Daniele Iudicone

List of Publications by Year
in descending order

79 papers	13,004 citations	101384 36 h-index	64668 79 g-index
87 all docs	87 docs citations	87 times ranked	13389 citing authors

#	Article	IF	Citations
1	Structure and function of the global ocean microbiome. Science, 2015, 348, 1261359.	6.0	2,137
2	Mixed layer depth over the global ocean: An examination of profile data and a profile-based climatology. Journal of Geophysical Research, 2004, 109, .	3.3	2,088
3	Eukaryotic plankton diversity in the sunlit ocean. Science, 2015, 348, 1261605.	6.0	1,551
4	Plankton networks driving carbon export in the oligotrophic ocean. Nature, 2016, 532, 465-470.	13.7	670
5	Patterns and ecological drivers of ocean viral communities. Science, 2015, 348, 1261498.	6.0	617
6	Insights into global diatom distribution and diversity in the worldâ€™s ocean. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1516-25.	3.3	561
7	Marine DNA Viral Macro- and Microdiversity from Pole to Pole. Cell, 2019, 177, 1109-1123.e14.	13.5	541
8	Influence of diatom diversity on the ocean biological carbon pump. Nature Geoscience, 2018, 11, 27-37.	5.4	451
9	A Holistic Approach to Marine Eco-Systems Biology. PLoS Biology, 2011, 9, e1001177.	2.6	353
10	Open science resources for the discovery and analysis of Tara Oceans data. Scientific Data, 2015, 2, 150023.	2.4	330
11	A global ocean atlas of eukaryotic genes. Nature Communications, 2018, 9, 373.	5.8	297
12	Global Trends in Marine Plankton Diversity across Kingdoms of Life. Cell, 2019, 179, 1084-1097.e21.	13.5	271
13	Gene Expression Changes and Community Turnover Differentially Shape the Global Ocean Metatranscriptome. Cell, 2019, 179, 1068-1083.e21.	13.5	268
14	Tara Oceans: towards global ocean ecosystems biology. Nature Reviews Microbiology, 2020, 18, 428-445.	13.6	227
15	Seasonal variability of the mixed layer depth in the Mediterranean Sea as derived from in situ profiles. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	170
16	Delineating ecologically significant taxonomic units from global patterns of marine picocyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E3365-74.	3.3	159
17	Environmental characteristics of Agulhas rings affect interocean plankton transport. Science, 2015, 348, 1261447.	6.0	158
18	Cryptic and abundant marine viruses at the evolutionary origins of Earthâ€™s RNA virome. Science, 2022, 376, 156-162.	6.0	124

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19	Single-cell genomics of multiple uncultured stramenopiles reveals underestimated functional diversity across oceans. Nature Communications, 2018, 9, 310.	5.8	101
20	Water-Mass Transformations in a Neutral Density Framework and the Key Role of Light Penetration. Journal of Physical Oceanography, 2008, 38, 1357-1376.	0.7	95
21	Communityâ€Level Responses to Iron Availability in Open Ocean Plankton Ecosystems. Global Biogeochemical Cycles, 2019, 33, 391-419.	1.9	76
22	The Water Mass Transformation Framework for Ocean Physics and Biogeochemistry. Annual Review of Marine Science, 2019, 11, 271-305.	5.1	71
23	Functional repertoire convergence of distantly related eukaryotic plankton lineages abundant in the sunlit ocean. Cell Genomics, 2022, 2, 100123.	3.0	70
24	Water masses as a unifying framework for understanding the Southern Ocean Carbon Cycle. Biogeosciences, 2011, 8, 1031-1052.	1.3	66
25	The effect of the Basset history force on particle clustering in homogeneous and isotropic turbulence. Physics of Fluids, 2014, 26, .	1.6	65
26	Coastal Phytoplankton Do Not Rest in Winter. Estuaries and Coasts, 2010, 33, 342-361.	1.0	61
27	Compendium of 530 metagenome-assembled bacterial and archaeal genomes from the polar Arctic Ocean. Nature Microbiology, 2021, 6, 1561-1574.	5.9	57
28	The Role of Southern Ocean Surface Forcings and Mixing in the Global Conveyor. Journal of Physical Oceanography, 2008, 38, 1377-1400.	0.7	54
29	Survey of the green picoalga Bathycoccus genomes in the global ocean. Scientific Reports, 2016, 6, 37900.	1.6	54
30	Environmental vulnerability of the global ocean epipelagic plankton community interactome. Science Advances, 2021, 7, .	4.7	54
31	The Global Conveyor Belt from a Southern Ocean Perspective. Journal of Physical Oceanography, 2008, 38, 1401-1425.	0.7	52
32	Unexpected winter phytoplankton blooms in the North Atlantic subpolar gyre. Nature Geoscience, 2017, 10, 836-839.	5.4	52
33	The diatom molecular toolkit to handle nitrogen uptake. Marine Genomics, 2015, 24, 95-108.	0.4	48
34	Modelling retention and dispersion mechanisms of bluefin tuna eggs and larvae in the northwest Mediterranean Sea. Progress in Oceanography, 2010, 86, 45-58.	1.5	46
35	The formation of the oceanâ€™s anthropogenic carbon reservoir. Scientific Reports, 2016, 6, 35473.	1.6	46
36	Southern Ocean Mixedâ€Layer Seasonal and Interannual Variations From Combined Satellite and In Situ Data. Journal of Geophysical Research: Oceans, 2017, 122, 10042-10060.	1.0	41

