Erik van Sebille

List of Publications by Year
in descending order

148	10,891	38660 50	34900 98
papers	citations	h-index	g-index

207	207	207	10798
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A global inventory of small floating plastic debris. Environmental Research Letters, 2015, 10, 124006.	2.2	1,113
2	The tropicalization of temperate marine ecosystems: climate-mediated changes in herbivory and community phase shifts. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20140846.	1.2	679
3	Threat of plastic pollution to seabirds is global, pervasive, and increasing. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11899-11904.	3.3	672
4	The physical oceanography of the transport of floating marine debris. Environmental Research Letters, 2020, 15, 023003.	2.2	469
5	The Arctic Ocean as a dead end for floating plastics in the North Atlantic branch of the Thermohaline Circulation. Science Advances, 2017, 3, e1600582.	4.7	417
6	Origin, dynamics and evolution of ocean garbage patches from observed surface drifters. Environmental Research Letters, 2012, 7, 044040.	2.2	380
7	Lagrangian ocean analysis: Fundamentals and practices. Ocean Modelling, 2018, 121, 49-75.	1.0	313
8	Connectivity Modeling System: A probabilistic modeling tool for the multi-scale tracking of biotic and abiotic variability in the ocean. Environmental Modelling and Software, 2013, 42, 47-54.	1.9	270
9	All is not lost: deriving a top-down mass budget of plastic at sea. Environmental Research Letters, 2017, 12, 114028.	2.2	231
10	Antarcticaâ€™s ecological isolation will be broken by storm-driven dispersal and warming. Nature Climate Change, 2018, 8, 704-708.	8.1	220
11	Plastics in sea surface waters around the Antarctic Peninsula. Scientific Reports, 2019, 9, 3977.	1.6	210
12	Toward the Integrated Marine Debris Observing System. Frontiers in Marine Science, 2019, 6, .	1.2	178
13	An inshoreâ€“offshore sorting system revealed from global classification of ocean litter. Nature Sustainability, 2021, 4, 484-493.	11.5	178
14	The Parcels v2.0 Lagrangian framework: new field interpolation schemes. Geoscientific Model Development, 2019, 12, 3571-3584.	1.3	172
15	Plastic pollution in the Arctic. Nature Reviews Earth & Environment, 2022, 3, 323-337.	12.2	161
16	The Role of Ekman Currents, Geostrophy, and Stokes Drift in the Accumulation of Floating Microplastic. Journal of Geophysical Research: Oceans, 2019, 124, 1474-1490.	1.0	159
17	Using Numerical Model Simulations to Improve the Understanding of Micro-plastic Distribution and Pathways in the Marine Environment. Frontiers in Marine Science, 2017, 4, .	1.2	157
18	The occurrence and degradation of aquatic plastic litter based on polymer physicochemical properties: A review. Critical Reviews in Environmental Science and Technology, 2018, 48, 685-722.	6.6	148

