

Xavier Durrieu De Madron

List of Publications by Year in descending order

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103
papers

6,801
citations

44042

48
h-index

64755

79
g-index

111
all docs

111
docs citations

111
times ranked

5098
citing authors

#	ARTICLE	IF	CITATIONS
1	Flushing submarine canyons. <i>Nature</i> , 2006, 444, 354-357.	13.7	701
2	Marine ecosystemsâ€™ responses to climatic and anthropogenic forcings in the Mediterranean. <i>Progress in Oceanography</i> , 2011, 91, 97-166.	1.5	385
3	Suspended sediment fluxes and transport processes in the Gulf of Lions submarine canyons. The role of storms and dense water cascading. <i>Marine Geology</i> , 2006, 234, 43-61.	0.9	237
4	A review of the role of submarine canyons in deep-ocean exchange with the shelf. <i>Ocean Science</i> , 2009, 5, 607-620.	1.3	190
5	Cascades in Mediterranean Submarine Grand Canyons. <i>Oceanography</i> , 2009, 22, 26-43.	0.5	167
6	Observation and modeling of the winter coastal oceanic circulation in the Gulf of Lion under wind conditions influenced by the continental orography (FETCH experiment). <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	158
7	Particulate matter and organic carbon budgets for the Gulf of Lions (NW Mediterranean). <i>Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie</i> , 2000, 23, 717-730.	0.7	157
8	Nanoplanktonic diatoms are globally overlooked but play a role in spring blooms and carbon export. <i>Nature Communications</i> , 2018, 9, 953.	5.8	150
9	Spatial and temporal variability of downward particle fluxes on a continental slope: Lessons from an 8-yr experiment in the Gulf of Lions (NW Mediterranean). <i>Marine Geology</i> , 2006, 234, 63-92.	0.9	139
10	Suspended sediment transport in the Gulf of Lions (NW Mediterranean): Impact of extreme storms and floods. <i>Continental Shelf Research</i> , 2008, 28, 2048-2070.	0.9	137
11	Interaction of dense shelf water cascading and openâ€‘sea convection in the northwestern Mediterranean during winter 2012. <i>Geophysical Research Letters</i> , 2013, 40, 1379-1385.	1.5	136
12	Trawling-induced resuspension and dispersal of muddy sediments and dissolved elements in the Gulf of Lion (NW Mediterranean). <i>Continental Shelf Research</i> , 2005, 25, 2387-2409.	0.9	121
13	Flow variability in the Gulf of Lions during the MATER HFF experiment (Marchâ€‘May 1997). <i>Journal of Marine Systems</i> , 2002, 33-34, 197-214.	0.9	118
14	Sediment dynamics during wet and dry storm events on the TÃªt inner shelf (SW Gulf of Lions). <i>Marine Geology</i> , 2006, 234, 129-142.	0.9	116
15	Organic matter in sediments of canyons and open slopes of the Portuguese, Catalan, Southern Adriatic and Cretan Sea margins. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2010, 57, 441-457.	0.6	116
16	Observations of open-ocean deep convection in the northwestern Mediterranean Sea: Seasonal and interannual variability of mixing and deep water masses for the 2007-2013 Period. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 8139-8171.	1.0	108
17	Circulation, transport and bottom boundary layers of the deep currents in the Brazil Basin. <i>Journal of Marine Research</i> , 1994, 52, 583-638.	0.3	101
18	Seasonal cycle of the mixed layer, the seasonal thermocline and the upper-ocean heat storage rate in the Mediterranean Sea derived from observations. <i>Progress in Oceanography</i> , 2015, 132, 333-352.	1.5	95

