David M Rubin

List of Publications by Year
in descending order

83 papers	7,827 citations	50244 46 h-index	58549 82 g-index
95 all docs	95 docs citations	95 times ranked	4792 citing authors

#	Article	IF	Citations
1	Ancient Winds, Waves, and Atmosphere in Gale Crater, Mars, Inferred From Sedimentary Structures and Wave Modeling. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	7
2	Orbital and Inâ€Situ Investigation of Periodic Bedrock Ridges in Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	18
3	Burial and Exhumation of Sedimentary Rocks Revealed by the Base Stimson Erosional Unconformity, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
4	A Rock Record of Complex Aeolian Bedforms in a Hesperian Desert Landscape: The Stimson Formation as Exposed in the Murray Buttes, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006554.	1.5	34
5	Evidence for a Diagenetic Origin of Vera Rubin Ridge, Gale Crater, Mars: Summary and Synthesis of <i>Curiosity</i>'s Exploration Campaign. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006527.	1.5	69
6	Causes of Variability in Suspendedâ€Sand Concentration Evaluated Using Measurements in the Colorado River in Grand Canyon. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005226.	1.0	7
7	A Lacustrine Paleoenvironment Recorded at Vera RubinRidge, Gale Crater: Overview of the Sedimentology and Stratigraphy Observed by the Mars ScienceLaboratory Curiosity Rover. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006307.	1.5	69
8	A ROCK RECORD OF COMPLEX AEOLIAN BEDFORMS IN A HESPERIAN DESERT LANDSCAPE:THE STIMSON FORMATION AS EXPOSED IN THE MURRAY BUTTES, GALE CRATER, MARS. , 2020, , .		1
9	Evidence for plunging river plume deposits in the Pahrump Hills member of the Murray formation, Gale crater, Mars. Sedimentology, 2019, 66, 1768-1802.	1.6	80
10	Ancient Martian aeolian processes and palaeomorphology reconstructed from the Stimson formation on the lower slope of Aeolis Mons, Gale crater, Mars. Sedimentology, 2018, 65, 993-1042.	1.6	143
11	Assessment of Aeolis Palus stratigraphic relationships based on bench-forming strata in the Kylie and the Kimberley regions of Gale crater, Mars. Icarus, 2018, 309, 84-104.	1.1	15
12	Shaler: <i>inÂsitu</i> analysis of a fluvial sedimentary deposit on Mars. Sedimentology, 2018, 65, 96-122.	1.6	59
13	Complex bedding geometry in the upper portion of Aeolis Mons, Gale crater, Mars. Icarus, 2018, 314, 246-264.	1.1	20
14	Morphologic Diversity of Martian Ripples: Implications for Largeâ€Ripple Formation. Geophysical Research Letters, 2018, 45, 10,229.	1.5	59
15	The Bagnold Dunes in Southern Summer: Active Sediment Transport on Mars Observed by the Curiosity Rover. Geophysical Research Letters, 2018, 45, 8853-8863.	1.5	50
16	Mars Science Laboratory Curiosity Rover Megaripple Crossings up to Sol 710 in Gale Crater. Journal of Field Robotics, 2017, 34, 495-518.	3.2	82
17	Centimeter to decimeter hollow concretions and voids in Gale Crater sediments, Mars. Icarus, 2017, 289, 144-156.	1.1	12
18	Sedimentary processes of the Bagnold Dunes: Implications for the eolian rock record of Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2544-2573.	1.5	83