#	Article	IF	Citations
19	Biogeographic patterns in ocean microbes emerge in a neutral agent-based model. Science, 2014, 345, 1346-1349.	6.0	141
20	Risk analysis reveals global hotspots for marine debris ingestion by sea turtles. Global Change Biology, 2016, 22, 567-576.	4.2	139
21	Advection shapes Southern Ocean microbial assemblages independent of distance and environment effects. Nature Communications, 2013, 4, 2457.	5.8	123
22	Longâ€term trends in the East Australian Current separation latitude and eddy driven transport. Journal of Geophysical Research: Oceans, 2014, 119, 4351-4366.	1.0	116
23	Parcels v0.9: prototyping a Lagrangian ocean analysis framework for the petascale age. Geoscientific Model Development, 2017, 10, 4175-4186.	1.3	115
24	Modeling marine surface microplastic transport to assess optimal removal locations. Environmental Research Letters, 2016, 11, 014006.	2.2	107
25	Pacificâ€toâ€Indian Ocean connectivity: Tasman leakage, Indonesian Throughflow, and the role of ENSO. Journal of Geophysical Research: Oceans, 2014, 119, 1365-1382.	1.0	105
26	Risk assessment of plastic pollution on marine diversity in the Mediterranean Sea. Science of the Total Environment, 2019, 678, 188-196.	3.9	105
27	Anticyclonic eddies increase accumulation of microplastic in the North Atlantic subtropical gyre. Marine Pollution Bulletin, 2018, 126, 191-196.	2.3	104
28	Global simulations of marine plastic transport show plastic trapping in coastal zones. Environmental Research Letters, 2021, 16, 064053.	2.2	91
29	How well-connected is the surface of the global ocean?. Chaos, 2014, 24, 033126.	1.0	89
30	Measuring currents, ice drift, and waves from space: the Sea surface KInematics Multiscale monitoring (SKIM) concept. Ocean Science, 2018, 14, 337-354.	1.3	87
31	Influence of Nearâ€Surface Currents on the Global Dispersal of Marine Microplastic. Journal of Geophysical Research: Oceans, 2019, 124, 6086-6096.	1.0	85
32	Drift in ocean currents impacts intergenerational microbial exposure to temperature. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5700-5705.	3.3	78
33	Atlantic multi-decadal oscillation covaries with Agulhas leakage. Nature Communications, 2015, 6, 10082.	5.8	71
34	Closing the Mediterranean Marine Floating Plastic Mass Budget: Inverse Modeling of Sources and Sinks. Environmental Science & Technology, 2020, 54, 11980-11989.	4.6	71
35	Concept for a hyperspectral remote sensing algorithm for floating marine macro plastics. Marine Pollution Bulletin, 2018, 126, 255-262.	2.3	70
36	Global Modeled Sinking Characteristics of Biofouled Microplastic. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC017098.	1.0	69

#	Article	IF	Citations
37	Ocean currents generate large footprints in marine palaeoclimate proxies. Nature Communications, 2015, 6, 6521.	5.8	66
38	A weaker Agulhas Current leads to more Agulhas leakage. Geophysical Research Letters, 2009, 36, .	1.5	65
39	Strengthened currents override the effect of warming on lobster larval dispersal and survival. Global Change Biology, 2015, 21, 4377-4386.	4.2	65
40	The true depth of the Mediterranean plastic problem: Extreme microplastic pollution on marine turtle nesting beaches in Cyprus. Marine Pollution Bulletin, 2018, 136, 334-340.	2.3	65
41	Prevention through policy: Urban macroplastic leakages to the marine environment during extreme rainfall events. Marine Pollution Bulletin, 2017, 124, 211-227.	2.3	63
42	What caused the significant increase in Atlantic Ocean heat content since the mid-20th century?. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	62
43	Vertical transport in the ocean due to sub-mesoscale structures: Impacts in the Kerguelen region. Ocean Modelling, 2014, 80, 10-23.	1.0	62
44	Inferring source regions and supply mechanisms of iron in the Southern Ocean from satellite chlorophyll data. Deep-Sea Research Part I: Oceanographic Research Papers, 2015, 104, 9-25.	0.6	61
45	Anticipating changes to future connectivity within a network of marine protected areas. Global Change Biology, 2017, 23, 3533-3542.	4.2	60
46	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
47	Multi-decadal projections of surface and interior pathways of the Fukushima Cesium-137 radioactive plume. Deep-Sea Research Part I: Oceanographic Research Papers, 2013, 80, 37-46.	0.6	59
48	Abyssal connections of Antarctic Bottom Water in a Southern Ocean State Estimate. Geophysical Research Letters, 2013, 40, 2177-2182.	1.5	57
49	The Southern Ocean and Its Climate in CCSM4. Journal of Climate, 2012, 25, 2652-2675.	1.2	56
50	Future changes to the Indonesian Throughflow and Pacific circulation: The differing role of wind and deep circulation changes. Geophysical Research Letters, 2016, 43, 1669-1678.	1.5	56
51	Propagation pathways of classical Labrador Sea water from its source region to 26Â°N. Journal of Geophysical Research, 2011, 116, .	3.3	54
52	SKIM, a Candidate Satellite Mission Exploring Global Ocean Currents and Waves. Frontiers in Marine Science, 2019, 6, .	1.2	52
53	Early Last Interglacial ocean warming drove substantial ice mass loss from Antarctica. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3996-4006.	3.3	50
54	Role of Indian Ocean Dynamics on Accumulation of Buoyant Debris. Journal of Geophysical Research: Oceans, 2019, 124, 2571-2590.	1.0	48

