

# Sabrina Speich

## List of Publications by Year in descending order

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Version: 2024-02-01

115  
papers

12,501  
citations

57719

44  
h-index

30058

103  
g-index

137  
all docs

137  
docs citations

137  
times ranked

13034  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure and function of the global ocean microbiome. <i>Science</i> , 2015, 348, 1261359.	6.0	2,137
2	Eukaryotic plankton diversity in the sunlit ocean. <i>Science</i> , 2015, 348, 1261605.	6.0	1,551
3	Determinants of community structure in the global plankton interactome. <i>Science</i> , 2015, 348, 1262073.	6.0	842
4	Plankton networks driving carbon export in the oligotrophic ocean. <i>Nature</i> , 2016, 532, 465-470.	13.7	670
5	Patterns and ecological drivers of ocean viral communities. <i>Science</i> , 2015, 348, 1261498.	6.0	617
6	Marine DNA Viral Macro- and Microdiversity from Pole to Pole. <i>Cell</i> , 2019, 177, 1109-1123.e14.	13.5	541
7	A Holistic Approach to Marine Eco-Systems Biology. <i>PLoS Biology</i> , 2011, 9, e1001177.	2.6	353
8	Open science resources for the discovery and analysis of Tara Oceans data. <i>Scientific Data</i> , 2015, 2, 150023.	2.4	330
9	A global ocean atlas of eukaryotic genes. <i>Nature Communications</i> , 2018, 9, 373.	5.8	297
10	Global Trends in Marine Plankton Diversity across Kingdoms of Life. <i>Cell</i> , 2019, 179, 1084-1097.e21.	13.5	271
11	Gene Expression Changes and Community Turnover Differentially Shape the Global Ocean Metatranscriptome. <i>Cell</i> , 2019, 179, 1068-1083.e21.	13.5	268
12	The GEOTRACES Intermediate Data Product 2017. <i>Chemical Geology</i> , 2018, 493, 210-223.	1.4	257
13	Environmental characteristics of Agulhas rings affect interocean plankton transport. <i>Science</i> , 2015, 348, 1261447.	6.0	158
14	Viral to metazoan marine plankton nucleotide sequences from the Tara Oceans expedition. <i>Scientific Data</i> , 2017, 4, 170093.	2.4	147
15	Tasman leakage: A new route in the global ocean conveyor belt. <i>Geophysical Research Letters</i> , 2002, 29, 55-1-55-4.	1.5	136
16	EUREC4A: A Field Campaign to Elucidate the Couplings Between Clouds, Convection and Circulation. <i>Surveys in Geophysics</i> , 2017, 38, 1529-1568.	2.1	132
17	Tracking coherent structures in a regional ocean model with wavelet analysis: Application to Cape Basin eddies. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	125
18	Atlantic meridional overturning circulation and the Southern Hemisphere supergyre. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	123

#	ARTICLE	IF	CITATIONS
19	Measuring Global Ocean Heat Content to Estimate the Earth Energy Imbalance. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	123
20	Atlantic Meridional Overturning Circulation: Observed Transport and Variability. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	120
21	Altimetry for the future: Building on 25 years of progress. <i>Advances in Space Research</i> , 2021, 68, 319-363.	1.2	119
22	Argo Data 1999â€“2019: Two Million Temperature-Salinity Profiles and Subsurface Velocity Observations From a Global Array of Profiling Floats. <i>Frontiers in Marine Science</i> , 2020, 7, .	1.2	117
23	Successive bifurcations in a shallow-water model applied to the wind-driven ocean circulation. <i>Nonlinear Processes in Geophysics</i> , 1995, 2, 241-268.	0.6	107
24	Single-cell genomics of multiple uncultured stramenopiles reveals underestimated functional diversity across oceans. <i>Nature Communications</i> , 2018, 9, 310.	5.8	101
25	Requirements for a Coastal Hazards Observing System. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	92
26	EUREC&lt;sup&gt;4&lt;/sup&gt;A. <i>Earth System Science Data</i> , 2021, 13, 4067-4119.	3.7	88
27	Warm and cold water routes of an O.G.C.M. thermohaline conveyor belt. <i>Geophysical Research Letters</i> , 2001, 28, 311-314.	1.5	87
28	The Tropical Atlantic Observing System. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	80
29	Communityâ€“level Responses to Iron Availability in Open Ocean Plankton Ecosystems. <i>Global Biogeochemical Cycles</i> , 2019, 33, 391-419.	1.9	76
30	Anticyclonic Eddies Connecting the Western Boundaries of Indian and Atlantic Oceans. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 7651-7677.	1.0	75
31	Temporal variability of the meridional overturning circulation at 34.5Â°S: Results from two pilot boundary arrays in the South Atlantic. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 6461-6478.	1.0	70
32	Functional repertoire convergence of distantly related eukaryotic plankton lineages abundant in the sunlit ocean. <i>Cell Genomics</i> , 2022, 2, 100123.	3.0	70
33	A hydrographic section from South Africa to the southern limit of the Antarctic Circumpolar Current at the Greenwich meridian. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2008, 55, 1284-1303.	0.6	65
34	Routes of Agulhas rings in the southeastern Cape Basin. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2010, 57, 1406-1421.	0.6	62
35	The biogeochemical cycle of dissolved cobalt in the Atlantic and the Southern Ocean south off the coast of South Africa. <i>Marine Chemistry</i> , 2011, 126, 193-206.	0.9	62
36	Compendium of 530 metagenome-assembled bacterial and archaeal genomes from the polar Arctic Ocean. <i>Nature Microbiology</i> , 2021, 6, 1561-1574.	5.9	57

