David C Mohrig

List of Publications by Year
in descending order

125 papers	7,433 citations	44069 48 h-index	56724 83 g-index
131 all docs	131 docs citations	131 times ranked	4828 citing authors

#	Article	IF	Citations
1	Coriolis effect recorded in Late Pleistocene Marine Isotope Stage 5e Bahamian aeolianites. Geology, 2022, 50, 567-571.	4.4	3
2	Bidirectional Riverâ€Floodplain Connectivity During Combined Pluvialâ€Fluvial Events. Water Resources Research, 2022, 58, .	4.2	12
3	Tributary channel networks formed by depositional processes. Nature Geoscience, 2022, 15, 216-221.	12.9	6
4	Channel trajectories control deepâ€water stratigraphic architecture. Depositional Record, 2022, 8, 880-894.	1.7	5
5	A multi-proxy assessment of terrace formation in the lower Trinity River valley, Texas. Earth Surface Dynamics, 2022, 10, 635-651.	2.4	3
6	Deep-water depositional systems supplied by shelf-incising submarine canyons: Recognition and significance in the geologic record. Earth-Science Reviews, 2021, 214, 103531.	9.1	26
7	Modern coastal tempestite deposition by a nonâ€local storm: Swellâ€generated transport of sand and boulders on Eleuthera, The Bahamas. Sedimentology, 2021, 68, 2043-2068.	3.1	3
8	Autogenic translation and counter point bar deposition in meandering rivers. Bulletin of the Geological Society of America, 2021, 133, 2439-2456.	3.3	20
9	The effects of storms and a transient sandy veneer on the interannual planform evolution of a low-relief coastal cliff and shore platform at Sargent Beach, Texas, USA. Earth Surface Dynamics, 2021, 9, 1111-1123.	2.4	0
10	The Oligoceneâ€Miocene Guadalopeâ€Matarranya Fan, Spain, as an Analog for Longâ€Lived, Ridgeâ€Bearing Megafans on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006993.	3.6	1
11	Sandâ€“mud couplets deposited by spontaneous remobilization of subaqueous transitional flows. Sedimentology, 2020, 67, 78-95.	3.1	7
12	Reachâ€scale changes in channel geometry and dynamics due to the coastal backwater effect: the lower Trinity River, Texas. Earth Surface Processes and Landforms, 2020, 45, 565-573.	2.5	14
13	Universal relation with regime transition for sediment transport in fine-grained rivers. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 171-176.	7.1	26
14	The anatomy of exhumed riverâ€channel belts: Bedform to beltâ€scale river kinematics of the Ruby Ranch Member, Cretaceous Cedar Mountain Formation, Utah, USA. Sedimentology, 2020, 67, 3655-3682.	3.1	23
15	Deep-ocean seafloor islands of plastics. Science, 2020, 368, 1055-1055.	12.6	20
16	Quantifying Coastal Fluvial Morphodynamics Over the Last 100ÂYears on the Lower Rio Grande, USA and Mexico. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005443.	2.8	4
17	Short-Term Ecogeomorphic Evolution of a Fluvial Delta from Hindcasting Intertidal Marsh-Top Elevations (HIME). Remote Sensing, 2020, 12, 1517.	4.0	0
18	The effect of flood intermittency on bifurcations in fluviodeltaic systems: Experiment and theory. Sedimentology, 2020, 67, 3055-3066.	3.1	7

