Marina Levy

List of Publications by Year
in descending order

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Version: 2024-02-01

107	6,792	66234	69108
papers	citations	42 h-index	77 g-index

123	123	123	6171
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-faceted particle pumps drive carbon sequestration in the ocean. Nature, 2019, 568, 327-335.	13.7	455
2	Influence of diatom diversity on the ocean biological carbon pump. Nature Geoscience, 2018, 11, 27-37.	5.4	451
3	Impact of sub-mesoscale physics on production and subduction of phytoplankton in an oligotrophic regime. Journal of Marine Research, 2001, 59, 535-565.	0.3	396
4	Bringing physics to life at the submesoscale. Geophysical Research Letters, 2012, 39, .	1.5	327
5	A reduction in marine primary productivity driven by rapid warming over the tropical Indian Ocean. Geophysical Research Letters, 2016, 43, 826-833.	1.5	264
6	Fluid dynamical niches of phytoplankton types. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18366-18370.	3.3	237
7	The role of submesoscale currents in structuring marine ecosystems. Nature Communications, 2018, 9, 4758.	5.8	234
8	Surface-water iron supplies in the Southern Ocean sustained by deep winter mixing. Nature Geoscience, 2014, 7, 314-320.	5.4	223
9	Stirring of the northeast Atlantic spring bloom: A Lagrangian analysis based on multisatellite data. Journal of Geophysical Research, 2007, 112, .	3.3	206
10	Basinâ€wide seasonal evolution of the Indian Ocean's phytoplankton blooms. Journal of Geophysical Research, 2007, 112, .	3.3	182
11	Altimetry for the future: Building on 25 years of progress. Advances in Space Research, 2021, 68, 319-363.	1.2	119
12	Modifications of gyre circulation by sub-mesoscale physics. Ocean Modelling, 2010, 34, 1-15.	1.0	118
13	Large-scale impacts of submesoscale dynamics on phytoplankton: Local and remote effects. Ocean Modelling, 2012, 43-44, 77-93.	1.0	117
14	Choice of an advection scheme for biogeochemical models. Geophysical Research Letters, 2001, 28, 3725-3728.	1.5	111
15	Scaleâ€dependent interactions of Mediterranean whales with marine dynamics. Limnology and Oceanography, 2011, 56, 219-232.	1.6	95
16	The onset of a bloom after deep winter convection in the northwestern Mediterranean sea: mesoscale process study with a primitive equation model. Journal of Marine Systems, 1998, 16, 7-21.	0.9	92
17	Simulation of primary production and export fluxes in the Northwestern Mediterranean Sea. Journal of Marine Research, 1998, 56, 197-238.	0.3	91
18	The Modulation of Biological Production by Oceanic Mesoscale Turbulence. , 2008, , 219-261.		87

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19	Controlling factors of the oxygen balance in the Arabian Sea's OMZ. Biogeosciences, 2012, 9, 5095-5109.	1.3	83
20	Seasonal and intraseasonal surface chlorophyllâ€a variability along the northwest African coast. Journal of Geophysical Research, 2008, 113, .	3.3	81
21	Long range transport of a quasi isolated chlorophyll patch by an Agulhas ring. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	80
22	Physical pathways for carbon transfers between the surface mixed layer and the ocean interior. Global Biogeochemical Cycles, 2013, 27, 1001-1012.	1.9	75
23	Impact of nearshore wind stress curl on coastal circulation and primary productivity in the Peru upwelling system. Journal of Geophysical Research, 2010, 115, .	3.3	74
24	Contribution of mesoscale processes to nutrient budgets in the Arabian Sea. Journal of Geophysical Research, 2011, 116, .	3.3	73
25	Flexible preference of southern elephant seals for distinct mesoscale features within the Antarctic Circumpolar Current. Progress in Oceanography, 2015, 131, 46-58.	1.5	73
26	Effects of Eddyâ€Driven Subduction on Ocean Biological Carbon Pump. Global Biogeochemical Cycles, 2019, 33, 1071-1084.	1.9	67
27	Mesoscale variability of phytoplankton and of new production: Impact of the large-scale nutrient distribution. Journal of Geophysical Research, 2003, 108, .	3.3	66
28	Seasonal and intraseasonal biogeochemical variability in the thermocline ridge of the southern tropical Indian Ocean. Journal of Geophysical Research, 2009, 114, .	3.3	65
29	Production regimes in the northeast Atlantic: A study based on Sea-viewing Wide Field-of-view Sensor (SeaWiFS) chlorophyll and ocean general circulation model mixed layer depth. Journal of Geophysical Research, 2005, 110, .	3.3	63
30	The dynamical landscape of marine phytoplankton diversity. Journal of the Royal Society Interface, 2015, 12, 20150481.	1.5	62
31	Phytoplankton diversity and community structure affected by oceanic dispersal and mesoscale turbulence. Limnology & Oceanography Fluids & Environments, 2014, 4, 67-84.	1.7	54
32	Intensification and deepening of the Arabian Sea oxygen minimum zone in response to increase in Indian monsoon wind intensity. Biogeosciences, 2018, 15, 159-186.	1.3	53
33	Major Impact of Dust Deposition on the Productivity of the Arabian Sea. Geophysical Research Letters, 2019, 46, 6736-6744.	1.5	53
34	Frigatebird behaviour at the oceanâ€“atmosphere interface: integrating animal behaviour with multi-satellite data. Journal of the Royal Society Interface, 2012, 9, 3351-3358.	1.5	51
35	Strong Intensification of the Arabian Sea Oxygen Minimum Zone in Response to Arabian Gulf Warming. Geophysical Research Letters, 2019, 46, 5420-5429.	1.5	51
36	A four-dimensional mesoscale map of the spring bloom in the northeast Atlantic (POMME experiment): Results of a prognostic model. Journal of Geophysical Research, 2005, 110, .	3.3	50