#	Article	IF	Citations
55	Tasman leakage in a fineâ€resolution ocean model. Geophysical Research Letters, 2012, 39, .	1.5	47
56	Impact of Agulhas Leakage on the Atlantic Overturning Circulation in the CCSM4. Journal of Climate, 2014, 27, 101-110.	1.2	46
57	Beaching patterns of plastic debris along the Indian Ocean rim. Ocean Science, 2020, 16, 1317-1336.	1.3	45
58	Extreme airâ€“sea interaction over the North Atlantic subpolar gyre during the winter of 2013â€“2014 and its sub-surface legacy. Climate Dynamics, 2016, 46, 4027-4045.	1.7	44
59	Lagrangian validation of numerical drifter trajectories using drifting buoys: Application to the Agulhas system. Ocean Modelling, 2009, 29, 269-276.	1.0	43
60	Quantification of errors induced by temporal resolution on Lagrangian particles in an eddy-resolving model. Ocean Modelling, 2014, 76, 20-30.	1.0	42
61	Advective Time Scales of Agulhas Leakage to the North Atlantic in Surface Drifter Observations and the 3D OFES Model. Journal of Physical Oceanography, 2011, 41, 1026-1034.	0.7	41
62	The fate of the Deep Western Boundary Current in the South Atlantic. Deep-Sea Research Part I: Oceanographic Research Papers, 2015, 103, 125-136.	0.6	41
63	Rare longâ€distance dispersal of a marine angiosperm across the Pacific Ocean. Global Ecology and Biogeography, 2018, 27, 487-496.	2.7	41
64	Does the vorticity flux from Agulhas rings control the zonal pathway of NADW across the South Atlantic?. Journal of Geophysical Research, 2012, 117, .	3.3	40
65	The oceansâ€™ accumulating plastic garbage. Physics Today, 2015, 68, 60-61.	0.3	40
66	Water mass pathways to the <scp>N</scp>orth <scp>A</scp>tlantic oxygen minimum zone. Journal of Geophysical Research: Oceans, 2015, 120, 3350-3372.	1.0	40
67	Basin-scale sources and pathways of microplastic that ends up in the GalÃ¡pagos Archipelago. Ocean Science, 2019, 15, 1341-1349.	1.3	40
68	On-shelf larval retention limits population connectivity in a coastal broadcast spawner. Marine Ecology - Progress Series, 2015, 532, 1-12.	0.9	40
69	On the fast decay of Agulhas rings. Journal of Geophysical Research, 2010, 115, .	3.3	39
70	Response of a Strongly Eddying Global Ocean to North Atlantic Freshwater Perturbations. Journal of Physical Oceanography, 2014, 44, 464-481.	0.7	39
71	Estimating the Mass of Chemicals Associated with Ocean Plastic Pollution to Inform Mitigation Efforts. Integrated Environmental Assessment and Management, 2019, 15, 596-606.	1.6	38
72	Flux comparison of Eulerian and Lagrangian estimates of Agulhas leakage: A case study using a numerical model. Deep-Sea Research Part I: Oceanographic Research Papers, 2010, 57, 319-327.	0.6	36

