

Jean-Claude Dutay

List of Publications by Year in descending order

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46
papers

3,496
citations

185998

28
h-index

223531

46
g-index

77
all docs

77
docs citations

77
times ranked

4260
citing authors

#	ARTICLE	IF	CITATIONS
1	Marine ecosystemsâ€™ responses to climatic and anthropogenic forcings in the Mediterranean. Progress in Oceanography, 2011, 91, 97-166.	1.5	385
2	Hydrothermal contribution to the oceanic dissolved iron inventory. Nature Geoscience, 2010, 3, 252-256.	5.4	353
3	Impact of circulation on export production, dissolved organic matter, and dissolved oxygen in the ocean: Results from Phase II of the Ocean Carbonâ€œcycle Model Intercomparison Project (OCMIPâ€œ2). Global Biogeochemical Cycles, 2007, 21, .	1.9	211
4	Evaluating global ocean carbon models: The importance of realistic physics. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	210
5	Isotopic Nd compositions and concentrations of the lithogenic inputs into the ocean: A compilation, with an emphasis on the margins. Chemical Geology, 2007, 239, 156-164.	1.4	208
6	Evaluation of ocean model ventilation with CFC-11: comparison of 13 global ocean models. Ocean Modelling, 2002, 4, 89-120.	1.0	192
7	Reconstructing the Nd oceanic cycle using a coupled dynamical â€œ biogeochemical model. Biogeosciences, 2009, 6, 2829-2846.	1.3	185
8	Evaluation of ocean carbon cycle models with data-based metrics. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	168
9	Biogeochemical protocols and diagnostics for the CMIP6 Ocean Model Intercomparison Project (OMIP). Geoscientific Model Development, 2017, 10, 2169-2199.	1.3	137
10	Modelling Nd-isotopes with a coarse resolution ocean circulation model: Sensitivities to model parameters and source/sink distributions. Geochimica Et Cosmochimica Acta, 2011, 75, 5927-5950.	1.6	136
11	Modeling the neodymium isotopic composition with a global ocean circulation model. Chemical Geology, 2007, 239, 165-177.	1.4	113
12	Quantifying the roles of ocean circulation and biogeochemistry in governing ocean carbon-13 and atmospheric carbon dioxide at the last glacial maximum. Climate of the Past, 2009, 5, 695-706.	1.3	91
13	Consequences of shoaling of the Central American Seaway determined from modeling Nd isotopes. Paleoceanography, 2014, 29, 176-189.	3.0	83
14	Simulated anthropogenic CO<sub>2</sub> storage and acidification of the Mediterranean Sea. Biogeosciences, 2015, 12, 781-802.	1.3	77
15	Manganese in the west Atlantic Ocean in the context of the first global ocean circulation model of manganese. Biogeosciences, 2017, 14, 1123-1152.	1.3	75
16	Hydrothermal impacts on trace element and isotope ocean biogeochemistry. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20160035.	1.6	59
17	Model of the Regional Coupled Earth system (MORCE): Application to process and climate studies in vulnerable regions. Environmental Modelling and Software, 2012, 35, 1-18.	1.9	57
18	²³⁰ Th Normalization: New Insights on an Essential Tool for Quantifying Sedimentary Fluxes in the Modern and Quaternary Ocean. Paleoceanography and Paleoclimatology, 2020, 35, e2019PA003820.	1.3	56