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37	Silicon pool dynamics and biogenic silica export in the Southern Ocean inferred from Si-isotopes. <i>Ocean Science</i> , 2011, 7, 533-547.	1.3	56
38	An altimetry-based gravest empirical mode south of Africa: 1. Development and validation. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	55
39	Physical speciation of iron in the Atlantic sector of the Southern Ocean along a transect from the subtropical domain to the Weddell Sea Gyre. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	55
40	Meridional Overturning Circulation Transport Variability at 34.5°S During 2009–2017: Baroclinic and Barotropic Flows and the Dueling Influence of the Boundaries. <i>Geophysical Research Letters</i> , 2018, 45, 4180-4188.	1.5	55
41	The Role of Southern Ocean Surface Forcings and Mixing in the Global Conveyor. <i>Journal of Physical Oceanography</i> , 2008, 38, 1377-1400.	0.7	54
42	Consistency of the current global ocean observing systems from an Argo perspective. <i>Ocean Science</i> , 2014, 10, 547-557.	1.3	54
43	The Global Conveyor Belt from a Southern Ocean Perspective. <i>Journal of Physical Oceanography</i> , 2008, 38, 1401-1425.	0.7	52
44	Cold vs. warm water route “sources for the upper limb of the Atlantic Meridional Overturning Circulation revisited in a high-resolution ocean model. <i>Ocean Science</i> , 2019, 15, 489-512.	1.3	51
45	Anticyclonic and cyclonic eddies of subtropical origin in the subantarctic zone south of Africa. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	49
46	A Lagrangian analysis of the Indian-Atlantic interocean exchange in a regional model. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	48
47	Mesoscale eddy activity in the southern Benguela upwelling system from satellite altimetry and model data. <i>Progress in Oceanography</i> , 2009, 83, 288-295.	1.5	47
48	Spatio-temporal characteristics of the Agulhas Current retroflexion. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2010, 57, 1392-1405.	0.6	47
49	A Global Diagnostic of Interocean Mass Transfers. <i>Journal of Physical Oceanography</i> , 2001, 31, 1623-1632.	0.7	45
50	Transport and variability of the Antarctic Circumpolar Current south of Africa. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	44
51	Modeling the structure and variability of the southern Benguela upwelling using QuikSCAT wind forcing. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	41
52	Role of bathymetry in Agulhas Current configuration and behaviour. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	39
53	Basin-Wide Oceanographic Array Bridges the South Atlantic. <i>Eos</i> , 2014, 95, 53-54.	0.1	36
54	Labile Fe(II) concentrations in the Atlantic sector of the Southern Ocean along a transect from the subtropical domain to the Weddell Sea Gyre. <i>Biogeosciences</i> , 2011, 8, 2461-2479.	1.3	35