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37	How does dynamical spatial variability impact 234Th-derived estimates of organic export?. Deep-Sea Research Part I: Oceanographic Research Papers, 2012, 68, 24-45.	0.6	49
38	Does the low frequency variability of mesoscale dynamics explain a part of the phytoplankton and zooplankton spectral variability?. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 1673-1687.	1.0	48
39	Intraseasonal variability of nearshore productivity in the Northern Humboldt Current System: The role of coastal trapped waves. Continental Shelf Research, 2014, 73, 14-30.	0.9	48
40	Physical and biogeochemical controls of the phytoplankton seasonal cycle in the Indian Ocean: A modeling study. Geophysical Monograph Series, 2009, , 147-166.	0.1	46
41	The onset of the Spring Bloom in the MEDOC area: mesoscale spatial variability. Deep-Sea Research Part I: Oceanographic Research Papers, 1999, 46, 1137-1160.	0.6	45
42	On the role of the mesoscale circulation on an idealized coastal upwelling ecosystem. Journal of Geophysical Research, 2010, 115, .	3.3	45
43	Intraseasonal variability linked to sampling alias in air-sea CO₂ fluxes in the Southern Ocean. Geophysical Research Letters, 2015, 42, 8507-8514.	1.5	45
44	Global impact of tropical cyclones on primary production. Global Biogeochemical Cycles, 2016, 30, 767-786.	1.9	45
45	Grid degradation of submesoscale resolving ocean models: Benefits for offline passive tracer transport. Ocean Modelling, 2012, 48, 1-9.	1.0	44
46	The influence of mesoscale and submesoscale heterogeneity on ocean biogeochemical reactions. Global Biogeochemical Cycles, 2013, 27, 1139-1150.	1.9	44
47	Eddies reduce denitrification and compress habitats in the Arabian Sea. Geophysical Research Letters, 2016, 43, 9148-9156.	1.5	43
48	A mechanistic modelling and data assimilation approach to estimate the carbon/chlorophyll and carbon/nitrogen ratios in a coupled hydrodynamical-biological model. Nonlinear Processes in Geophysics, 2004, 11, 515-533.	0.6	42
49	The Contribution of Submesoscale over Mesoscale Eddy Iron Transport in the Open Southern Ocean. Journal of Advances in Modeling Earth Systems, 2019, 11, 3934-3958.	1.3	42
50	Combined effects of mesoscale processes and atmospheric high-frequency variability on the spring bloom in the MEDOC area. Deep-Sea Research Part I: Oceanographic Research Papers, 2000, 47, 27-53.	0.6	41
51	Can biogeochemical fluxes be recovered from nitrate and chlorophyll data? A case study assimilating data in the Northwestern Mediterranean Sea at the JGOFS-DYFAMED station. Journal of Marine Systems, 2003, 40-41, 99-125.	0.9	41
52	Reconstruction of satellite chlorophyll images under heavy cloud coverage using a neural classification method. Remote Sensing of Environment, 2013, 131, 232-246.	4.6	41
53	Pathways of anthropogenic carbon subduction in the global ocean. Geophysical Research Letters, 2015, 42, 6416-6423.	1.5	41
54	Vertical eddy iron fluxes support primary production in the open Southern Ocean. Nature Communications, 2020, 11, 1125.	5.8	41

