Marco Marani

List of Publications by Year
in descending order

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124 papers	6,937 citations	50276 46 h-index	66911 78 g-index
157 all docs	157 docs citations	157 times ranked	5211 citing authors

#	Article	IF	Citations
1	Tidal regime, salinity and salt marsh plant zonation. Estuarine, Coastal and Shelf Science, 2005, 62, 119-130.	2.1	374
2	Mapping salt-marsh vegetation by multispectral and hyperspectral remote sensing. Remote Sensing of Environment, 2006, 105, 54-67.	11.0	280
3	Landscape evolution in tidal embayments: Modeling the interplay of erosion, sedimentation, and vegetation dynamics. Journal of Geophysical Research, 2007, 112, .	3.3	247
4	Intensity and frequency of extreme novel epidemics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	225
5	Biologically-controlled multiple equilibria of tidal landforms and the fate of the Venice lagoon. Geophysical Research Letters, 2007, 34, .	4.0	199
6	Understanding and predicting wave erosion of marsh edges. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	176
7	Remote sensing retrieval of suspended sediment concentration in shallow waters. Remote Sensing of Environment, 2011, 115, 44-54.	11.0	176
8	Tidal networks: 2. Watershed delineation and comparative network morphology. Water Resources Research, 1999, 35, 3905-3917.	4.2	171
9	Vegetation engineers marsh morphology through multiple competing stable states. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3259-3263.	7.1	165
10	On the drainage density of tidal networks. Water Resources Research, 2003, 39, .	4.2	159
11	The importance of being coupled: Stable states and catastrophic shifts in tidal biomorphodynamics. Journal of Geophysical Research, 2010, 115, .	3.3	150
12	Tidal networks: 1. Automatic network extraction and preliminary scaling features from digital terrain maps. Water Resources Research, 1999, 35, 3891-3904.	4.2	149
13	Geomorphological origin of recession curves. Geophysical Research Letters, 2010, 37, .	4.0	148
14	Tidal network ontogeny: Channel initiation and early development. Journal of Geophysical Research, 2005, 110, .	3.3	146
15	Tidal networks: 3. Landscape-forming discharges and studies in empirical geomorphic relationships. Water Resources Research, 1999, 35, 3919-3929.	4.2	133
16	Tidal meanders. Water Resources Research, 2002, 38, 7-1-7-14.	4.2	130
17	On the impact of rainfall patterns on the hydrologic response. Water Resources Research, 2008, 44, .	4.2	116
18	Subsurface flow and vegetation patterns in tidal environments. Water Resources Research, 2004, 40, .	4.2	110

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19	Forecasting the response of Earth's surface to future climatic and land use changes: A review of methods and research needs. Earth's Future, 2015, 3, 220-251.	6.3	98
20	Transport at basin scales: 1. Theoretical framework. Hydrology and Earth System Sciences, 2006, 10, 19-29.	4.9	97
21	Separation of Ground and Low Vegetation Signatures in LiDAR Measurements of Salt-Marsh Environments. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2014-2023.	6.3	97
22	Spontaneous tidal network formation within a constructed salt marsh: Observations and morphodynamic modelling. Geomorphology, 2007, 91, 186-197.	2.6	95
23	Spatial organization and ecohydrological interactions in oxygen-limited vegetation ecosystems. Water Resources Research, 2006, 42, .	4.2	92
24	Hyperspectral remote sensing of salt marsh vegetation, morphology and soil topography. Physics and Chemistry of the Earth, 2003, 28, 15-25.	2.9	91
25	On the tidal prismâ€“channel area relations. Journal of Geophysical Research, 2010, 115, .	3.3	91
26	A metastatistical approach to rainfall extremes. Advances in Water Resources, 2015, 79, 121-126.	3.8	91
27	On the emergence of rainfall extremes from ordinary events. Geophysical Research Letters, 2016, 43, 8076-8082.	4.0	89
28	Reading the signatures of biologicâ€“geomorphic feedbacks in salt-marsh landscapes. Advances in Water Resources, 2016, 93, 265-275.	3.8	81
29	Spatial variation of salt-marsh organic and inorganic deposition and organic carbon accumulation: Inferences from the Venice lagoon, Italy. Advances in Water Resources, 2016, 93, 276-287.	3.8	80
30	Tidal landforms, patterns of halophytic vegetation and the fate of the lagoon of Venice. Journal of Marine Systems, 2004, 51, 191-210.	2.1	79
31	Spatial dynamics of microphytobenthos determined by PAM fluorescence. Estuarine, Coastal and Shelf Science, 2005, 65, 30-42.	2.1	78
32	Expression of Smac/DIABLO in ovarian carcinoma cells induces apoptosis via a caspase-9-mediated pathway. Experimental Cell Research, 2003, 286, 186-198.	2.6	68
33	Field migration rates of tidal meanders recapitulate fluvial morphodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1463-1468.	7.1	66
34	Mapping mixed vegetation communities in salt marshes using airborne spectral data. Remote Sensing of Environment, 2007, 107, 559-570.	11.0	63
35	Retrieval of small-relief marsh morphology from Terrestrial Laser Scanner, optimal spatial filtering, and laser return intensity. Geomorphology, 2009, 113, 12-20.	2.6	63
36	Self-organized river basin landscapes: Fractal and multifractal characteristics. Water Resources Research, 1994, 30, 3531-3539.	4.2	62