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55	Dynamical Evolution of Intense Ierapetra Eddies on a 22 Year Long Period. Journal of Geophysical Research: Oceans, 2017, 122, 9276-9298.	1.0	34
56	Water Mass Export from Drake Passage to the Atlantic, Indian, and Pacific Oceans: A Lagrangian Model Analysis. Journal of Physical Oceanography, 2005, 35, 1206-1222.	0.7	32
57	Nitrogen uptake by phytoplankton in the Atlantic sector of the Southern Ocean during late austral summer. Biogeosciences, 2011, 8, 2947-2959.	1.3	32
58	A Strait Outflow Circulation Process Study: The Case of the Alboran Sea. Journal of Physical Oceanography, 1996, 26, 320-340.	0.7	31
59	Model intercomparison in the Mediterranean: MEDMEX simulations of the seasonal cycle. Journal of Marine Systems, 2002, 33-34, 215-251.	0.9	31
60	A regional numerical ocean model of the circulation in the Bay of Biscay. Journal of Geophysical Research, 2007, 112, .	3.3	28
61	A global diagnostic of interior ocean ventilation. Geophysical Research Letters, 2002, 29, 108-1-108-4.	1.5	26
62	Frontiers in Fine-Scale in situ Studies: Opportunities During the SWOT Fast Sampling Phase. Frontiers in Marine Science, 2019, 6, .	1.2	26
63	Highly variable upper and abyssal overturning cells in the South Atlantic. Science Advances, 2020, 6, eaba7573.	4.7	26
64	Ship- and island-based atmospheric soundings from the 2020 EUREC&lt;sup>4&sup>A field campaign. Earth System Science Data, 2021, 13, 491-514.	3.7	26
65	The Ocean Gene Atlas v2.0: online exploration of the biogeography and phylogeny of plankton genes. Nucleic Acids Research, 2022, 50, W516-W526.	6.5	26
66	Linking wind and interannual upwelling variability in a regional model of the southern Benguela. Geophysical Research Letters, 2002, 29, 41-1-41-4.	1.5	25
67	An altimetry&#x2013;based gravest empirical mode south of Africa: 2. Dynamic nature of the Antarctic Circumpolar Current fronts. Journal of Geophysical Research, 2010, 115, .	3.3	25
68	Future Ocean Observations to Connect Climate, Fisheries and Marine Ecosystems. Frontiers in Marine Science, 2019, 6, .	1.2	24
69	Macroscale patterns of oceanic zooplankton composition and size structure. Scientific Reports, 2021, 11, 15714.	1.6	24
70	Evolution of the Thermohaline Structure of One Agulhas Ring Reconstructed from Satellite Altimetry and Argo Floats. Journal of Geophysical Research: Oceans, 2019, 124, 8969-9003.	1.0	23
71	Is there a continuous Subtropical Front south of Africa?. Journal of Geophysical Research, 2011, 116, .	3.3	22
72	Interocean exchanges and the spreading of Antarctic Intermediate Water south of Africa. Journal of Geophysical Research, 2012, 117, .	3.3	22

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73	Impact of Mesoscale Eddies on Deep Chlorophyll Maxima. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093470.	1.5	22
74	Cyclostrophic Corrections of AVISO/DUACS Surface Velocities and Its Application to Mesoscale Eddies in the Mediterranean Sea. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 8913-8932.	1.0	20
75	Diagnosing and Picturing the North Atlantic Segment of the Global Conveyor Belt by Means of an Ocean General Circulation Model. <i>Journal of Physical Oceanography</i> , 2002, 32, 1430-1451.	0.7	19
76	Salinity changes along the upper limb of the Atlantic thermohaline circulation. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	19
77	Carbonate system in the water masses of the Southeast Atlantic sector of the Southern Ocean during February and March 2008. <i>Biogeosciences</i> , 2011, 8, 1401-1413.	1.3	19
78	Adequacy of the Ocean Observation System for Quantifying Regional Heat and Freshwater Storage and Change. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	19
79	Agulhas Ring Heat Content and Transport in the South Atlantic Estimated by Combining Satellite Altimetry and Argo Profiling Floats Data. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015511.	1.0	18
80	Integrated water vapour content retrievals from ship-borne GNSS receivers during EUREC4A. <i>Earth System Science Data</i> , 2021, 13, 1499-1517.	3.7	18
81	Formation and Evolution of a Freshwater Plume in the Northwestern Tropical Atlantic in February 2020. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016981.	1.0	17
82	Shallow and Deep Eastern Boundary Currents in the South Atlantic at 34.5°S: Mean Structure and Variability. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 1634-1659.	1.0	17
83	Mesoscale and Submesoscale Processes in the Southeast Atlantic and Their Impact on the Regional Thermohaline Structure. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 1937-1961.	1.0	16
84	Heat budget of the surface mixed layer south of Africa. <i>Ocean Dynamics</i> , 2011, 61, 1441-1458.	0.9	15
85	The exchange of Intermediate Water in the southeast Atlantic: Water mass transformations diagnosed from the Lagrangian analysis of a regional ocean model. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	15
86	Moored observations of mesoscale features in the Cape Basin: characteristics and local impacts on water mass distributions. <i>Ocean Science</i> , 2018, 14, 923-945.	1.3	15
87	The baroclinic transport of the Antarctic Circumpolar Current south of Africa. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	14
88	Observed and projected sea surface temperature seasonal changes in the Western English Channel from satellite data and CMIP5 multi-model ensemble. <i>International Journal of Climatology</i> , 2017, 37, 2831-2849.	1.5	14
89	A means of estimating the intrinsic and atmospherically-forced contributions to sea surface height variability applied to altimetric observations. <i>Progress in Oceanography</i> , 2020, 184, 102314.	1.5	14
90	Ocean Climate Observing Requirements in Support of Climate Research and Climate Information. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	12