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55	New production stimulated by highâ€frequency winds in a turbulent mesoscale eddy field. Geophysical Research Letters, 2009, 36, .	1.5	40
56	Positive Indian Ocean Dipole events prevent anoxia off the west coast of India. Biogeosciences, 2017, 14, 1541-1559.	1.3	40
57	Onset, intensification, and decline of phytoplankton blooms in the Southern Ocean. ICES Journal of Marine Science, 2015, 72, 1971-1984.	1.2	39
58	Oxygen Minimum Zone Contrasts Between the Arabian Sea and the Bay of Bengal Implied by Differences in Remineralization Depth. Geophysical Research Letters, 2017, 44, 11,106.	1.5	39
59	Phytoplankton growth formulation in marine ecosystem models: Should we take into account photo-acclimation and variable stoichiometry in oligotrophic areas?. Journal of Marine Systems, 2013, 125, 29-40.	0.9	38
60	Intraseasonal variability of mixed layer depth in the tropical Indian Ocean. Climate Dynamics, 2016, 46, 2633-2655.	1.7	38
61	On the key role of nutrient data to constrain a coupled physicalâ€“biogeochemical assimilative model of the North Atlantic Ocean. Journal of Marine Systems, 2009, 75, 100-115.	0.9	35
62	Investigation into the impact of storms on sustaining summer primary productivity in the Subâ€Antarctic Ocean. Geophysical Research Letters, 2016, 43, 9192-9199.	1.5	34
63	Characterization of distinct bloom phenology regimes in the Southern Ocean. ICES Journal of Marine Science, 2015, 72, 1985-1998.	1.2	33
64	Do Sardinella aurita spawning seasons match local retention patterns in the Senegaleseâ€“Mauritanian upwelling region?. Fisheries Oceanography, 2015, 24, 69-89.	0.9	30
65	Mesoscale variability of sea surface pCO2: What does it respond to?. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	28
66	Impact of submesoscale variability in estimating the airâ€sea CO₂ exchange: Results from a model study of the POMME experiment. Global Biogeochemical Cycles, 2009, 23, .	1.9	27
67	Subduction of carbon, nitrogen, and oxygen in the northeast Atlantic. Journal of Geophysical Research, 2011, 116, .	3.3	26
68	Impact of episodic vertical fluxes on sea surface pCO ₂. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2009-2025.	1.6	26
69	Contribution of tropical cyclones to the airâ€sea CO₂ flux: A global view. Global Biogeochemical Cycles, 2012, 26, .	1.9	26
70	Nonmonotonic Response of Primary Production and Export to Changes in Mixedâ€Layer Depth in the Southern Ocean. Geophysical Research Letters, 2019, 46, 3368-3377.	1.5	24
71	A high-resolution simulation of the ocean during the POMME experiment: Simulation results and comparison with observations. Journal of Geophysical Research, 2005, 110, .	3.3	23
72	Impact of the subtropical mode water biogeochemical properties on primary production in the North Atlantic: New insights from an idealized model study. Journal of Geophysical Research, 2009, 114, .	3.3	23

