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	The crucial contribution of mixing to present and future ocean oxygen distribution. , 2022, , 329-344.		14
2	Plankton community response to fronts: winners and losers. Journal of Plankton Research, 2022, 44, 241-258.	0.8	14
3	Evaluating the Arabian Sea as a regional source of atmospheric CO₂: seasonal variability and drivers. Biogeosciences, 2022, 19, 907-929.	1.3	7
4	Subâ€Seasonal Forcing Drives Yearâ€Toâ€Year Variations of Southern Ocean Primary Productivity. Global Biogeochemical Cycles, 2022, 36, .	1.9	15
5	Intermittency in phytoplankton bloom triggered by modulations in vertical stability. Scientific Reports, 2021, 11, 1285.	1.6	8
6	Intrinsic timescales of variability in a marine plankton model. Ecological Modelling, 2021, 443, 109446.	1.2	3
7	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
8	Oceanic primary production decline halved in eddy-resolving simulations of global warming. Biogeosciences, 2021, 18, 4321-4349.	1.3	21
9	Altimetry for the future: Building on 25 years of progress. Advances in Space Research, 2021, 68, 319-363.	1.2	119
10	Fast local warming is the main driver of recent deoxygenation in the northern Arabian Sea. Biogeosciences, 2021, 18, 5831-5849.	1.3	23
11	The Oceansâ€™ Biological Carbon Pumps: Framework for a Research Observational Community Approach. Frontiers in Marine Science, 2021, 8, .	1.2	21
12	Vertical eddy iron fluxes support primary production in the open Southern Ocean. Nature Communications, 2020, 11, 1125.	5.8	41
13	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
14	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
15	Effects of Eddyâ€Driven Subduction on Ocean Biological Carbon Pump. Global Biogeochemical Cycles, 2019, 33, 1071-1084.	1.9	67
16	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
17	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
18	Major Impact of Dust Deposition on the Productivity of the Arabian Sea. Geophysical Research Letters, 2019, 46, 6736-6744.	1.5	53

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19	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
20	Multi-faceted particle pumps drive carbon sequestration in the ocean. Nature, 2019, 568, 327-335.	13.7	455
21	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
22	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
23	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
24	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
25	Influence of diatom diversity on the ocean biological carbon pump. Nature Geoscience, 2018, 11, 27-37.	5.4	451
26	The role of submesoscale currents in structuring marine ecosystems. Nature Communications, 2018, 9, 4758.	5.8	234
27	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
28	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
29	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
30	Synopticâ€toâ€planetary scale wind variability enhances phytoplankton biomass at ocean fronts. Journal of Geophysical Research: Oceans, 2017, 122, 4602-4633.	1.0	16
31	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
32	Positive Indian Ocean Dipole events prevent anoxia off the west coast of India. Biogeosciences, 2017, 14, 1541-1559.	1.3	40
33	Physical control of interannual variations of the winter chlorophyll bloom in the northern Arabian Sea. Biogeosciences, 2017, 14, 3615-3632.	1.3	23
34	Lyapunov Exponents and Oceanic Fronts. Springer Proceedings in Complexity, 2017, , 199-201.	0.2	0
35	Estimating planktonic diversity through spatial dominance patterns in a model ocean. Marine Genomics, 2016, 29, 9-17.	0.4	5
36	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

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37	Eddies reduce denitrification and compress habitats in the Arabian Sea. Geophysical Research Letters, 2016, 43, 9148-9156.	1.5	43
38	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
39	Global impact of tropical cyclones on primary production. Global Biogeochemical Cycles, 2016, 30, 767-786.	1.9	45
40	Intraseasonal variability of mixed layer depth in the tropical Indian Ocean. Climate Dynamics, 2016, 46, 2633-2655.	1.7	38
41	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
42	Pathways of anthropogenic carbon subduction in the global ocean. Geophysical Research Letters, 2015, 42, 6416-6423.	1.5	41
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	Onset, intensification, and decline of phytoplankton blooms in the Southern Ocean. ICES Journal of Marine Science, 2015, 72, 1971-1984.	1.2	39
45	Exploration of the critical depth hypothesis with a simple NPZ model. ICES Journal of Marine Science, 2015, 72, 1916-1925.	1.2	18
46	Characterization of distinct bloom phenology regimes in the Southern Ocean. ICES Journal of Marine Science, 2015, 72, 1985-1998.	1.2	33
47	Do Sardinella aurita spawning seasons match local retention patterns in the Senegaleseâ€“Mauritanian upwelling region?. Fisheries Oceanography, 2015, 24, 69-89.	0.9	30
48	The dynamical landscape of marine phytoplankton diversity. Journal of the Royal Society Interface, 2015, 12, 20150481.	1.5	62
49	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
50	Phytoplankton plasticity drives large variability in carbon fixation efficiency. Geophysical Research Letters, 2014, 41, 8994-9000.	1.5	13
51	Surface-water iron supplies in the Southern Ocean sustained by deep winter mixing. Nature Geoscience, 2014, 7, 314-320.	5.4	223
52	Oceanic mesoscale turbulence drives large biogeochemical interannual variability at middle and high latitudes. Geophysical Research Letters, 2014, 41, 2467-2474.	1.5	22
53	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
54	Phytoplankton diversity and community structure affected by oceanic dispersal and mesoscale turbulence. Limnology & Oceanography Fluids & Environments, 2014, 4, 67-84.	1.7	54