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91	The South Atlantic Meridional Overturning Circulation and Mesoscale Eddies in the First GO-SHIP Section at 34.5°S. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016962.	1.0	12
92	Global Oceans. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, S129-S184.	1.7	12
93	Wintertime process study of the North Brazil Current rings reveals the region as a larger sink for CO <sub>2</sub> than expected. <i>Biogeosciences</i> , 2022, 19, 2969-2988.	1.3	12
94	Evolving the Physical Global Ocean Observing System for Research and Application Services Through International Coordination. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	11
95	importance of monitoring the Greater Agulhas Current and its inter-ocean exchanges using large mooring arrays. <i>South African Journal of Science</i> , 2017, 113, 7.	0.3	10
96	Editorial: Oceanobs'19: An Ocean of Opportunity. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	10
97	Impacts of the ocean lateral diffusion on the El Niño/Southern Oscillation-like variability of a global coupled general circulation model. <i>Geophysical Research Letters</i> , 2000, 27, 3041-3044.	1.5	9
98	Marine atmospheric boundary layer over some Southern Ocean fronts during the IPY BGH 2008 cruise. <i>Ocean Science</i> , 2012, 8, 1001-1023.	1.3	9
99	Multi-Year Estimates of Daily Heat Transport by the Atlantic Meridional Overturning Circulation at 34.5°S. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016947.	1.0	8
100	High-End Scenarios of Sea-Level Rise for Coastal Risk-Averse Stakeholders. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	8
101	Decadal-scale thermohaline variability in the Atlantic sector of the Southern Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3171-3189.	1.0	7
102	Exploring Microdiversity in Novel <i>Kordia</i> sp. (Bacteroidetes) with Proteorhodopsin from the Tropical Indian Ocean via Single Amplified Genomes. <i>Frontiers in Microbiology</i> , 2017, 8, 1317.	1.5	7
103	Indo-Atlantic Exchange, Mesoscale Dynamics, and Antarctic Intermediate Water. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 3286-3306.	1.0	7
104	Shelf Water Export at the Brazil-Malvinas Confluence Evidenced From Combined in situ and Satellite Observations. <i>Frontiers in Marine Science</i> , 2022, 9, .	1.2	7
105	Using MSSA to determine explicitly the oscillatory dynamics of weakly nonlinear climate systems. <i>Nonlinear Processes in Geophysics</i> , 2005, 12, 807-815.	0.6	6
106	On the Dynamics of the Slope Current System along the West European Margin. Part II: Analytical Calculations and Numerical Simulations with Seasonal Forcing. <i>Journal of Physical Oceanography</i> , 2008, 38, 2619-2638.	0.7	6
107	Deep Circulation and Meridional Overturning: Recent Progress and a Strategy for Sustained Observations. , 2010, , .		6
108	Formation and Transport of the South Atlantic Subtropical Mode Water in Eddy-Permitting Observations. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	1.0	6

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109	Generation and Intensification of Mesoscale Anticyclones by Orographic Wind Jets: The Case of Ierapetra Eddies Forced by the Etesians. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015810.	1.0	4
110	Characterizing Mesoscale Eddies of Eastern Upwelling Origins in the Atlantic Ocean and Their Role in Offshore Transport. <i>Frontiers in Marine Science</i> , 0, 9, .	1.2	4
111	On the eigenperiods in the Tyrrhenian Sea level oscillations. <i>Il Nuovo Cimento Della Societ� Italiana Di Fisica C</i> , 1988, 11, 219-228.	0.2	3
112	EUREC4A: A Field Campaign to Elucidate the Couplings Between Clouds, Convection and Circulation. <i>Space Sciences Series of ISSI</i> , 2017, , 357-396.	0.0	2
113	Lagrangian water mass tracing from pseudo-Argo, model-derived salinity, tracer and velocity data: An application to Antarctic Intermediate Water in the South Atlantic Ocean. <i>Ocean Modelling</i> , 2015, 85, 56-67.	1.0	1
114	Exploring the Interplay Between Ocean Eddies and the Atmosphere. <i>Eos</i> , 2018, 99, .	0.1	1
115	Tracers of physical and biogeochemical processes, past changes and ongoing anthropogenic impacts: The 43rd International Liege Colloquium on Ocean Dynamics, Liege, Belgium, May 2��6, 2011. <i>Journal of Marine Systems</i> , 2013, 126, 1-2.	0.9	0