Larry Mayer

List of Publications by Year in descending order

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57631 38300 9,657 144 44 95 citations h-index g-index papers 167 167 167 8967 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Elevated Circulating Levels of Tumor Necrosis Factor in Severe Chronic Heart Failure. New England Journal of Medicine, 1990, 323, 236-241.	13.9	2,370
2	The International Bathymetric Chart of the Arctic Ocean (IBCAO) Version 3.0. Geophysical Research Letters, 2012, 39, .	1.5	888
3	BedMachine v3: Complete Bed Topography and Ocean Bathymetry Mapping of Greenland From Multibeam Echo Sounding Combined With Mass Conservation. Geophysical Research Letters, 2017, 44, 11051-11061.	1.5	536
4	An improved bathymetric portrayal of the Arctic Ocean: Implications for ocean modeling and geological, geophysical and oceanographic analyses. Geophysical Research Letters, 2008, 35, .	1.5	410
5	The Nippon Foundationâ€"GEBCO Seabed 2030 Project: The Quest to See the World's Oceans Completely Mapped by 2030. Geosciences (Switzerland), 2018, 8, 63.	1.0	252
6	The early Miocene onset of a ventilated circulation regime in the Arctic Ocean. Nature, 2007, 447, 986-990.	13.7	208
7	Shallow-water imaging multibeam sonars: A new tool for investigating seafloor processes in the coastal zone and on the continental shelf. Marine Geophysical Researches, 1996, 18, 607-629.	0.5	195
8	Arctic Ocean glacial history. Quaternary Science Reviews, 2014, 92, 40-67.	1.4	184
9	Remote estimation of surficial seafloor properties through the application Angular Range Analysis to multibeam sonar data. Marine Geophysical Researches, 2007, 28, 119-126.	0.5	162
10	Seabed characterization on the New Jersey middle and outer shelf: correlatability and spatial variability of seafloor sediment properties. Marine Geology, 2004, 209, 147-172.	0.9	154
11	The morphology and tectonics of the Mark area from Sea Beam and Sea MARC I observations (Mid-Atlantic Ridge 23° N). Marine Geophysical Researches, 1988, 10, 59-90.	0.5	142
12	Seafloor Mapping – The Challenge of a Truly Global Ocean Bathymetry. Frontiers in Marine Science, 2019, 6, .	1.2	140
13	Evidence for an ice shelf covering the central Arctic Ocean during the penultimate glaciation. Nature Communications, 2016, 7, 10365.	5.8	133
14	Angular range analysis of acoustic themes from Stanton Banks Ireland: A link between visual interpretation and multibeam echosounder angular signatures. Applied Acoustics, 2009, 70, 1298-1304.	1.7	131
15	The International Bathymetric Chart of the Arctic Ocean Version 4.0. Scientific Data, 2020, 7, 176.	2.4	129
16	Large-scale current-induced erosion and deposition in the path of the 1929 Grand Banks turbidity current. Sedimentology, 1990, 37, 613-629.	1.6	110
17	Protocols for calibrating multibeam sonar. Journal of the Acoustical Society of America, 2005, 117, 2013-2027.	0.5	105
18	Chirp subbottom profiler for quantitative sediment analysis. Geophysics, 1989, 54, 445-450.	1.4	104

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19	Marine sediment classification using the chirp sonar. Journal of the Acoustical Society of America, 1992, 91, 107-115.	0.5	104
20	An Arctic Ocean ice shelf during MIS 6 constrained by new geophysical and geological data. Quaternary Science Reviews, 2010, 29, 3505-3517.	1.4	104
21	High-resolution swath sonar investigation of sand ridge, dune and ribbon morphology in the offshore environment of the New Jersey margin. Marine Geology, 1999, 161, 307-337.	0.9	102
22	Excepftonally Strong Near-Bottom Flows on the Continental Rise of Nova Scotia. Science, 1981, 213, 887-888.	6.0	100
23	Frontiers in Seafloor Mapping and Visualization. Marine Geophysical Researches, 2006, 27, 7-17.	0.5	98