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19	Flow substrate interactions in aggrading and degrading submarine channels. Journal of Sedimentary Research, 2020, 90, 573-583.	1.6	7
20	Pattern evolution and interactions in subaqueous dune fields: North Loup River, Nebraska, U.S.A.. Journal of Sedimentary Research, 2020, 90, 1734-1746.	1.6	4
21	Deltaic deposits indicative of a paleo-coastline at Aeolis Dorsa, Mars. Icarus, 2019, 317, 442-453.	2.5	24
22	Antecedent aeolian dune topographic control on carbonate and evaporite facies: Middle Jurassic Todilto Member, Wanakah Formation, Ghost Ranch, New Mexico, USA. Sedimentology, 2019, 66, 808-837.	3.1	9
23	Scroll bars are inner bank levees along meandering river bends. Earth Surface Processes and Landforms, 2019, 44, 2649-2659.	2.5	18
24	Ripple Effects: Bed Form Morphodynamics Cascading Into Hyporheic Zone Biogeochemistry. Water Resources Research, 2019, 55, 7320-7342.	4.2	32
25	Incision of paleolake outlet canyons on Mars from overflow flooding. Geology, 2019, 47, 7-10.	4.4	20
26	Differential bank migration and the maintenance of channel width in meandering river bends. Geology, 2019, 47, 1136-1140.	4.4	23
27	Flow and Sediment Flux Asymmetry in a Branching Channel Delta. Water Resources Research, 2019, 55, 9563-9577.	4.2	9
28	Preservation of Autogenic Processes and Allogenic Forcings in Set-Scale Aeolian Architecture I: Numerical Experiments. Journal of Sedimentary Research, 2019, 89, 728-740.	1.6	16
29	Preservation of Autogenic Processes and Allogenic Forcings in Set-Scale Aeolian Architecture II: The Scour-and-Fill Dominated Jurassic Page Sandstone, Arizona, U.S.A.. Journal of Sedimentary Research, 2019, 89, 741-760.	1.6	16
30	Experimental Investigations of Combined Flow Sediment Transport. Journal of Sedimentary Research, 2019, 89, 808-814.	1.6	4
31	Factors Controlling Storage, Sources, and Diagenetic State of Organic Carbon in a Prograding Subaerial Delta: Wax Lake Delta, Louisiana. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1115-1131.	3.0	12
32	The Effect of Remote Sensing Resolution Limits on Aeolian Sandstone Measurements and the Reconstruction of Ancient Dune Fields on Mars: Numerical Experiment Using the Page Sandstone, Earth. Journal of Geophysical Research E: Planets, 2019, 124, 3244-3256.	3.6	0
33	Depositional settings and history of the Lower Miocene Fleming Group, Refugio County, Texas, as defined using seismic geomorphology. Marine and Petroleum Geology, 2018, 92, 565-581.	3.3	6
34	Time Not Our Time: Physical Controls on the Preservation and Measurement of Geologic Time. Annual Review of Earth and Planetary Sciences, 2018, 46, 409-438.	11.0	65
35	Bedform spurs: a result of a trailing helical vortex wake. Sedimentology, 2018, 65, 191-208.	3.1	18
36	Subsurface and outcrop characteristics of fluvialâ€dominated deepâ€lacustrine clinoforms. Sedimentology, 2018, 65, 1447-1481.	3.1	17