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37	Flow, Sedimentation, and Biomass Production on a Vegetated Salt Marsh in South Carolina: Toward a Predictive Model of Marsh Morphologic and Ecologic Evolution. Coastal and Estuarine Studies, 0, , 165-188.	0.4	60
38	Tree root systems competing for soil moisture in a 3D soilâ€“plant model. Advances in Water Resources, 2014, 66, 32-42.	3.8	59
39	Analysis, synthesis and modelling of high-resolution observations of salt-marsh eco-geomorphological patterns in the Venice lagoon. Estuarine, Coastal and Shelf Science, 2006, 69, 414-426.	2.1	58
40	â€˜Universalâ€™ recession curves and their geomorphological interpretation. Advances in Water Resources, 2014, 65, 34-42.	3.8	56
41	Sand bars in tidal channels Part 2. Tidal meanders. Journal of Fluid Mechanics, 2002, 451, 203-238.	3.4	54
42	Biogeomorphology of tidal landforms: physical and biological processes shaping the tidal landscape. Ecohydrology, 2012, 5, 550-562.	2.4	54
43	Climatic and landscape controls on effective discharge. Geophysical Research Letters, 2015, 42, 8441-8447.	4.0	53
44	Spatial response of coastal marshes to increased atmospheric CO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15580-15584.	7.1	52
45	Geomorphic controls on regional base flow. Water Resources Research, 2001, 37, 2619-2630.	4.2	50
46	On the correlation structure of continuous and discrete point rainfall. Water Resources Research, 2003, 39, .	4.2	50
47	Sediment dynamics in shallow tidal basins: In situ observations, satellite retrievals, and numerical modeling in the Venice Lagoon. Journal of Geophysical Research F: Earth Surface, 2014, 119, 802-815.	2.8	50
48	A stochastic model of nitrate transport and cycling at basin scale. Water Resources Research, 2006, 42, .	4.2	48
49	On space-time scaling of cumulated rainfall fields. Water Resources Research, 1998, 34, 3461-3469.	4.2	43
50	The secret gardener: vegetation and the emergence of biogeomorphic patterns in tidal environments. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120367.	3.4	41
51	Marsh resilience to sea-level rise reduced by storm-surge barriers in the Venice Lagoon. Nature Geoscience, 2021, 14, 906-911.	12.9	41
52	Root controls on water redistribution and carbon uptake in the soilâ€“plant system under current and future climate. Advances in Water Resources, 2013, 60, 110-120.	3.8	40
53	Stationary self-organized fractal structures in an open, dissipative electrical system. Journal of Physics A, 1998, 31, L337-L343.	1.6	39
54	Soilâ€“plantâ€“atmosphere conditions regulating convective cloud formation above southeastern US pine plantations. Global Change Biology, 2016, 22, 2238-2254.	9.5	39