#	ARTICLE	IF	CITATIONS
19	Modeling the biogeochemical impact of atmospheric phosphate deposition from desert dust and combustion sources to the Mediterranean Sea. <i>Biogeosciences</i> , 2018, 15, 2499-2524.	1.3	49
20	Aluminium in an ocean general circulation model compared with the West Atlantic Geotraces cruises. <i>Journal of Marine Systems</i> , 2013, 126, 3-23.	0.9	48
21	Evaluation of OCMIP-2 ocean models' deep circulation with mantle helium-3. <i>Journal of Marine Systems</i> , 2004, 48, 15-36.	0.9	46
22	Variable reactivity of particulate organic matter in a global ocean biogeochemical model. <i>Biogeosciences</i> , 2017, 14, 2321-2341.	1.3	46
23	Modeling the impacts of atmospheric deposition of nitrogen and desert dust-derived phosphorus on nutrients and biological budgets of the Mediterranean Sea. <i>Progress in Oceanography</i> , 2018, 163, 21-39.	1.5	46
24	Global Ocean Sediment Composition and Burial Flux in the Deep Sea. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006769.	1.9	46
25	New insights into the organic carbon export in the Mediterranean Sea from 3-D modeling. <i>Biogeosciences</i> , 2015, 12, 7025-7046.	1.3	42
26	Influence of particle size and type on ²³¹ Pa and ²³⁰ Th simulation with a global coupled biogeochemical-ocean general circulation model: A first approach. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	40
27	Biogeochemical response of the Mediterranean Sea to the transient SRES-A2 climate change scenario. <i>Biogeosciences</i> , 2019, 16, 135-165.	1.3	36
28	Effects of mesoscale eddies on global ocean distributions of CFC-11, CO ₂ , and ¹⁴ C. <i>Ocean Science</i> , 2007, 3, 461-482.	1.3	35
29	A modeling sensitivity study of the influence of the Atlantic meridional overturning circulation on neodymium isotopic composition at the Last Glacial Maximum. <i>Climate of the Past</i> , 2008, 4, 191-203.	1.3	30
30	On the effects of circulation, sediment resuspension and biological incorporation by diatoms in an ocean model of aluminium*. <i>Biogeosciences</i> , 2014, 11, 3757-3779.	1.3	29
31	High-resolution neodymium characterization along the Mediterranean margins and modelling of ¹⁴³ Nd distribution in the Mediterranean basins. <i>Biogeosciences</i> , 2016, 13, 5259-5276.	1.3	23
32	A global scavenging and circulation ocean model of thorium-230 and protactinium-231 with improved particle dynamics (NEMO-ProThorPÅ0.1). <i>Geoscientific Model Development</i> , 2018, 11, 3537-3556.	1.3	22
33	Simulating the Occurrence of the Last Sapropel Event (S1): Mediterranean Basin Ocean Dynamics Simulations Using Nd Isotopic Composition Modeling. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 237-251.	1.3	19
34	Changes in rivers inputs during the last decades significantly impacted the biogeochemistry of the eastern Mediterranean basin: A modelling study. <i>Progress in Oceanography</i> , 2020, 181, 102242.	1.5	14
35	Modelling of the anthropogenic tritium transient and its decay product helium-3 in the Mediterranean Sea using a high-resolution regional model. <i>Ocean Science</i> , 2015, 11, 323-342.	1.3	13
36	Modelling the role of marine particle on large scale ²³¹ Pa, ²³⁰ Th, Iron and Aluminium distributions. <i>Progress in Oceanography</i> , 2015, 133, 66-72.	1.5	12

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37	Helium isotopic constraints on simulated ocean circulations: implications for abyssal theories. <i>Environmental Fluid Mechanics</i> , 2010, 10, 257-273.	0.7	11
38	Modeling the Nd isotopic composition in the North Atlantic basin using an eddy-permitting model. <i>Ocean Science</i> , 2010, 6, 789-797.	1.3	11
39	High-resolution regional modelling of natural and anthropogenic radiocarbon in the Mediterranean Sea. <i>Biogeosciences</i> , 2017, 14, 1197-1213.	1.3	6
40	Simulation of the mantle and crustal helium isotope signature in the Mediterranean Sea using a high-resolution regional circulation model. <i>Ocean Science</i> , 2015, 11, 965-978.	1.3	5
41	Modelling the impact of biogenic particle flux intensity and composition on sedimentary Pa/Th. <i>Quaternary Science Reviews</i> , 2020, 240, 106394.	1.4	5
42	Carbon isotopes and Pa ²³¹ /Th response to forced circulation changes: a model perspective. <i>Climate of the Past</i> , 2020, 16, 867-883.	1.3	5
43	Evaluating the impact of Mediterranean overflow on the large-scale Atlantic Ocean circulation using neodymium isotopic composition. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2021, 570, 110359.	1.0	5
44	Freshwater influx to the Eastern Mediterranean Sea from the melting of the Fennoscandian ice sheet during the last deglaciation. <i>Scientific Reports</i> , 2022, 12, 8466.	1.6	3
45	Development of a sequential tool, LMDZ-NEMO-med-V1, to conduct global-to-regional past climate simulation for the Mediterranean basin: an Early Holocene case study. <i>Geoscientific Model Development</i> , 2020, 13, 2337-2354.	1.3	2
46	Hosing experiment using LMDZ-NEMOMED8A: study of the last sapropel event in the Mediterranean Sea. <i>Quaternaire</i> , 2017, , 195-200.	0.1	1