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37	Stratigraphy and paleohydrology of delta channel deposits, Jezero crater, Mars. Icarus, 2018, 301, 58-75.	2.5	83
38	Fluvial stratigraphy of valley fills at Aeolis Dorsa, Mars: Evidence for base-level fluctuations controlled by a downstream water body. Bulletin of the Geological Society of America, 2018, 130, 484-498.	3.3	44
39	Addressing time-scaleâ€“dependent erosion rates from measurement methods with censorship. Bulletin of the Geological Society of America, 2018, 130, 381-395.	3.3	7
40	Inferring surface currents within submerged, vegetated deltaic islands and wetlands from multi-pass airborne SAR. Remote Sensing of Environment, 2018, 212, 148-160.	11.0	16
41	Transfer Entropy as a Tool for Hydrodynamic Model Validation. Entropy, 2018, 20, 58.	2.2	17
42	Using Timeâ€Lapse Lidar to Quantify River Bend Evolution on the Meandering Coastal Trinity River, Texas, USA. Journal of Geophysical Research F: Earth Surface, 2018, 123, 1133-1144.	2.8	21
43	Elevation change and stability on a prograding delta. Geophysical Research Letters, 2017, 44, 1786-1794.	4.0	33
44	Carbon storage in the Mississippi River delta enhanced by environmental engineering. Nature Geoscience, 2017, 10, 846-851.	12.9	41
45	Geomorphic signature of a dammed Sandy River: The lower Trinity River downstream of Livingston Dam in Texas, USA. Geomorphology, 2017, 297, 122-136.	2.6	34
46	The role of buoyancy reversal in turbidite deposition and submarine fan geometry. Geology, 2017, 45, 35-38.	4.4	24
47	A Surface Model for Aeolian Dune Topography. Mathematical Geosciences, 2017, 49, 635-655.	2.4	11
48	Carving intracrater layered deposits with wind on Mars. Geophysical Research Letters, 2016, 43, 2473-2479.	4.0	51
49	Aeolian dune sediment flux variability over an annual cycle of wind. Sedimentology, 2016, 63, 1753-1764.	3.1	20
50	Flow patterns and morphology of a prograding river delta. Journal of Geophysical Research F: Earth Surface, 2016, 121, 372-391.	2.8	64
51	Connecting the backwater hydraulics of coastal rivers to fluvio-deltaic sedimentology and stratigraphy. Geology, 2016, 44, 979-982.	4.4	65
52	Airborne radar imaging of subaqueous channel evolution in Wax Lake Delta, Louisiana, USA. Geophysical Research Letters, 2016, 43, 5035-5042.	4.0	27
53	Experimental tsunami deposits: Linking hydrodynamics to sediment entrainment, advection lengths and downstream fining. Geomorphology, 2016, 253, 478-490.	2.6	21
54	Internal connectivity of meandering rivers: Statistical generalization of channel hydraulic geometry. Water Resources Research, 2015, 51, 7485-7500.	4.2	7

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55	Dune deformation in a multiâ€directional wind regime: White Sands Dune Field, New Mexico. Earth Surface Processes and Landforms, 2015, 40, 925-941.	2.5	26
56	Response of fluvial, aeolian, and lacustrine systems to late Pleistocene to Holocene climate change, Lower Moravian Basin, Czech Republic. Geomorphology, 2015, 232, 193-208.	2.6	28
57	Tracking hurricane-generated storm surge with washover fan stratigraphy. Geology, 2015, 43, 127-130.	4.4	29
58	Acoustic Imaging Of Experimental Subaqueous Sediment-Laden Flows And Their Deposits. Journal of Sedimentary Research, 2014, 85, 1-5.	1.6	5
59	Paleoslope Reconstruction In Sandy Suspended-Load-Dominant Rivers. Journal of Sedimentary Research, 2014, 84, 825-836.	1.6	30
60	The importance of erosion in distributary channel network growth, Wax Lake Delta, Louisiana, USA. Geology, 2014, 42, 31-34.	4.4	102
61	Definition and origin of the dune-field pattern at White Sands, New Mexico. Aeolian Research, 2014, 15, 269-287.	2.7	41
62	Influence of growth faults on coastal fluvial systems: Examples from the late Miocene to Recent Mississippi River Delta. Sedimentary Geology, 2014, 301, 120-132.	2.1	33
63	Sand on salt: Controls on dune subsidence and determining salt substrate thickness. Lithosphere, 2014, 6, 195-199.	1.4	6
64	Mechanics of dual-mode dilative failure in subaqueous sediment deposits. Earth and Planetary Science Letters, 2014, 397, 10-18.	4.4	9
65	How heterogeneity in the shear dilation of a deposit controls the mechanics of breaching slope failure. Journal of Geophysical Research F: Earth Surface, 2014, 119, 2381-2395.	2.8	1
66	Channel-like features created by erosive submarine debris flows: Field evidence from the Middle Eocene Ainsa Basin, Spanish Pyrenees. Marine and Petroleum Geology, 2013, 41, 62-71.	3.3	49
67	Estimation of the paleoflux of terrestrial-derived solids across ancient basin margins using the stratigraphic record. Bulletin of the Geological Society of America, 2013, 125, 578-593.	3.3	41
68	The morphology and evolution of channels on the Wax Lake Delta, Louisiana, USA. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1562-1584.	2.8	90
69	Cost analysis of water and sediment diversions to optimize land building in the Mississippi River delta. Water Resources Research, 2013, 49, 3388-3405.	4.2	25
70	Spatial and temporal trends for water-flow velocity and bed-material sediment transport in the lower Mississippi River. Bulletin of the Geological Society of America, 2012, 124, 400-414.	3.3	167
71	Emplacement of massive turbidites linked to extinction of turbulence in turbidity currents. Nature Geoscience, 2012, 5, 42-45.	12.9	81
72	Backwater and river plume controls on scour upstream of river mouths: Implications for fluvioâ€deltaic morphodynamics. Journal of Geophysical Research, 2012, 117, .	3.3	146