24	Lakes of the Huron basin: their record of runoff from the laurentide ice sheet. Quaternary Science Reviews, 1994, 13, 891-922.	1.4	93
25	Paleoseismology of the Palu–Lake Hazar segment of the East Anatolian Fault Zone, Turkey. Tectonophysics, 2003, 374, 163-197.	0.9	92
26	Detailed investigation of sorted bedforms, or "rippled scour depressions,―within the Martha's Vineyard Coastal Observatory, Massachusetts. Continental Shelf Research, 2005, 25, 461-484.	0.9	92
27	Post-glacial flooding of the Bering Land Bridge dated to 11†cal†ka†BP based on new geophysical and sediment records. Climate of the Past, 2017, 13, 991-1005.	1.3	85
28	Dense biological communities at 3850 m on the Laurentian Fan and their relationship to the deposits of the 1929 Grand Banks earthquake. Deep-sea Research Part A, Oceanographic Research Papers, 1988, 35, 1235-1246.	1.6	78
29	Geophysical insights into the Transition fault debate: Propagating strike slip in response to stalling Yakutat block subduction in the Gulf of Alaska. Geology, 2007, 35, 763.	2.0	78
30	Acoustic estimates of methane gas flux from the seabed in a 6000 km (sup) 2 (sup) region in the Northern Gulf of Mexico. Geochemistry, Geophysics, Geosystems, 2014, 15, 1911-1925.	1.0	78
31	Detailed investigation of continental shelf morphology using a high-resolution swath sonar survey: the Eel margin, northern California. Marine Geology, 1999, 154, 255-269.	0.9	76
32	3D visualization for pelagic fisheries research and assessment. ICES Journal of Marine Science, 2002, 59, 216-225.	1.2	70
33	Morphology, volcanism, and mass wasting in Crater Lake, Oregon. Bulletin of the Geological Society of America, 2002, 114, 675-692.	1.6	69
34	Extraction of high-resolution carbonate data for palaeoclimate reconstruction. Nature, 1991, 352, 148-150.	13.7	63
35	Giant flute-like scour and other erosional features formed by the 1929 Grand Banks turbidity current. Sedimentology, 1990, 37, 631-645.	1.6	58
36	Great Lakes paleohydrology: Complex interplay of glacial meltwater, lake levels, and sill depths. Geology, 1994, 22, 1059.	2.0	57

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37	An integrated approach to flood hazard assessment on alluvial fans using numerical modeling, field mapping, and remote sensing. Bulletin of the Geological Society of America, 2005, 117, 1167.	1.6	57
38	Stratigraphy and paleolimnologic record of lower Holocene sediments in northern Lake Huron and Georgian Bay. Canadian Journal of Earth Sciences, 1994, 31, 1586-1605.	0.6	55
39	Acoustic backscatter of the 1995 flood deposit on the Eel shelf. Marine Geology, 1999, 154, 197-210.	0.9	55
40	The origin of fine scale acoustic stratigraphy in deepâ€sea carbonates. Journal of Geophysical Research, 1979, 84, 6177-6184.	3.3	50
41	Drowned shelf-edge deltas, barrier islands and related features along the outer continental shelf north of the head of De Soto Canyon, NE Gulf of Mexico. Geomorphology, 2007, 89, 370-390.	1.1	50
42	Multibeam bathymetric and sediment profiler evidence for ice grounding on the Chukchi Borderland, Arctic Ocean. Quaternary Research, 2005, 63, 150-160.	1.0	48
43	First bedrock samples dredged from submarine outcrops in the Chukchi Borderland, Arctic Ocean. , 2015, 11, 76-92.		48
44	Shelf-edge deltas and drowned barrier–island complexes on the northwest Florida outer continental shelf. Geomorphology, 2005, 64, 133-166.	1.1	47
45	The high-frequency backscattering angular response of gassy sediments: Model/data comparison from the Eel River Margin, California. Journal of the Acoustical Society of America, 2002, 111, 2621-2631.	0.5	46
46	Geomorphology, acoustic backscatter, and processes in Santa Monica Bay from multibeam mapping. Marine Environmental Research, 2003, 56, 15-46.	1.1	44