#	Article	IF	Citations
19	Fluidized-sediment pipes in Gale crater, Mars, and possible Earth analogs. Geology, 2017, 45, 7-10.	2.0	18
20	Comparing orbiter and rover image-based mapping of an ancient sedimentary environment, Aeolis Palus, Gale crater, Mars. Icarus, 2016, 280, 3-21.	1.1	57
21	Large wind ripples on Mars: A record of atmospheric evolution. Science, 2016, 353, 55-58.	6.0	144
22	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	6.0	471
23	Building Sandbars in the Grand Canyon. Eos, 2015, 96, .	0.1	26
24	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
25	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
26	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
27	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
28	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
29	Autonomous bed-sediment imaging-systems for revealing temporal variability of grain size. Limnology and Oceanography: Methods, 2014, 12, 390-406.	1.0	12
30	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280
31	Assessing Grain-Size Correspondence Between Flow and Deposits of Controlled Floods In the Colorado River, U.S.A. Journal of Sedimentary Research, 2013, 83, 962-973.	0.8	13
32	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	6.0	327
33	Summary of the Third International Planetary Dunes Workshop: Remote Sensing and Image Analysis of Planetary Dunes, Flagstaff, Arizona, USA, June 12â€“15, 2012. Aeolian Research, 2013, 8, 29-38.	1.1	3
34	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
35	Origin and lateral migration of linear dunes in the Qaidam Basin of NW China revealed by dune sediments, internal structures, and optically stimulated luminescence ages, with implications for linear dunes on Titan: Discussion. Bulletin of the Geological Society of America, 2013, 125, 1943-1946.	1.6	11
36	MAHLI at the Rocknest sand shadow: Science and scienceâ€enabling activities. Journal of Geophysical Research E: Planets, 2013, 118, 2338-2360.	1.5	67

#	Article	IF	Citations
37	Advances in the simulation and automated measurement of wellâ€sorted granular material: 2. Direct measures of particle properties. Journal of Geophysical Research, 2012, 117, .	3.3	7
38	Currents, drag, and sediment transport induced by a tsunami. Journal of Geophysical Research, 2012, 117, .	3.3	30
39	Advances in the simulation and automated measurement of wellâ€sorted granular material: 1. Simulation. Journal of Geophysical Research, 2012, 117, .	3.3	5
40	A unifying model for planform straightness of ripples and dunes in air and water. Earth-Science Reviews, 2012, 113, 176-185.	4.0	63
41	Stratigraphic Architecture of Bedrock Reference Section, Victoria Crater, Meridiani Planum, Mars. , 2012, , 195-209.		16
42	A universal approximation of grain size from images of noncohesive sediment. Journal of Geophysical Research, 2010, 115, .	3.3	71
43	An approach for modeling sediment budgets in supplyâ€limited rivers. Water Resources Research, 2010, 46, .	1.7	22
44	Cobble cam: grainâ€size measurements of sand to boulder from digital photographs and autocorrelation analyses. Earth Surface Processes and Landforms, 2009, 34, 1811-1821.	1.2	71
45	Multiple origins of linear dunes on Earth and Titan. Nature Geoscience, 2009, 2, 653-658.	5.4	112
46	Sulfate-Rich Eolian and Wet Interdune Deposits, Erebus Crater, Meridiani Planum, Mars. Journal of Sedimentary Research, 2009, 79, 247-264.	0.8	57
47	A second look at western Sinai seif dunes and their lateral migration. Geomorphology, 2008, 93, 335-342.	1.1	47
48	Application of sedimentary-structure interpretation to geoarchaeological investigations in the Colorado River Corridor, Grand Canyon, Arizona, USA. Geomorphology, 2008, 101, 497-509.	1.1	23
49	Is there enough sand? Evaluating the fate of Grand Canyon sandbars. GSA Today, 2008, 18, 4.	1.1	27
50	Bed forms created by simulated waves and currents in a large flume. Journal of Geophysical Research, 2007, 112, .	3.3	26
51	Suspended-sediment rating curve response to urbanization and wildfire, Santa Ana River, California. Journal of Geophysical Research, 2007, 112, .	3.3	91
52	Coupled changes in sand grain size and sand transport driven by changes in the upstream supply of sand in the Colorado River: Relative importance of changes in bed-sand grain size and bed-sand area. Sedimentary Geology, 2007, 202, 538-561.	1.0	25
53	Underwater microscope for measuring spatial and temporal changes in bed-sediment grain size. Sedimentary Geology, 2007, 202, 402-408.	1.0	45
54	Field test comparison of an autocorrelation technique for determining grain size using a digital â€˜beachballâ€™ camera versus traditional methods. Sedimentary Geology, 2007, 201, 180-195.	1.0	56