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73	Methodology for reconstructing wind direction, wind speed and duration of wind events from aeolian crossâ€strata. Journal of Geophysical Research, 2012, 117, .	3.3	61
74	Correction to â€œNature of deformation of sandy bed formsâ€• Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	1
75	Dynamics of dilative slope failure. Geology, 2012, 40, 663-666.	4.4	20
76	Mudflow transport behavior and deposit morphology: Role of shear stress to yield strength ratio in subaqueous experiments. Marine Geology, 2012, 307-310, 28-39.	2.1	43
77	Architecture of an Aggradational Tributary Submarine-Channel Network on the Continental Slope Offshore Brunei Darussalam. , 2012, , 13-30.		14
78	Punctuated sand transport in the lowermost Mississippi River. Journal of Geophysical Research, 2011, 116, .	3.3	67
79	Natural Processes in Delta Restoration: Application to the Mississippi Delta. Annual Review of Marine Science, 2011, 3, 67-91.	11.6	246
80	Quantifying the influence of channel sinuosity on the depositional mechanics of channelized turbidity currents: A laboratory study. Marine and Petroleum Geology, 2011, 28, 744-760.	3.3	60
81	The lowermost Mississippi River: a mixed bedrockâ€alluvial channel. Sedimentology, 2011, 58, 1914-1934.	3.1	84
82	Inundation Model As an Aid for Predicting Ecological Succession on Newly-Created Deltaic Land Associated with Mississippi River Diversions: Application to the Wax Lake Delta. , 2011, , .		3
83	Topset-dominated deltas: A new model for river delta stratigraphy. Geology, 2011, 39, 1175-1178.	4.4	68
84	How do bedform patterns arise? New views on the role of bedform interactions within a set of boundary conditions. Earth Surface Processes and Landforms, 2010, 35, 51-63.	2.5	135
85	Linking river-flood dynamics to hyperpycnal-plume deposits: Experiments, theory, and geological implications. Bulletin of the Geological Society of America, 2010, 122, 1389-1400.	3.3	79
86	Statistical Characterization of Grain-Size Distributions in Sandy Fluvial Systems. Journal of Sedimentary Research, 2010, 80, 184-192.	1.6	31
87	Do hyperpycnal-flow deposits record river-flood dynamics?. Geology, 2009, 37, 1067-1070.	4.4	122
88	The â€œunreasonable effectivenessâ€•of stratigraphic and geomorphic experiments. Earth-Science Reviews, 2009, 97, 1-43.	9.1	399
89	Growth laws for channel networks incised byÂgroundwater flow. Nature Geoscience, 2009, 2, 193-196.	12.9	88
90	Sublacustrine depositional fans in southwest Melas Chasma. Journal of Geophysical Research, 2009, 114, .	3.3	68