47	Seismic stratigraphy of Lake Huron – Georgian Bay and postglacial lake level history. Canadian Journal of Earth Sciences, 1994, 31, 1606-1617.	0.6	41
48	Construction of seafloor thematic maps from multibeam acoustic backscatter angular response data. Computers and Geosciences, 2012, 41, 181-187.	2.0	41
49	The Holocene retreat dynamics and stability of Petermann Glacier in northwest Greenland. Nature Communications, 2018, 9, 2104.	5.8	39
50	Furrowed mud waves on the western Bermuda Rise. Bulletin of the Geological Society of America, 1980, 91, 731.	1.6	36
51	Organic carbon deposition on the North Carolina continental slope off Cape Hatteras (USA). Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 4687-4709.	0.6	36
52	Estimating oil concentration and flow rate with calibrated vessel-mounted acoustic echo sounders. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20240-20245.	3.3	36
53	Scientific basis for safely shutting in the Macondo Well after the April 20, 2010 <i>Deepwater Horizon</i> blowout. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20268-20273.	3.3	35
54	Deep-sea carbonates: Physical property relationships and the origin of high-frequency acoustic reflectors. Marine Geology, 1980, 38, 165-183.	0.9	33

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55	High-Resolution Mapping of Mines and Ripples at the Martha's Vineyard Coastal Observatory. IEEE Journal of Oceanic Engineering, 2007, 32, 133-149.	2.1	33
56	A Bathymetry- and Reflectivity-Based Approach for Seafloor Segmentation. Geosciences (Switzerland), 2018, 8, 14.	1.0	32
57	Mapping supports potential submission to U.N. Law of the Sea. Eos, 2006, 87, 157.	0.1	30
58	Scientific Challenges and Present Capabilities in Underwater Robotic Vehicle Design and Navigation for Oceanographic Exploration Under-Ice. Remote Sensing, 2020, 12, 2588.	1.8	30
59	Ryder Glacier in northwest Greenland is shielded from warm Atlantic water by a bathymetric sill. Communications Earth & Environment, 2020, 1 , .	2.6	28
60	The International Bathymetric Chart of the Southern Ocean Version 2. Scientific Data, 2022, 9, .	2.4	28
61	Commercial fishing vessels, automatic acoustic logging systems and 3D data visualization. ICES Journal of Marine Science, 2002, 59, 179-189.	1.2	27
62	A detailed seabed signature from Hurricane Sandy revealed in bedforms and scour. Geochemistry, Geophysics, Geosystems, 2013, 14, 4334-4340.	1.0	27
63	Acoustic Mapping of Thermohaline Staircases in the Arctic Ocean. Scientific Reports, 2017, 7, 15192.	1.6	27
64	An Automatic Procedure for the Quantitative Characterization of Submarine Bedforms. Geosciences (Switzerland), 2018, 8, 28.	1.0	27
65	Dissolution of biogenic ooze over basement edifices in the equatorial Pacific with implications for hydrothermal ventilation of the oceanic crust. Geology, 2007, 35, 679.	2.0	26
66	Sediment identification using free fall penetrometer acceleration-time histories. Marine Geophysical Researches, 2011, 32, 397-411.	0.5	26
67	Mapping submarine glacial landforms using acoustic methods. Geological Society Memoir, 2016, 46, 17-40.	0.9	24
68	Holocene break-up and reestablishment of the Petermann Ice Tongue, Northwest Greenland. Quaternary Science Reviews, 2019, 218, 322-342.	1.4	23
69	Erosional troughs in deep-sea carbonates and their relationship to basement structure. Marine Geology, 1981, 39, 59-80.	0.9	22
70	Active tectonics of the Loreto area, Baja California Sur, Mexico. Geomorphology, 1999, 27, 243-255.	1.1	22
71	The De Long Trough: a newly discovered glacial trough on the East Siberian continental margin. Climate of the Past, 2017, 13, 1269-1284.	1.3	22