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37	Global drivers of eukaryotic plankton biogeography in the sunlit ocean. Science, 2021, 374, 594-599.	6.0	41
38	Filament formation and evolution in buoyant coastal waters: Observation and modelling. Progress in Oceanography, 2012, 106, 118-137.	1.5	37
39	Environmental processes driving anchovy and sardine distribution in a highly variable environment: the role of the coastal structure and riverine input. Fisheries Oceanography, 2016, 25, 471-490.	0.9	35
40	Reverse transcriptase genes are highly abundant and transcriptionally active in marine plankton assemblages. ISME Journal, 2016, 10, 1134-1146.	4.4	35
41	Water Mass Analysis of Effect of Climate Change on Airâ€"Sea CO₂ Fluxes: The Southern Ocean. Journal of Climate, 2012, 25, 3894-3908.	1.2	34
42	Net primary production in the Gulf Stream sustained by quasiâ€geostrophic vertical exchanges. Geophysical Research Letters, 2015, 42, 441-449.	1.5	33
43	An Exchange Window for the Injection of Antarctic Intermediate Water into the South Pacific. Journal of Physical Oceanography, 2007, 37, 31-49.	0.7	32
44	Observational Needs Supporting Marine Ecosystems Modeling and Forecasting: From the Global Ocean to Regional and Coastal Systems. Frontiers in Marine Science, 2019, 6, .	1.2	32
45	The dynamics of sexual phase in the marine diatom <scp>P</scp>seudoâ€nitzschia multistriata (<scp>B</scp>acillariophyceae). Journal of Phycology, 2014, 50, 817-828.	1.0	31
46	Sensitivity of numerical tracer trajectories to uncertainties in OGCM velocity fields. Ocean Modelling, 2002, 4, 313-325.	1.0	30
47	Modelling plankton ecosystems in the meta-omics era. Are we ready?. Marine Genomics, 2017, 32, 1-17.	0.4	29
48	Marine diatoms change their gene expression profile when exposed to microscale turbulence under nutrient replete conditions. Scientific Reports, 2017, 7, 3826.	1.6	27
49	Modelling the complexity of plankton communities exploiting omics potential: From present challenges to an integrative pipeline. Current Opinion in Systems Biology, 2019, 13, 68-74.	1.3	27
50	Large scale patterns of marine diatom richness: Drivers and trends in a changing ocean. Global Ecology and Biogeography, 2020, 29, 1915-1928.	2.7	26
51	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
52	Nutrient consumption and chain tuning in diatoms exposed to storm-like turbulence. Scientific Reports, 2017, 7, 1828.	1.6	25
53	Macroscale patterns of oceanic zooplankton composition and size structure. Scientific Reports, 2021, 11, 15714.	1.6	24
54	Numerical analysis of cumulative impact of phytoplankton photoresponses to light variation on carbon assimilation. Journal of Theoretical Biology, 2009, 261, 361-371.	0.8	23