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55	Transport at basin scales: 2. Applications. Hydrology and Earth System Sciences, 2006, 10, 31-48.	4.9	38
56	Recent changes in rainfall characteristics and their influence on thresholds for debris flow triggering in the Dolomitic area of Cortina d'Ampezzo, north-eastern Italian Alps. Natural Hazards and Earth System Sciences, 2010, 10, 571-580.	3.6	38
57	A geomorphic study of lagoonal landforms. Water Resources Research, 2005, 41, .	4.2	37
58	Geomorphological width functions and the random cascade. Geophysical Research Letters, 1994, 21, 2123-2126.	4.0	36
59	Pro-caspase-3 overexpression sensitises ovarian cancer cells to proteasome inhibitors. Cell Death and Differentiation, 2001, 8, 256-264.	11.2	36
60	On the Oâ€™Brienâ€“Jarrettâ€“Marchi law. Rendiconti Lincei, 2009, 20, 225-236.	2.2	36
61	Saturated area dynamics and streamflow generation from coupled surfaceâ€“subsurface simulations and field observations. Advances in Water Resources, 2013, 59, 196-208.	3.8	36
62	Deforestation Due to Artisanal and Small-Scale Gold Mining Exacerbates Soil and Mercury Mobilization in Madre de Dios, Peru. Environmental Science & Technology, 2020, 54, 286-296.	10.0	36
63	Non-power-law-scale properties of rainfall in space and time. Water Resources Research, 2005, 41, .	4.2	35
64	Metastatistical Extreme Value Distribution applied to floods across the continental United States. Advances in Water Resources, 2020, 136, 103498.	3.8	35
65	Downscaling of Rainfall Extremes From Satellite Observations. Water Resources Research, 2019, 55, 156-174.	4.2	34
66	Leaf conductance and carbon gain under salt-stressed conditions. Journal of Geophysical Research, 2011, 116, .	3.3	33
67	Long-term oscillations in rainfall extremes in a 268 year daily time series. Water Resources Research, 2015, 51, 639-647.	4.2	33
68	Coupled topographic and vegetation patterns in coastal dunes: Remote sensing observations and ecomorphodynamic implications. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 119-130.	3.0	32
69	Competition for light and water in a coupled soil-plant system. Advances in Water Resources, 2017, 108, 216-230.	3.8	31
70	Sea level rise, hydrologic runoff, and the flooding of Venice. Water Resources Research, 2008, 44, .	4.2	30
71	Tidal meander migration and dynamics: A case study from the Venice Lagoon. Marine and Petroleum Geology, 2017, 87, 80-90.	3.3	29
72	Estimation of Daily Rainfall Extremes Through the Metastatistical Extreme Value Distribution: Uncertainty Minimization and Implications for Trend Detection. Water Resources Research, 2020, 56, e2019WR026535.	4.2	29