#	Article	IF	Citations
55	Reconstructing depositional processes and history from reservoir stratigraphy: Englebright Lake, Yuba River, northern California. Journal of Geophysical Research, 2006, 111, .	3.3	27
56	Giant sand waves at the mouth of San Francisco Bay. Eos, 2006, 87, 285.	0.1	79
57	Ripple effect: Unforeseen applications of sand studies. Eos, 2006, 87, 293.	0.1	18
58	Regulation of sand transport in the Colorado River by changes in the surface grain size of eddy sandbars over multi-year timescales. Sedimentology, 2005, 52, 1133-1153.	1.6	15
59	Estimating accumulation rates and physical properties of sediment behind a dam: Englebright Lake, Yuba River, northern California. Water Resources Research, 2004, 40, .	1.7	86
60	A Simple Autocorrelation Algorithm for Determining Grain Size from Digital Images of Sediment. Journal of Sedimentary Research, 2004, 74, 160-165.	0.8	182
61	Recent sediment studies refute Glen Canyon Dam Hypothesis. Eos, 2002, 83, 273.	0.1	55
62	Quantifying the relative importance of flow regulation and grain size regulation of suspended sediment transport Î± and tracking changes in grain size of bed sediment Î². Water Resources Research, 2001, 37, 133-146.	1.7	63
63	Colorado River sediment transport: 1. Natural sediment supply limitation and the influence of Glen Canyon Dam. Water Resources Research, 2000, 36, 515-542.	1.7	219
64	Colorado River sediment transport: 2. Systematic Bed-elevation and grain-size effects of sand supply limitation. Water Resources Research, 2000, 36, 543-570.	1.7	66
65	Linkage between grain-size evolution and sediment depletion during Colorado River floods. Geophysical Monograph Series, 1999, , 71-98.	0.1	22
66	Relation of inversely graded deposits to suspended-sediment grain-size evolution during the 1996 flood experiment in Grand Canyon. Geology, 1998, 26, 99.	2.0	64
67	Using nonlinear forecasting to learn the magnitude and phasing of time-varying sediment suspension in the surf zone. Journal of Geophysical Research, 1996, 101, 14283-14296.	3.3	26
68	Regulated streamflow, fine-grained deposits, and effective discharge in canyons with abundant debris fans. Geophysical Monograph Series, 1995, , 177-195.	0.1	69
69	Nonperiodic Eddy Pulsations. Water Resources Research, 1995, 31, 1595-1605.	1.7	20
70	Forecasting Techniques, Underlying Physics, and Applications. , 1995, , 85-120.		5
71	Flume simulation of recirculating flow and sedimentation. Water Resources Research, 1993, 29, 2925-2939.	1.7	66
72	Use of forecasting signatures to help distinguish periodicity, randomness, and chaos in ripples and other spatial patterns. Chaos, 1992, 2, 525-535.	1.0	52

#	Article	IF	Citations
73	Flume experiments on the alignment of transverse, oblique, and longitudinal dunes in directionally varying flows. Sedimentology, 1990, 37, 673-684.	1.6	145
74	Lateral migration of linear dunes in the Strzelecki desert, Australia. Earth Surface Processes and Landforms, 1990, 15, 1-14.	1.2	44
75	Bed roughness produced by saltating sediment. Journal of Geophysical Research, 1989, 94, 5011-5016.	3.3	121
76	Bedform Alignment in Directionally Varying Flows. Science, 1987, 237, 276-278.	6.0	256
77	Formation of Scalloped Cross-Bedding Without Unsteady Flows. Journal of Sedimentary Research, 1987, Vol. 57, .	0.8	4
78	Why deposits of longitudinal dunes are rarely recognized in the geologic record. Sedimentology, 1985, 32, 147-157.	1.6	131
79	Factors determining desert dune type. Nature, 1984, 309, 91-92.	13.7	21
80	Interpreting Cyclic Crossbedding, with An Example from the Navajo Sandstone. Developments in Sedimentology, 1983, , 429-454.	0.5	46
81	Bedform climbing in theory and nature. Sedimentology, 1982, 29, 121-138.	1.6	238
82	Single and superimposed bedforms: a synthesis of San Francisco Bay and flume observations. Sedimentary Geology, 1980, 26, 207-231.	1.0	215
83	Intermittently emergent shelf carbonates: an example from the Cambro-Ordovician of eastern New York State. Sedimentary Geology, 1977, 19, 81-106.	1.0	25