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19	Impact of natural (waves and currents) and anthropogenic (trawl) resuspension on the export of particulate matter to the open ocean. <i>Continental Shelf Research</i> , 2008, 28, 2071-2091.	0.9	90
20	Comments on "Cascades of dense water around the world ocean". <i>Progress in Oceanography</i> , 2005, 64, 83-90.	1.5	88
21	Thick bottom nepheloid layers in the western Mediterranean generated by deep dense shelf water cascading. <i>Progress in Oceanography</i> , 2013, 111, 1-23.	1.5	88
22	Hydrographic structure and nepheloid spatial distribution in the Gulf of Lions continental margin. <i>Continental Shelf Research</i> , 1990, 10, 915-929.	0.9	87
23	Hydrography and nepheloid structures in the Grand-Rhône canyon. <i>Continental Shelf Research</i> , 1994, 14, 457-477.	0.9	87
24	Storm-driven shelf-to-canyon suspended sediment transport at the southwestern Gulf of Lions. <i>Continental Shelf Research</i> , 2008, 28, 1947-1956.	0.9	86
25	Slope transport of suspended particulate matter on the Aquitanian margin of the Bay of Biscay. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 1999, 46, 2003-2027.	0.6	85
26	Dense shelf water cascading in the northwestern Mediterranean during the cold winter 2005: Quantification of the export through the Gulf of Lion and the Catalan margin. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	85
27	Origin and variability of downward biogeochemical fluxes on the Rhone continental margin (NW) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 3	0.6	84
28	Spatial and temporal patterns of downward particle fluxes on the continental slope of the Bay of Biscay (northeastern Atlantic). <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 1999, 46, 2101-2146.	0.6	82
29	Characterizing, modelling and understanding the climate variability of the deep water formation in the North-Western Mediterranean Sea. <i>Climate Dynamics</i> , 2018, 51, 1179-1210.	1.7	79
30	Impact of storms and dense water cascading on shelf-slope exchanges in the Gulf of Lion (NW) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	3.3	78
31	Field calibration of optical sensors for measuring suspended sediment concentration in the western Mediterranean. <i>Scientia Marina</i> , 2000, 64, 427-435.	0.3	75
32	Fine-grained sediment dynamics during a strong storm event in the inner-shelf of the Gulf of Lion (NW) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	0.9	73
33	Settling velocity, effective density, and mass composition of suspended sediment in a coastal bottom boundary layer, Gulf of Lions, France. <i>Continental Shelf Research</i> , 2007, 27, 1408-1421.	0.9	71
34	Multiscale Observations of Deep Convection in the Northwestern Mediterranean Sea During Winter 2012-2013 Using Multiple Platforms. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 1745-1776.	1.0	71
35	Role of the climatological and current variability on shelf-slope exchanges of particulate matter: Evidence from the Rhône continental margin (NW Mediterranean). <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1999, 46, 1513-1538.	0.6	69
36	Impact of dense shelf water cascading on the transfer of organic matter to the deep western Mediterranean basin. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	68

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37	Sediment transport to the deep canyons and open-slope of the western Gulf of Lions during the 2006 intense cascading and open-sea convection period. <i>Progress in Oceanography</i> , 2012, 106, 1-15.	1.5	67
38	Scales and dynamics of submesoscale coherent vortices formed by deep convection in the northwestern Mediterranean Sea. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 7716-7742.	1.0	65
39	Deep sediment resuspension and thick nepheloid layer generation by open-ocean convection. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 2291-2318.	1.0	63
40	Nutrients and carbon budgets for the Gulf of Lion during the Moogli cruises. <i>Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie</i> , 2003, 26, 421-433.	0.7	60
41	The effects of a strong winter storm on physical and biological variables at a shelf site in the Mediterranean. <i>Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie</i> , 2003, 26, 407-419.	0.7	60
42	Deep-Sea Bioluminescence Blooms after Dense Water Formation at the Ocean Surface. <i>PLoS ONE</i> , 2013, 8, e67523.	1.1	58
43	Sediment dispersal from a typical Mediterranean flood: The Têt River, Gulf of Lions. <i>Continental Shelf Research</i> , 2008, 28, 1895-1910.	0.9	57
44	Seasonal variability of the advective transport of particulate matter and organic carbon in the Gulf of Lion (NW Mediterranean). <i>Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie</i> , 2001, 24, 295-312.	0.7	56
45	Across margin export of organic matter by cascading events traced by stable isotopes, northwestern Mediterranean Sea. <i>Limnology and Oceanography</i> , 2009, 54, 1488-1500.	1.6	56
46	Impact of open-ocean convection on particle fluxes and sediment dynamics in the deep margin of the Gulf of Lions. <i>Biogeosciences</i> , 2013, 10, 1097-1116.	1.3	56
47	Sediment accumulation in the western Gulf of Lions, France: The role of Cap de Creus Canyon in linking shelf and slope sediment dispersal systems. <i>Continental Shelf Research</i> , 2008, 28, 2031-2047.	0.9	55
48	Flux and composition of settling particles across the continental margin of the Gulf of Lion: the role of dense shelf water cascading. <i>Biogeosciences</i> , 2010, 7, 217-231.	1.3	55
49	Particle assemblage characterization in the Rhone River ROFI. <i>Journal of Marine Systems</i> , 2016, 157, 39-51.	0.9	55
50	Abrupt warming and salinification of intermediate waters interplays with decline of deep convection in the Northwestern Mediterranean Sea. <i>Scientific Reports</i> , 2020, 10, 20923.	1.6	55
51	Particle size distribution and estimated carbon flux across the Arabian Sea oxygen minimum zone. <i>Biogeosciences</i> , 2014, 11, 4541-4557.	1.3	54
52	Impact of open-ocean convection on nutrients, phytoplankton biomass and activity. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2014, 94, 62-71.	0.6	46
53	High resolution modeling of dense water formation in the northwestern Mediterranean during winter 2012-2013: Processes and budget. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 5367-5392.	1.0	46
54	Comparison of horizontal and downward particle fluxes across canyons of the Gulf of Lions (NW) 1957-1970.	0.9	44