#	Article	IF	Citations
73	Adrift.org.au â€" A free, quick and easy tool to quantitatively study planktonic surface drift in the global ocean. Journal of Experimental Marine Biology and Ecology, 2014, 461, 317-322.	0.7	36
74	Sources, fate, and pathways of Leeuwin Current water in the Indian Ocean and Great Australian Bight: A Lagrangian study in an eddyâ€resolving ocean model. Journal of Geophysical Research: Oceans, 2016, 121, 1626-1639.	1.0	34
75	Influence of Barotropic Tidal Currents on Transport and Accumulation of Floating Microplastics in the Global Open Ocean. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015583.	1.0	34
76	Oceanography promotes self-recruitment in a planktonic larval disperser. Scientific Reports, 2016, 6, 34205.	1.6	32
77	Wind Forced Variability in Eddy Formation, Eddy Shedding, and the Separation of the East Australian Current. Journal of Geophysical Research: Oceans, 2017, 122, 9980-9998.	1.0	32
78	Transport Bias by Ocean Currents in Sedimentary Microplankton Assemblages: Implications for Paleoceanographic Reconstructions. Paleoceanography and Paleoclimatology, 2019, 34, 1178-1194.	1.3	32
79	Phytoplankton thermal responses adapt in the absence of hard thermodynamic constraints. Evolution; International Journal of Organic Evolution, 2020, 74, 775-790.	1.1	32
80	Variability of the Deep Western Boundary Current at 26.5Â°N during 2004â€“2009. Deep-Sea Research Part II: Topical Studies in Oceanography, 2013, 85, 154-168.	0.6	31
81	Studying an Agulhas ring's long-term pathway and decay with finite-time coherent sets. Chaos, 2015, 25, 083119.	1.0	31
82	Episodic and non-uniform shifts of thermal habitats in a warming ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2015, 113, 59-72.	0.6	31
83	Quantitative estimate of the paleoâ€Agulhas leakage. Geophysical Research Letters, 2014, 41, 1238-1246.	1.5	29
84	Dispersal of Eastern King Prawn larvae in a western boundary current: New insights from particle tracking. Fisheries Oceanography, 2017, 26, 513-525.	0.9	29
85	Surface Connectivity and Interocean Exchanges From Drifterâ€Based Transition Matrices. Journal of Geophysical Research: Oceans, 2018, 123, 514-532.	1.0	29
86	Fast Northward Energy Transfer in the Atlantic due to Agulhas Rings. Journal of Physical Oceanography, 2007, 37, 2305-2315.	0.7	28
87	The quest for seafloor macrolitter: a critical review of background knowledge, current methods and future prospects. Environmental Research Letters, 0, , .	2.2	28
88	An individual-based model of skipjack tuna (Katsuwonus pelamis) movement in the tropical Pacific ocean. Progress in Oceanography, 2018, 164, 63-74.	1.5	27
89	Modelling size distributions of marine plastics under the influence of continuous cascading fragmentation. Environmental Research Letters, 2021, 16, 054075.	2.2	27
90	Quasi-zonal jets in 3-D Argo data of the northeast Atlantic. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	26