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73	Physical control of interannual variations of the winter chlorophyll bloom in the northern Arabian Sea. Biogeosciences, 2017, 14, 3615-3632.	1.3	23
74	Fast local warming is the main driver of recent deoxygenation in the northern Arabian Sea. Biogeosciences, 2021, 18, 5831-5849.	1.3	23
75	Modifications of mode water properties by sub-mesoscales in a bio-physical model of the Northeast Atlantic. Ocean Modelling, 2011, 39, 47-60.	1.0	22
76	Oceanic mesoscale turbulence drives large biogeochemical interannual variability at middle and high latitudes. Geophysical Research Letters, 2014, 41, 2467-2474.	1.5	22
77	Impact of eddy-driven vertical fluxes on phytoplankton abundance in the euphotic layer. Journal of Plankton Research, 2011, 33, 827-831.	0.8	21
78	Oceanic primary production decline halved in eddy-resolving simulations of global warming. Biogeosciences, 2021, 18, 4321-4349.	1.3	21
79	The Oceansâ€™ Biological Carbon Pumps: Framework for a Research Observational Community Approach. Frontiers in Marine Science, 2021, 8, .	1.2	21
80	Submesoscales Enhance Stormâ€Driven Vertical Mixing ofÂNutrients: Insights From a Biogeochemical Large EddyÂSimulation. Journal of Geophysical Research: Oceans, 2019, 124, 8140-8165.	1.0	20
81	The relevant time scales in estimating the airâ€“sea CO2 exchange in a mid-latitude region. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 2067-2092.	0.6	19
82	Low-frequency and high-frequency oscillatory winds synergistically enhance nutrient entrainment and phytoplankton at fronts. Journal of Geophysical Research: Oceans, 2017, 122, 1016-1041.	1.0	19
83	Iron Supply Pathways Between the Surface and Subsurface Waters of the Southern Ocean: From Winter Entrainment to Summer Storms. Geophysical Research Letters, 2019, 46, 14567-14575.	1.5	19
84	Exploration of the critical depth hypothesis with a simple NPZ model. ICES Journal of Marine Science, 2015, 72, 1916-1925.	1.2	18
85	Synopticâ€toâ€planetary scale wind variability enhances phytoplankton biomass at ocean fronts. Journal of Geophysical Research: Oceans, 2017, 122, 4602-4633.	1.0	16
86	The Biological Pump and Seasonal Variability of pCO₂ in the Southern Ocean: Exploring the Role of Diatom Adaptation to Low Iron. Journal of Geophysical Research: Oceans, 2018, 123, 3204-3226.	1.0	15
87	Subâ€Seasonal Forcing Drives Yearâ€Toâ€Year Variations of Southern Ocean Primary Productivity. Global Biogeochemical Cycles, 2022, 36, .	1.9	15
88	The crucial contribution of mixing to present and future ocean oxygen distribution. , 2022, , 329-344.		14
89	Plankton community response to fronts: winners and losers. Journal of Plankton Research, 2022, 44, 241-258.	0.8	14
90	Phytoplankton plasticity drives large variability in carbon fixation efficiency. Geophysical Research Letters, 2014, 41, 8994-9000.	1.5	13

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91	A high-resolution simulation of the ocean during the POMME experiment: Mesoscale variability and near surface processes. Journal of Geophysical Research, 2007, 112, .	3.3	12
92	An observational assessment of the influence of mesoscale and submesoscale heterogeneity on ocean biogeochemical reactions. Global Biogeochemical Cycles, 2015, 29, 1421-1438.	1.9	12
93	Nutrients in remote mode. Nature, 2005, 437, 629-631.	13.7	11
94	Major Contribution of Reduced Upper Ocean Oxygen Mixing to Global Ocean Deoxygenation in an Earth System Model. Geophysical Research Letters, 2019, 46, 12239-12249.	1.5	11
95	Sensitivity of primary production to different eddy parameterizations: A case study of the spring bloom development in the northwestern Mediterranean Sea. Journal of Marine Research, 1999, 57, 427-448.	0.3	11
96	Contrasted Contribution of Intraseasonal Time Scales to Surface Chlorophyll Variations in a Bloom and an Oligotrophic Regime. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015701.	1.0	9
97	A quantitative method for describing the seasonal cycles of surface chlorophyll in the Indian Ocean. , 2006, , .		8
98	Intermittency in phytoplankton bloom triggered by modulations in vertical stability. Scientific Reports, 2021, 11, 1285.	1.6	8
99	Evaluating the Arabian Sea as a regional source of atmospheric CO₂: seasonal variability and drivers. Biogeosciences, 2022, 19, 907-929.	1.3	7
100	Estimating planktonic diversity through spatial dominance patterns in a model ocean. Marine Genomics, 2016, 29, 9-17.	0.4	5
101	Skills and Limitations of the Adiabatic Omega Equation: How Effective Is It to Retrieve Oceanic Vertical Circulation at Mesoscale and Submesoscale?. Journal of Physical Oceanography, 2021, 51, 931-954.	0.7	5
102	Nutrients in mode waters of the northeast Atlantic. Journal of Geophysical Research, 2009, 114, .	3.3	3
103	Intrinsic timescales of variability in a marine plankton model. Ecological Modelling, 2021, 443, 109446.	1.2	3
104	Estimating particle export flux from satellite observations: Challenges associated with spatial and temporal decoupling of production and export. Journal of Marine Research, 2019, 77, 247-258.	0.3	3
105	Multi-grid algorithm for passive tracer transport in the NEMO ocean circulation model: a case study with the NEMO OGCM (version 3.6). Geoscientific Model Development, 2020, 13, 5465-5483.	1.3	2
106	Lyapunov Exponents and Oceanic Fronts. Springer Proceedings in Complexity, 2017, , 199-201.	0.2	0
107	OPA9 â€" French Experiments on the Earth Simulator and Teraflop Workbench Tunings. , 2008, , 25-34.		0