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55	Transformation of PBDE mixtures during sediment transport and resuspension in marine environments (Gulf of Lion, NW Mediterranean Sea). <i>Environmental Pollution</i> , 2012, 168, 87-95.	3.7	43
56	Major consequences of an intense dense shelf water cascading event on deep-sea benthic trophic conditions and meiofaunal biodiversity. <i>Biogeosciences</i> , 2013, 10, 2659-2670.	1.3	42
57	A MSFD complementary approach for the assessment of pressures, knowledge and data gaps in Southern European Seas: The PERSEUS experience. <i>Marine Pollution Bulletin</i> , 2015, 95, 28-39.	2.3	41
58	Comparison of sediment resuspension measurements in sheared and zero-mean turbulent flows. <i>Continental Shelf Research</i> , 2001, 21, 2095-2103.	0.9	40
59	Circulation and distribution of suspended matter in the Sporades basin (northwestern Aegean sea). <i>Journal of Marine Systems</i> , 1992, 3, 237-248.	0.9	35
60	The open sea as the main source of methylmercury in the water column of the Gulf of Lions (Northwestern Mediterranean margin). <i>Geochimica Et Cosmochimica Acta</i> , 2017, 199, 222-237.	1.6	35
61	HyMeX-SOP2: The Field Campaign Dedicated to Dense Water Formation in the Northwestern Mediterranean. , 2016, 29, 196-206.		33
62	Research activities in the Gulf of Lion (NW Mediterranean) within the 1997-2001 PNEC project. <i>Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie</i> , 2003, 26, 291-298.	0.7	31
63	Carbon flux to the deep in three open sites of the Southern European Seas (SES). <i>Journal of Marine Systems</i> , 2014, 129, 224-233.	0.9	30
64	Cross-slope variations of organic carbon and bacteria in the Gulf of Lions in relation to water dynamics (northwestern Mediterranean). <i>Marine Ecology - Progress Series</i> , 1997, 161, 255-264.	0.9	30
65	Description of a contourite depositional system on the Demerara Plateau: Results from geophysical data and sediment cores. <i>Marine Geology</i> , 2016, 378, 56-73.	0.9	28
66	Impact of winter dense water formation on shelf sediment erosion (evidence from the Gulf of Lions.) <i>Tj ETQqO O O rgBT /Overlock 10 Tf 5</i>	0.9	27
67	Distribution of organochlorine compounds in superficial sediments from the Gulf of Lion, northwestern Mediterranean Sea. <i>Progress in Oceanography</i> , 2013, 118, 235-248.	1.5	27
68	Geometry, fractal dimension and settling velocity of flocs during flooding conditions in the Rhône ROFI. <i>Estuarine, Coastal and Shelf Science</i> , 2019, 219, 1-13.	0.9	27
69	The Impact of Humans on Strata Formation Along Mediterranean Margins. <i>Oceanography</i> , 2004, 17, 70-79.	0.5	26
70	Glider monitoring of shelf suspended particle dynamics and transport during storm and flooding conditions. <i>Continental Shelf Research</i> , 2015, 109, 135-149.	0.9	26
71	Impact of an intense water column mixing (0-1500 m) on prokaryotic diversity and activities during an open-ocean convection event in the NW Mediterranean Sea. <i>Environmental Microbiology</i> , 2016, 18, 4378-4390.	1.8	26
72	General Hydrography of the Beagle Channel, a Subantarctic Interoceanic Passage at the Southern Tip of South America. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	26