#	Article	IF	Citations
91	Laboratory Measurements of the Waveâ€Induced Motion of Plastic Particles: Influence of Wave Period, Plastic Size and Plastic Density. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016294.	1.0	26
92	Sinking microplastics in the water column: simulations in the Mediterranean Sea. Ocean Science, 2021, 17, 431-453.	1.3	26
93	A global mean sea surface temperature dataset for the Last Interglacial (129â€“116â€‰ka) and contribution of thermal expansion to sea level change. Earth System Science Data, 2020, 12, 3341-3356.	3.7	26
94	Ongoing Dispersal of the 7 August 2019 Pumice Raft From the Tonga Arc in the Southwestern Pacific Ocean. Geophysical Research Letters, 2020, 47, e1701121.	1.5	25
95	Pairwise surface drifter separation in the western Pacific sector of the Southern Ocean. Journal of Geophysical Research: Oceans, 2015, 120, 6769-6781.	1.0	23
96	Tropical forcing of increased Southern Ocean climate variability revealed by a 140-year subantarctic temperature reconstruction. Climate of the Past, 2017, 13, 231-248.	1.3	23
97	Iron sources and pathways into the Pacific Equatorial Undercurrent. Geophysical Research Letters, 2016, 43, 9843-9851.	1.5	23
98	Variability in the origins and pathways of <scp>P</scp>acific <scp>E</scp>quatorial <scp>U</scp>ndercurrent water. Journal of Geophysical Research: Oceans, 2015, 120, 3113-3128.	1.0	22
99	Modelling submerged biofouled microplastics and their vertical trajectories. Biogeosciences, 2022, 19, 2211-2234.	1.3	22
100	Retention and Leakage of Water by Mesoscale Eddies in the East Australian Current System. Journal of Geophysical Research: Oceans, 2019, 124, 2485-2500.	1.0	21
101	Assessing the accuracy of satellite derived ocean currents by comparing observed and virtual buoys in the Greater Agulhas Region. Remote Sensing of Environment, 2018, 216, 735-746.	4.6	20
102	Cocos (Keeling) Corals Reveal 200ÂYears of Multidecadal Modulation of Southeast Indian Ocean Hydrology by Indonesian Throughflow. Paleoceanography and Paleoclimatology, 2018, 33, 48-60.	1.3	19
103	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. PLoS ONE, 2020, 15, e0238650.	1.1	18
104	Dispersion of Surface Drifters in the Tropical Atlantic. Frontiers in Marine Science, 2021, 7, .	1.2	17
105	Brief communication: Impacts of a developing polynya off Commonwealth Bay, East Antarctica, triggered by grounding of iceberg B09B. Cryosphere, 2016, 10, 2603-2609.	1.5	16
106	The Role of Ocean Currents in the Temperature Selection of Plankton: Insights from an Individual-Based Model. PLoS ONE, 2016, 11, e0167010.	1.1	16
107	Circadian clock helps cyanobacteria manage energy in coastal and high latitude ocean. ISME Journal, 2020, 14, 560-568.	4.4	16
108	Optimising fisheries management in relation to tuna catches in the western central Pacific Ocean: A review of research priorities and opportunities. Marine Policy, 2015, 59, 94-104.	1.5	15

#	Article	IF	Citations
109	Environmental versus operational drivers of drifting FAD beaching in the Western and Central Pacific Ocean. Scientific Reports, 2019, 9, 14005.	1.6	15
110	Advective Time Scales of Agulhas Leakage to the North Atlantic in Surface Drifter Observations and the 3D OFES Model. Journal of Physical Oceanography, 2011, 41, 1026-1034.	0.7	13
111	The Role of the New Zealand Plateau in the Tasman Sea Circulation and Separation of the East Australian Current. Journal of Geophysical Research: Oceans, 2018, 123, 1457-1470.	1.0	13
112	Paleo Agulhas rings enter the subtropical gyre during the penultimate deglaciation. Climate of the Past, 2013, 9, 2631-2639.	1.3	13
113	Evaluation of oxygen isotopes and trace elements in planktonic foraminifera from the Mediterranean Sea as recorders of seawater oxygen isotopes and salinity. Climate of the Past, 2020, 16, 2401-2414.	1.3	12
114	Sea surface slope as a proxy for Agulhas Current strength. Geophysical Research Letters, 2010, 37, .	1.5	11
115	Isolation by environment in the highly mobile olive ridley turtle (Lepidochelys olivacea) in the eastern Pacific. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180264.	1.2	11
116	Subtropical-tropical pathways of spiciness anomalies and their impact on equatorial Pacific temperature. Climate Dynamics, 2021, 56, 1131-1144.	1.7	11
117	The discovery of New Zealand's oldest shipwreck â€“ possible evidence of further Dutch exploration of the South Pacific. Journal of Archaeological Science, 2014, 42, 435-441.	1.2	10
118	Empirical Lagrangian parametrization for wind-driven mixing of buoyant particles at the ocean surface. Geoscientific Model Development, 2022, 15, 1995-2012.	1.3	10
119	Using Eulerian and Lagrangian Approaches to Investigate Wind-Driven Changes in the Southern Ocean Abyssal Circulation. Journal of Physical Oceanography, 2013, 44, 662-675.	0.7	9
120	Identifying Marine Sources of Beached Plastics Through a Bayesian Framework: Application to Southwest Netherlands. Geophysical Research Letters, 2022, 49, .	1.5	9
121	Live cell analysis at sea reveals divergent thermal performance between photosynthetic ocean microbial eukaryote populations. ISME Journal, 2019, 13, 1374-1378.	4.4	8
122	Regional connectivity and spatial densities of drifting fish aggregating devices, simulated from fishing events in the Western and Central Pacific Ocean. Environmental Research Communications, 2019, 1, 055001.	0.9	7
123	Using machine learning and beach cleanup data to explain litter quantities along the Dutch North Sea coast. Ocean Science, 2022, 18, 269-293.	1.3	7
124	Nitrate Sources, Supply, and Phytoplankton Growth in the Great Australian Bight: An Eulerianâ€Lagrangian Modeling Approach. Journal of Geophysical Research: Oceans, 2018, 123, 759-772.	1.0	6
125	Mixing of passive tracers at the ocean surface and its implications for plastic transport modelling. Environmental Research Communications, 2019, 1, 115001.	0.9	6
126	Ordering of trajectories reveals hierarchical finite-time coherent sets in Lagrangian particle data: detecting Agulhas rings in the South Atlantic Ocean. Nonlinear Processes in Geophysics, 2021, 28, 43-59.	0.6	6