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91	Compensational Stacking of Channelized Sedimentary Deposits. Journal of Sedimentary Research, 2009, 79, 673-688.	1.6	175
92	Nature of deformation of sandy bed forms. Journal of Geophysical Research, 2009, 114, .	3.3	71
93	Is It Feasible to Build New Land in the Mississippi River Delta?. Eos, 2009, 90, 373-374.	0.1	178
94	Constructional Canyons Built by Sheet-Like Turbidity Currents: Observations from Offshore Brunei Darussalam. Journal of Sedimentary Research, 2009, 79, 24-39.	1.6	49
95	Quantifying the morphology and growth of levees in aggrading submarine channels. Journal of Geophysical Research, 2008, 113, .	3.3	49
96	Interactions between turbidity currents and topography in aggrading sinuous submarine channels: A laboratory study. Bulletin of the Geological Society of America, 2008, 120, 368-385.	3.3	123
97	Reconstructing relative flooding intensities responsible for hurricane-induced deposits from Laguna Playa Grande, Vieques, Puerto Rico. Geology, 2008, 36, 391.	4.4	106
98	Conditions for branching in depositional rivers. Geology, 2007, 35, 463.	4.4	236
99	Deep turbidity currents in shallow channels. Geology, 2007, 35, 155.	4.4	54
100	Erosive dynamics of channels incised by subsurface water flow. Journal of Geophysical Research, 2007, 112, .	3.3	54
101	Channel network scaling laws in submarine basins. Geophysical Research Letters, 2007, 34, .	4.0	18
102	Spatial grain size sorting in eolian ripples and estimation of wind conditions on planetary surfaces: Application to Meridiani Planum, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	137
103	Toward a unified science of the Earth's surface: Opportunities for synthesis among hydrology, geomorphology, geochemistry, and ecology. Water Resources Research, 2006, 42, .	4.2	83
104	Frozen dynamics of migrating bedforms. Geology, 2005, 33, 57.	4.4	49
105	Formation of Precambrian sediment ripples. Nature, 2005, 436, E1-E1.	27.8	13
106	Interactions between bed forms: Topography, turbulence, and transport. Journal of Geophysical Research, 2005, 110, .	3.3	38
107	A unified model for subaqueous bed form dynamics. Water Resources Research, 2005, 41, .	4.2	101
108	Numerical modeling of flow and bed evolution in meandering submarine channels. Journal of Geophysical Research, 2004, 109, .	3.3	39

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109	A minimum time for the formation of Holden Northeast fan, Mars. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	90
110	Constraining the efficiency of turbidity current generation from submarine debris flows and slides using laboratory experiments. Marine and Petroleum Geology, 2003, 20, 883-899.	3.3	127
111	Lateral accretion packages (LAPs): an important reservoir element in deep water sinuous channels. Marine and Petroleum Geology, 2003, 20, 631-648.	3.3	318
112	Hydroplaning of subaqueous debris flows and glide blocks: Analytical solutions and discussion. Journal of Geophysical Research, 2003, 108, .	3.3	54
113	Experimental Stratigraphy. GSA Today, 2001, 11, 4.	2.0	86
114	On the Dynamics of Subaqueous Debris Flows. Oceanography, 2000, 13, 109-117.	1.0	36
115	Title is missing!. Bulletin of the Geological Society of America, 2000, 112, 1787.	3.3	324
116	Experiments on the relative mobility of muddy subaqueous and subaerial debris flows, and their capacity to remobilize antecedent deposits. Marine Geology, 1999, 154, 117-129.	2.1	163
117	The Influence of Transport Fluctuations on Spatially Averaged Topography on a Sandy, Braided Fluvial Fan. , 1999, , .		18
118	Alluvial Fans Formed by Channelized Fluvial and Sheet Flow. I: Theory. Journal of Hydraulic Engineering, 1998, 124, 985-995.	1.5	201
119	Alluvial Fans Formed by Channelized Fluvial and Sheet Flow. II: Application. Journal of Hydraulic Engineering, 1998, 124, 996-1004.	1.5	49
120	Hydroplaning of subaqueous debris flows. Bulletin of the Geological Society of America, 1998, 110, 387-394.	3.3	339
121	Channel Dynamics, Sediment Transport, and the Slope of Alluvial Fans: Experimental Study. Journal of Geology, 1998, 106, 677-694.	1.4	158
122	Predicting the migration rates of subaqueous dunes. Water Resources Research, 1996, 32, 3207-3217.	4.2	70
123	Palaeohydraulics revisited: palaeoslope estimation in coarse-grained braided rivers. Basin Research, 1996, 8, 243-254.	2.7	165
124	Studies of Mass-Movement Processes on Submarine Slopes. Oceanography, 1996, 9, 168-172.	1.0	5
125	Vapor deposition in basaltic stalactites, Kilauea, Hawaii. Lithos, 1985, 18, 151-160.	1.4	2