72	Use of packrat middens to determine rates of cliff retreat in the eastern Grand Canyon, Arizona. Geology, 1982, 10, 597.	2.0	21

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73	Mine Burial Experiments at the Martha's Vineyard Coastal Observatory. IEEE Journal of Oceanic Engineering, 2007, 32, 150-166.	2.1	21
74	A wideband acoustic method for direct assessment of bubble-mediated methane flux. Continental Shelf Research, 2019, 173, 104-115.	0.9	21
75	Glacial sedimentation, fluxes and erosion rates associated with ice retreat in Petermann Fjord and Nares Strait, north-west Greenland. Cryosphere, 2020, 14, 261-286.	1.5	21
76	Calculation of acoustic parameters by a filterâ€correlation method. Journal of the Acoustical Society of America, 1993, 93, 1145-1154.	0.5	19
77	High resolution mapping of offshore and onshore glaciogenic features in metamorphic bedrock terrain, Melville Bay, northwestern Greenland. Geomorphology, 2015, 250, 29-40.	1.1	19
78	Investigation of seabed fishing impacts on benthic structure using multi-beam sonar, sidescan sonar, and video. ICES Journal of Marine Science, 2007, 64, 1053-1065.	1.2	18
79	Swath Mapping on the Continental Shelf and Slope: The Eel River Basin, Northern California. Oceanography, 1996, 9, 178-182.	0.5	18
80	Acoustic mapping of mixed layer depth. Ocean Science, 2018, 14, 503-514.	1.3	15
81	Standardized Geomorphic Classification of Seafloor Within the United States Atlantic Canyons and Continental Margin. Frontiers in Marine Science, 2020, 7, .	1.2	15
82	A deep scattering layer under the North Pole pack ice. Progress in Oceanography, 2021, 194, 102560.	1.5	15
83	Acoustic properties of fineâ€grained sediments from Emerald Basin: Toward an inversion for physical properties using the Biot–Stoll model. Journal of the Acoustical Society of America, 1993, 93, 3193-3200.	0.5	14
84	Bathymetry and oceanic flow structure at two deep passages crossing the Lomonosov Ridge. Ocean Science, 2018, 14, 1-13.	1.3	14
85	In-Situ Determination of the Variability of Seafloor Acoustic Properties: An Example from the Onr Geoclutter Area., 2002,, 115-122.		14
86	Core-log-seismic integration as a framework for determining the basin-wide significance of regional reflectors in the eastern equatorial Pacific. Geophysical Research Letters, 1997, 24, 321-324.	1.5	13
87	A framework to quantify uncertainties of seafloor backscatter from swath mapping echosounders. Marine Geophysical Researches, 2018, 39, 151-168.	0.5	13
88	Hydraulic piston coring of late Neogene and Quaternary sections in the Caribbean and equatorial Pacific: Preliminary results of Deep Sea Drilling Project Leg 68. Bulletin of the Geological Society of America, 1980, 91, 433.	1.6	13
89	Deep-sea Geo-referenced Video Mosaics. , 2006, , .		12
90	Multibeam sonar backscatter lineaments and anthropogenic organic components in lacustrine silty clay, evidence of shipping in western Lake Ontario. International Journal of Coal Geology, 2000, 43, 307-324.	1.9	11

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91	Derivation of $\hat{\Gamma}180$ from sediment core log data: Implications for millennial-scale climate change in the Labrador Sea. Paleoceanography, 2001, 16, 503-514.	3.0	11
92	Evolution of a benthic imaging system from a towed camera to an automated habitat characterization system. , $2008, , .$		11
93	The Holocene dynamics of Ryder Glacier and ice tongue in north Greenland. Cryosphere, 2021, 15, 4073-4097.	1.5	11
94	Design of Nereid-UI: A remotely operated underwater vehicle for oceanographic access under ice. , 2014, , .		10
95	Basalts From the Chukchi Borderland: ⁴⁰ Ar/ ³⁹ Ar Ages and Geochemistry of Submarine Intraplate Lavas Dredged From the Western Arctic Ocean. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017604.	1.4	10
