of acoustic arrivals in Fram Strait. Journal of the Acoustical Society of America, 2020, 147, 1042-1053.	0.5	7
80	Selfâ€Shading and Meltwater Spreading Control the Transition From Light to Iron Limitation in an Antarctic Coastal Polynya. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016636.	1.0	7
81	Topographic Modulation of the Wind Stress Impact on Eddy Activity in the Southern Ocean. Geophysical Research Letters, 2022, 49, .	1.5	7
82	Eddyâ€Induced Acceleration of Argo Floats. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC016042.	1.0	6
83	Focusing and Defocusing of Tropical Cyclone Generated Waves by Ocean Current Refraction. Journal of Geophysical Research: Oceans, 2022, 127, .	1.0	6
84	Controls on the Boundary Between Thermally and Nonâ€Thermally Driven pCO₂ Regimes in the South Pacific. Geophysical Research Letters, 2022, 49, .	1.5	6
85	DASSO: a data assimilation system for the Southern Ocean that utilizes both sea-ice concentration and thickness observations. Journal of Glaciology, 2021, 67, 1235-1240.	1.1	5
86	The Effect of Resolution on Vertical Heat and Carbon Transports in a Regional Ocean Circulation Model of the Argentine Basin. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017235.	1.0	5
87	Optimizing Mooring Placement to Constrain Southern Ocean Airâ€“Sea Fluxes. Journal of Atmospheric and Oceanic Technology, 2020, 37, 1365-1385.	0.5	5
88	A Broadband View of the Sea Surface Height Wavenumber Spectrum. Geophysical Research Letters, 2022, 49, .	1.5	5
89	The Role of Airâ€“Sea Interactions in Atmospheric Rivers: Case Studies Using the SKRIPS Regional Coupled Model. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032885.	1.2	4
90	Tropical Pacific Airâ€Sea Interaction Processes and Biases in CESM2 and Their Relation to El NiÃ±o Development. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016967.	1.0	4

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91	Subtropical Contribution to Subâ€Antarctic Mode Waters. Geophysical Research Letters, 2022, 49, .	1.5	4
92	State Estimates and Forecasts of the Eddy Field in the Subtropical Countercurrent in the Northern Philippine Sea. Journal of Atmospheric and Oceanic Technology, 2021, 38, 1889-1911.	0.5	3
93	Harmonic Analysis of Non-Phase-Locked Tides with Red Noise Using the red_tide Package. Journal of Atmospheric and Oceanic Technology, 2022, 39, 1031-1051.	0.5	3
94	Tracer and observationally derived constraints on diapycnal diffusivities in an ocean state estimate. Ocean Science, 2022, 18, 729-759.	1.3	3
95	Impact of downward longwave radiative deficits on Antarctic sea-ice extent predictability during the sea ice growth period. Environmental Research Letters, 2022, 17, 084008.	2.2	3
96	Evidence of Jetâ€Scale Overturning Ocean Circulations in Argo Float Trajectories. Geophysical Research Letters, 2018, 45, 11,866.	1.5	2
97	Untangling local and remote influences in two major petrel habitats in the oligotrophic Southern Ocean. Global Change Biology, 2021, 27, 5773-5785.	4.2	2
98	Morphology and Kinematics of Langmuirâ^'Blodgett Monolayers. Langmuir, 2001, 17, 2727-2732.	1.6	1
99	Southern Ocean dynamics and biogeochemistry in a changing climate: Introduction and overview. Deep-Sea Research Part II: Topical Studies in Oceanography, 2015, 114, 1-2.	0.6	1
100	The Impact of Southern Ocean Ekman Pumping, Heat and Freshwater Flux Variability on Intermediate and Mode Water Export in CMIP Models: Present and Future Scenarios. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017173.	1.0	1
101	Impacts of ocean currents on the South Indian Ocean extratropical storm track through the relative wind effect. Journal of Climate, 2021, , 1-61.	1.2	1
102	Investigating Predictability of DIC and SST in the Argentine Basin Through Wind Stress Perturbation Experiments. Geophysical Research Letters, 2021, 48, e2021GL095504.	1.5	1
103	Ocean Surface Salinity Response to Atmospheric River Precipitation in the California Current System. Journal of Physical Oceanography, 2022, 52, 1867-1885.	0.7	1