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73	Role of deep convection on anthropogenic CO ₂ sequestration in the Gulf of Lions (northwestern) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50,462 Td (N	0.6	24
74	Particle Dynamics in Ushuaia Bay (Tierra del Fuego)-Potential Effect on Dissolved Oxygen Depletion. Water (Switzerland), 2020, 12, 324.	1.2	23
75	Effects of storm events on the shelf-to-basin sediment transport in the southwestern end of the Gulf of Lions (Northwestern Mediterranean). Natural Hazards and Earth System Sciences, 2011, 11, 843-850.	1.5	21
76	Impact of oceanic floods on particulate metal inputs to coastal and deep-sea environments: A case study in the NW Mediterranean Sea. Continental Shelf Research, 2012, 45, 15-26.	0.9	20
77	Sediment transport along the Cap de Creus Canyon flank during a mild, wet winter. Biogeosciences, 2013, 10, 3221-3239.	1.3	20
78	Openâ€œcean convection process: A driver of the winter nutrient supply and the spring phytoplankton distribution in the <scp>N</scp>orthwestern <scp>M</scp>editerranean <scp>S</scp>ea. Journal of Geophysical Research: Oceans, 2017, 122, 4587-4601.	1.0	19
79	Structure of the Demerara passive-transform margin and associated sedimentary processes. Initial results from the IGUANES cruise. Geological Society Special Publication, 2016, 431, 179-197.	0.8	18
80	Last millennia sedimentary record on a micro-tidal, low-accumulation prodelta (TÃt NW) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50,462 Td (N	0.9	17
81	Storm-induced transfer of particulate trace metals to the deep-sea in the Gulf of Lion (NW) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50,462 Td (N	1.8	17
82	Particle sources and downward fluxes in the eastern Fram strait under the influence of the west Spitsbergen current. Deep-Sea Research Part I: Oceanographic Research Papers, 2015, 103, 49-63.	0.6	17
83	Glider and satellite monitoring of the variability of the suspended particle distribution and size in the RhÃne ROFI. Progress in Oceanography, 2018, 163, 123-135.	1.5	17
84	Ecosystem effects of dense water formation on deep Mediterranean Sea ecosystems: an overview. Advances in Oceanography and Limnology, 2010, 1, 67-83.	0.2	16
85	Sources and exchanges of mercury in the waters of the Northwestern Mediterranean margin. Progress in Oceanography, 2018, 163, 172-183.	1.5	16
86	Ecosystem effects of dense water formation on deep Mediterranean Sea ecosystems: an overview. Advances in Oceanography and Limnology, 2010, 1, 67.	0.2	16
87	Deflection of natural oil droplets through the water column in deep-water environments: The case of the Lower Congo Basin. Deep-Sea Research Part I: Oceanographic Research Papers, 2018, 136, 44-61.	0.6	11
88	Long term monitoring of cold-water coral growth shows response to episodic meteorological events in the NW Mediterranean. Deep-Sea Research Part I: Oceanographic Research Papers, 2020, 160, 103255.	0.6	11
89	Transfer of particulate matter from the northwestern Mediterranean continental margin: Variability and controlling factors. Journal of Marine Research, 2006, 64, 195-220.	0.3	10
90	Reexposure and advection of ¹⁴Câ€depleted organic carbon from old deposits at the upper continental slope. Global Biogeochemical Cycles, 2010, 24, .	1.9	9

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91	Seasonal and Interannual Variability of the CO ₂ System in the Eastern Mediterranean Sea: A Case Study in the North Western Levantine Basin. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	9
92	Reprint of: Carbon flux to the deep in three open sites of the Southern European Seas (SES). <i>Journal of Marine Systems</i> , 2014, 135, 170-179.	0.9	8
93	A synthesis of the sedimentary evolution of the Demerara Plateau (Central Atlantic Ocean) from the late Albian to the Holocene. <i>Marine and Petroleum Geology</i> , 2020, 114, 104195.	1.5	8
94	Impact of storms on residence times and export of coastal waters during a mild autumn/winter period in the Gulf of Lion. <i>Continental Shelf Research</i> , 2020, 207, 104192.	0.9	8
95	Preface to the Special Section: Dense Water Formations in the Northwestern Mediterranean: From the Physical Forcings to the Biogeochemical Consequences. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 6983-6995.	1.0	6
96	Glider-Based Active Acoustic Monitoring of Currents and Turbidity in the Coastal Zone. <i>Remote Sensing</i> , 2020, 12, 2875.	1.8	4
97	Sources of the Levantine Intermediate Water in Winter 2019. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	1.0	4
98	Development of a Data Visualization and Analysis Tool to Study the Particle Dynamics in the Coastal Zone. <i>Marine Pollution Bulletin</i> , 2001, 43, 262-269.	2.3	3
99	Sediment dynamics on the outer-shelf of the Gulf of Lions during a storm: An approach based on acoustic glider and numerical modeling. <i>Continental Shelf Research</i> , 2022, 240, 104721.	0.9	3
100	Benthic foraminiferal assemblages in the Cap de Creus canyon and adjacent open slope: Potential influence of dense shelf water cascading and open-ocean convection. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2018, 136, 31-43.	0.6	2
101	Water column poly-aromatic hydrocarbon anomalies measured with submersible gliders in the Angolan natural oil seepage province. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2021, 175, 103588.	0.6	1
102	Approaches to evaluate spatial and temporal variability of deep marine sediment characteristics under the impact of dense water formation events. <i>Mediterranean Marine Science</i> , 0, , .	0.6	1
103	Preface of special issue of MERMEX project: Recent advances in the oceanography of the Mediterranean Sea. <i>Progress in Oceanography</i> , 2018, 163, 1-6.	1.5	0