96	The effect of two 12 kHz multibeam mapping surveys on the foraging behavior of Cuvier's beaked whales off of southern California. Journal of the Acoustical Society of America, 2020, 147, 3849-3858.	0.5	10
97	Downhole Logging as a Paeoceanographic Tool on Ocean Drilling Program Leg 138: Interface Between High-Resolution Stratigraphy and Regional Syntheses. Paleoceanography, 1992, 7, 691-700.	3.0	9
98	Measurements of acoustic backscatter and density of captive Atlantic cod with synchronized 300-kHz multibeam and 120-kHz split-beam echosounders. ICES Journal of Marine Science, 2009, 66, 1303-1309.	1.2	9
99	Geological interpretation of a low-backscatter anomaly found on the New Jersey continental margin. Marine Geology, 2012, 326-328, 46-54.	0.9	9
100	Fractal characteristics of desert storm sequences and implications for geomorphic studies. Geomorphology, 1992, 5, 167-183.	1.1	8
101	Deep-sea image processing. , 0, , .		8
102	Application of landscape mosaics for the assessment of subtidal macroalgae communities using the CFR index. Deep-Sea Research Part II: Topical Studies in Oceanography, 2014, 106, 207-215.	0.6	8
103	Polar Region Bathymetry: Critical Knowledge for the Prediction of Global Sea Level Rise. Frontiers in Marine Science, 2022, 8, .	1.2	8
104	Data structures for fast searching of SEG-Y seismic data. Computers and Geosciences, 1999, 25, 179-190.	2.0	7
105	Sediment mixing in the tropical Pacific and radiolarian stratigraphy. Geochemistry, Geophysics, Geosystems, 2012, 13, .	1.0	7
106	Stratigraphic Model Predictions of Geoacoustic Properties. IEEE Journal of Oceanic Engineering, 2006, 31, 266-283.	2.1	6
107	Acoustic Sensing of Gas Seeps in the Deep Ocean with Split-beam Echosounders. Proceedings of Meetings on Acoustics, 2012, , .	0.3	6
108	Fineâ€scale mapping of deepâ€sea habitatâ€forming species densities reveals taxonomic specific environmental drivers. Global Ecology and Biogeography, 2021, 30, 1286-1298.	2.7	6

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109	Cenozoic paleoceanography 1986: An introduction. Paleoceanography, 1987, 2, 613-623.	3.0	5
110	Three-dimensional visualization of orbital forcing and climatic repsonse: Interactively exploring the pacemaker of the ice ages. Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie, 1996, 85, 505-512.	1.3	5
111	Enhanced Acoustic Backscatter Due to High Abundance of Sand Dollars, <i>Dendraster excentricus </i> Marine Georesources and Geotechnology, 2001, 19, 135-145.	1.2	5
112	Lightly tethered unmanned underwater vehicle for under-ice exploration. , 2012, , .		5
113	Evaluation of arctic multibeam sonar data quality using nadir crossover error analysis and compilation of a full-resolution data product. Computers and Geosciences, 2014, 66, 228-236.	2.0	5
114	Tracking the spatiotemporal variability of the oxic–anoxic interface in the Baltic Sea with broadband acoustics. ICES Journal of Marine Science, 2020, 77, 2814-2824.	1.2	5
115	Acoustic transducer calibration system. , 2003, , .		4
116	Inventory and comparative evaluation of seabed mapping, classification and modeling activities in the Northwest Atlantic, USA to support regional ocean planning. Journal of Sea Research, 2015, 100, 133-140.	0.6	4
117	Mass wasting on Alpha Ridge in the Arctic Ocean: new insights from multibeam bathymetry and sub-bottom profiler data. Geological Society Special Publication, 2020, 500, 323-340.	0.8	4
118	Modelling of Pliocene–Pleistocene abyssal mudwaves using synthetic seismograms. Marine Geology, 1998, 149, 3-16.	0.9	3
119	Acoustic Positioning and Tracking in Portsmouth Harbor, New Hampshire. , 2007, , .		3