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55	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
56	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
57	Physical pathways for carbon transfers between the surface mixed layer and the ocean interior. Global Biogeochemical Cycles, 2013, 27, 1001-1012.	1.9	75
58	The influence of mesoscale and submesoscale heterogeneity on ocean biogeochemical reactions. Global Biogeochemical Cycles, 2013, 27, 1139-1150.	1.9	44
59	Bringing physics to life at the submesoscale. Geophysical Research Letters, 2012, 39, .	1.5	327
60	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
61	Large-scale impacts of submesoscale dynamics on phytoplankton: Local and remote effects. Ocean Modelling, 2012, 43-44, 77-93.	1.0	117
62	Grid degradation of submesoscale resolving ocean models: Benefits for offline passive tracer transport. Ocean Modelling, 2012, 48, 1-9.	1.0	44
63	Contribution of tropical cyclones to the airâ€sea CO₂ flux: A global view. Global Biogeochemical Cycles, 2012, 26, .	1.9	26
64	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
65	Controlling factors of the oxygen balance in the Arabian Sea's OMZ. Biogeosciences, 2012, 9, 5095-5109.	1.3	83
66	Subduction of carbon, nitrogen, and oxygen in the northeast Atlantic. Journal of Geophysical Research, 2011, 116, .	3.3	26
67	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
68	Scaleâ€dependent interactions of Mediterranean whales with marine dynamics. Limnology and Oceanography, 2011, 56, 219-232.	1.6	95
69	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
70	Contribution of mesoscale processes to nutrient budgets in the Arabian Sea. Journal of Geophysical Research, 2011, 116, .	3.3	73
71	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
72	Impact of eddy-driven vertical fluxes on phytoplankton abundance in the euphotic layer. Journal of Plankton Research, 2011, 33, 827-831.	0.8	21

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73	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
74	On the role of the mesoscale circulation on an idealized coastal upwelling ecosystem. Journal of Geophysical Research, 2010, 115, .	3.3	45
75	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
76	Modifications of gyre circulation by sub-mesoscale physics. Ocean Modelling, 2010, 34, 1-15.	1.0	118
77	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
78	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
79	New production stimulated by highâ€frequency winds in a turbulent mesoscale eddy field. Geophysical Research Letters, 2009, 36, .	1.5	40
80	Nutrients in mode waters of the northeast Atlantic. Journal of Geophysical Research, 2009, 114, .	3.3	3
81	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
82	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
83	Seasonal and intraseasonal biogeochemical variability in the thermocline ridge of the southern tropical Indian Ocean. Journal of Geophysical Research, 2009, 114, .	3.3	65
84	The Modulation of Biological Production by Oceanic Mesoscale Turbulence. , 2008, , 219-261.		87
85	Seasonal and intraseasonal surface chlorophyllâ€a variability along the northwest African coast. Journal of Geophysical Research, 2008, 113, .	3.3	81
86	OPA9 â€" French Experiments on the Earth Simulator and Teraflop Workbench Tunings. , 2008, , 25-34.		0
87	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
88	Stirring of the northeast Atlantic spring bloom: A Lagrangian analysis based on multisatellite data. Journal of Geophysical Research, 2007, 112, .	3.3	206
89	Basinâ€wide seasonal evolution of the Indian Ocean's phytoplankton blooms. Journal of Geophysical Research, 2007, 112, .	3.3	182
90	A quantitative method for describing the seasonal cycles of surface chlorophyll in the Indian Ocean. , 2006, , .		8

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91	Nutrients in remote mode. Nature, 2005, 437, 629-631.	13.7	11
92	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
93	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
94	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
95	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
96	Mesoscale variability of sea surface pCO2: What does it respond to?. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	28
97	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
98	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
99	Mesoscale variability of phytoplankton and of new production: Impact of the large-scale nutrient distribution. Journal of Geophysical Research, 2003, 108, .	3.3	66
100	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
101	Choice of an advection scheme for biogeochemical models. Geophysical Research Letters, 2001, 28, 3725-3728.	1.5	111
102	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
103	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
104	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
105	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
106	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
107	Simulation of primary production and export fluxes in the Northwestern Mediterranean Sea. Journal of Marine Research, 1998, 56, 197-238.	0.3	91