#	Article	IF	Citations
127	Detecting flow features in scarce trajectory data using networks derived from symbolic itineraries: an application to surface drifters in the North Atlantic. Nonlinear Processes in Geophysics, 2020, 27, 501-518.	0.6	6
128	Simulating Lagrangian Subgridâ€Scale Dispersion on Neutral Surfaces in the Ocean. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	5
129	Limited Lateral Transport Bias During Export of Sea Surface Temperature Proxy Carriers in the Mediterranean Sea. Geophysical Research Letters, 2022, 49, .	1.5	5
130	Ocean Surface Connectivity in the Arctic: Capabilities and Caveats of Community Detection in Lagrangian Flow Networks. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016416.	1.0	4
131	Water Mass Transports and Pathways in the North Brazilâ€Equatorial Undercurrent Retroflection. Journal of Geophysical Research: Oceans, 2022, 127, .	1.0	3
132	Sedimentary microplankton distributions are shaped by oceanographically connected areas. Earth System Dynamics, 2022, 13, 357-371.	2.7	3
133	PRACTICES, PITFALLS AND GUIDELINES IN VISUALISING LAGRANGIAN OCEAN ANALYSES. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-4-2021, 217-224.	0.0	2
134	The restless ocean. , 2021, , 1-24.		0
135	Western boundary currents and drifting organisms. , 2021, , 103-143.		0
136	Processes and flows in marginal seas. , 2021, , 375-448.		0
137	Surface drift, gyres, and the fate of plastic. , 2021, , 63-102.		0
138	Ocean boundaries, connectivity, and inter-ocean exchanges. , 2021, , 449-460.		0
139	From the northern subpolar oceans to the Arctic and its retreating sea ice. , 2021, , 241-301.		0
140	The tropical oceans, interannual climate variability, and ecosystem adaptation. , 2021, , 189-239.		0
141	From the Southern Ocean to Antarctica and its changing ice shelves. , 2021, , 303-373.		0
142	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. , 2020, 15, e0238650.		0
143	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. , 2020, 15, e0238650.		0
144	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. , 2020, 15, e0238650.		0

#	Article	IF	Citations
145	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. , 2020, 15, e0238650.		0
146	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. , 2020, 15, e0238650.		0
147	Resolution dependency of sinking Lagrangian particles in ocean general circulation models. , 2020, 15, e0238650.		0
148	Attribution of Plastic Sources Using Bayesian Inference: Application to River-Sourced Floating Plastic in the South Atlantic Ocean. Frontiers in Marine Science, 0, 9, .	1.2	0