120	Applications of the Gulf of Maine Operational Forecast System to Enhance Spatio-Temporal Oceanographic Awareness for Ocean Mapping. Frontiers in Marine Science, 2020, 6, .	1.2	3
121	Seal Occurrence and Habitat Use during Summer in Petermann Fjord, Northwestern Greenland. Arctic, 2018, 71, .	0.2	3
122	Time-thickness bar diagrams: Simultaneous display of lithostratigraphic thickness and chronostratigraphic range. Geology, 1984, 12, 7.	2.0	2
123	Contributions from the oceanic record to the study of global change on three time scales $\hat{a} \in \mathbb{R}^n$. Report of working group 1, interlaken workshop for past global changes. Palaeogeography, Palaeoclimatology, Palaeoecology, 1990, 82, 5-37.	1.0	2
124	Enhanced Acoustic Backscatter Due to High Abundance of Sand Dollars, Dendraster excentricus. Marine Georesources and Geotechnology, 2001, 19, 135-145.	1.2	2
125	Nereid UI: A Light-Tethered Remotely Operated Vehicle for Under-Ice Telepresence. , 2012, , .		2
126	Chatham Fan and adjacent upper Baranof Fan channels and levee, US Gulf of Alaska margin. Geological Society Memoir, 2016, 46, 387-388.	0.9	2

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127	Glacial landforms in a hard bedrock terrain, Melville Bay, northwestern Greenland. Geological Society Memoir, 2016, 46, 201-202.	0.9	2
128	Teaching the Use of Geological Equipment with a Microcomputer. Journal of Geoscience Education, 1987, 35, 266-270.	0.2	2
129	Novel Acoustics Applications/Seafloor Engineering. , 1987, , .		1
130	WBANDZ: A C program to calibrate the hydrologic model and calculate monthly water balance and Palmer's Z-index. Computers and Geosciences, 1993, 19, 1267-1283.	2.0	1
131	Effect of storm clustering on water balance estimates and its implications for climate impact assessment. Climatic Change, 1994, 27, 321-342.	1.7	1
132	Cascades and plunge pools on the continental slope of the Gulf of Alaska. Geological Society Memoir, 2016, 46, 389-390.	0.9	1
133	An ultrahigh-latitude submarine channel: Northern Chukchi Rise. Geological Society Memoir, 2016, 46, 391-392.	0.9	1
134	A global geographic grid system for visualizing bathymetry. Geoscientific Instrumentation, Methods and Data Systems, 2020, 9, 375-384.	0.6	1
135	Three-dimensional visualization of orbital forcing and climatic reponse: interactively exploring the pacemaker of the ice ages. Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie, 1996, 85, 505.	1.3	1
136	Bubble vent localization for marine hydrocarbon seep surveys. Interpretation, 2022, 10, SB107-SB128.	0.5	1
137	Comments and Replies on †Use of packrat middens to determine rates of cliff retreat in the eastern Grand Canyon, Arizona'. Geology, 1983, 11, 314.	2.0	0
138	Comment and Reply on â€~Use of packrat middens to determine rates of cliff retreat in the eastern Grand Canyon, Arizona'. Geology, 1983, 11, 494.	2.0	0
139	Microtopographic evolution of mineral surfaces as a tool to identify and date young fault scarps in bedrock. Journal of Geodynamics, 2000, 29, 393-406.	0.7	0
140	Surface, Subsurface, and Deep Imaging: Acquisition, Processing, and Interpretation of Seismic and Acoustic Data. Energy Exploration and Exploitation, 2003, 21, 303-307.	1.1	0
141	Geomorphology and microhabitats of large, isolated, immobile bedforms in the Great South Channel, Northwest Atlantic Ocean. , 2020, , 503-518.		0
142	Inspiring U.S. Contributions to the UN Ocean Decade: The U.S. National Committee and Ocean-Shots. Marine Technology Society Journal, 2021, 55, 58-61.	0.3	0
143	Acoustic and optical observations of methane gas seeps in the Gulf of Mexico. Proceedings of Meetings on Acoustics, 2013 , , .	0.3	0
144	Yin and Yang of mucosal immunology. Transplantation Proceedings, 1996, 28, 2435-7.	0.3	0