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55	Dynamics of sea-surface temperature anomalies in the Southern Ocean diagnosed from a 2D mixed-layer model. Climate Dynamics, 2010, 34, 153-184.	1.7	23
56	Large Reemergence of Anthropogenic Carbon into the Oceanâ€™s Surface Mixed Layer Sustained by the Oceanâ€™s Overturning Circulation. Journal of Climate, 2017, 30, 8615-8631.	1.2	23
57	Meta-Omics Reveals Genetic Flexibility of Diatom Nitrogen Transporters in Response to Environmental Changes. Molecular Biology and Evolution, 2019, 36, 2522-2535.	3.5	23
58	A Conceptual Framework for Developing the Next Generation of Marine OBservatories (MOBs) for Science and Society. Frontiers in Marine Science, 2018, 5, .	1.2	22
59	Restructuring of plankton genomic biogeography in the surface ocean under climate change. Nature Climate Change, 2022, 12, 393-401.	8.1	21
60	Response of the deep chlorophyll maximum to fluctuations in vertical mixing intensity. Progress in Oceanography, 2013, 109, 33-46.	1.5	19
61	Threeâ€Dimensional Ageostrophic Motion and Water Mass Subduction in the Southern Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 1533-1562.	1.0	18
62	Insights on the drivers of genetic divergence in the European anchovy. Scientific Reports, 2017, 7, 4180.	1.6	17
63	The Effect of Air-Sea Flux Products, Shortwave Radiation Depth Penetration, and Albedo on the Upper Ocean Overturning Circulation. Geophysical Research Letters, 2018, 45, 9087-9097.	1.5	17
64	Impact of penetrative solar radiation on the diagnosis of water mass transformation in the Mediterranean Sea. Journal of Geophysical Research, 2008, 113, .	3.3	12
65	Helium isotopic constraints on simulated ocean circulations: implications for abyssal theories. Environmental Fluid Mechanics, 2010, 10, 257-273.	0.7	11
66	Discovering millions of plankton genomic markers from the Atlantic Ocean and the Mediterranean Sea. Molecular Ecology Resources, 2019, 19, 526-535.	2.2	11
67	Regulation of chain length in two diatoms as a growth-fragmentation process. Physical Review E, 2016, 94, 022418.	0.8	10
68	Mechanistic Drivers of Reemergence of Anthropogenic Carbon in the Equatorial Pacific. Geophysical Research Letters, 2017, 44, 9433-9439.	1.5	10
69	Trade-off between sex and growth in diatoms: Molecular mechanisms and demographic implications. Science Advances, 2022, 8, eabj9466.	4.7	10
70	A finite volume dynamic large-eddy simulation method for buoyancy driven turbulent geophysical flows. Ocean Modelling, 2007, 17, 199-218.	1.0	9
71	High resolution SNPs selection in Engraulis encrasicolus through Taqman OpenArray. Fisheries Research, 2016, 177, 31-38.	0.9	9
72	Ocean Acidification From Below in the Tropical Pacific. Global Biogeochemical Cycles, 2020, 34, e2019GB006368.	1.9	9

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73	Linking mixing processes and climate variability to the heat content distribution of the Eastern Mediterranean abyss. Scientific Reports, 2018, 8, 11317.	1.6	8
74	Into the bloom: Molecular response of pelagic tunicates to fluctuating food availability. Molecular Ecology, 2020, 29, 292-307.	2.0	6
75	TURBOGEN: Computer-controlled vertically oscillating grid system for small-scale turbulence studies on plankton. Review of Scientific Instruments, 2016, 87, 035119.	0.6	5
76	On the time scales and structure of LagrangianÂintermittency in homogeneous isotropic turbulence. Journal of Fluid Mechanics, 2019, 867, 438-481.	1.4	4
77	Marine DNA Viral Macro-and Micro-Diversity From Pole to Pole. SSRN Electronic Journal, 2019, , .	0.4	4
78	Potential vorticity estimates of absolute velocities on the Ross Sea shelf. Deep-Sea Research Part I: Oceanographic Research Papers, 2009, 56, 314-329.	0.6	3
79	Some may like it hot. Nature Geoscience, 2020, 13, 98-99.	5.4	3