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73	Analyses Through the Metastatistical Extreme Value Distribution Identify Contributions of Tropical Cyclones to Rainfall Extremes in the Eastern United States. Geophysical Research Letters, 2020, 47, e2020GL087238.	4.0	29
74	Plantâ€soil interactions in salt marsh environments: Experimental evidence from electrical resistivity tomography in the Venice Lagoon. Geophysical Research Letters, 2014, 41, 6160-6166.	4.0	28
75	Extreme value metastatistical analysis of remotely sensed rainfall in ungauged areas: Spatial downscaling and error modelling. Advances in Water Resources, 2020, 135, 103483.	3.8	28
76	Herpes simplex virus thymidine kinase/ganciclovirâ€“induced cell death is enhanced by co-expression of caspase-3 in ovarian carcinoma cells. Cancer Gene Therapy, 2001, 8, 308-319.	4.6	27
77	Salt marsh vegetation radiometry. Remote Sensing of Environment, 2002, 80, 473-482.	11.0	26
78	Downscaling rainfall temporal variability. Water Resources Research, 2007, 43, .	4.2	26
79	Inferences from catchment-scale tracer circulation experiments. Journal of Hydrology, 2009, 369, 368-380.	5.4	26
80	Control of wind-wave power on morphological shape of salt marsh margins. Water Science and Engineering, 2020, 13, 45-56.	3.2	26
81	Forcing, intermittency, and land surface hydrologic partitioning. Water Resources Research, 1997, 33, 167-175.	4.2	23
82	The influence of water table depth and the free atmospheric state on convective rainfall predisposition. Water Resources Research, 2015, 51, 2283-2297.	4.2	23
83	Loss of geomorphic diversity in shallow tidal embayments promoted by storm-surge barriers. Science Advances, 2022, 8, eabm8446.	10.3	23
84	Observation and modeling of catchmentâ€scale solute transport in the hydrologic response: A tracer study. Water Resources Research, 2008, 44, .	4.2	21
85	On the morphodynamic stability of intertidal environments and the role of vegetation. Advances in Water Resources, 2016, 93, 303-314.	3.8	21
86	Environmental forcing and density-dependent controls of Culex pipiens abundance in a temperate climate (Northeastern Italy). Ecological Modelling, 2014, 272, 301-310.	2.5	20
87	Morphodynamic evolution and sedimentology of a microtidal meander bend of the Venice Lagoon (Italy). Marine and Petroleum Geology, 2018, 96, 391-404.	3.3	20
88	Water and sediment temperature dynamics in shallow tidal environments: The role of the heat flux at the sediment-water interface. Advances in Water Resources, 2018, 113, 126-140.	3.8	18
89	Evaluation of sediment properties using wind and turbidity observations in the shallow tidal areas of the Venice Lagoon. Journal of Geophysical Research F: Earth Surface, 2014, 119, 1604-1616.	2.8	17
90	Delayâ€induced rebounds in CO₂ emissions and critical timeâ€scales to meet global warming targets. Earth's Future, 2016, 4, 636-643.	6.3	17

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91	Flood coincidence analysis of Poyang Lake and Yangtze River: risk and influencing factors. Stochastic Environmental Research and Risk Assessment, 2018, 32, 879-891.	4.0	16
92	Extreme Atlantic Hurricane Probability of Occurrence Through the Metastatistical Extreme Value Distribution. Geophysical Research Letters, 2020, 47, 2019GL086138.	4.0	16
93	Non-Neutral Vegetation Dynamics. PLoS ONE, 2006, 1, e78.	2.5	16
94	Salt-Marsh Vegetation and Morphology: Basic Physiology, Modelling and Remote Sensing Observations. Coastal and Estuarine Studies, 2013, , 5-25.	0.4	15
95	The Spatial Variability of Organic Matter and Decomposition Processes at the Marsh Scale. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3713-3727.	3.0	15
96	Point estimate methods based on Taylor Series Expansion â€“ The perturbance moments method â€“ A more coherent derivation of the second order statistical moment. Applied Mathematical Modelling, 2012, 36, 5445-5454.	4.2	14
97	Belowground Production and Decomposition Along a Tidal Gradient in a Virginia Salt Marsh. Coastal and Estuarine Studies, 2013, , 47-73.	0.4	14
98	Evaluation of MEVD-based precipitation frequency analyses from quasi-global precipitation datasets against dense rain gauge networks. Journal of Hydrology, 2020, 590, 125564.	5.4	14
99	Hyperspectral and Multispectral Retrieval of Suspended Sediment in Shallow Coastal Waters Using Semi-Analytical and Empirical Methods. Remote Sensing, 2017, 9, 393.	4.0	12
100	Reply to comment by L. R. Gardner on â€œSpatial organization and ecohydrological interactions in oxygenâ€limited vegetation ecosystemsâ€• Water Resources Research, 2009, 45, .	4.2	11
101	Storm surge frequency reduction in Venice under climate change. Climatic Change, 2012, 113, 1065-1079.	3.6	11
102	Understanding the Ecoâ€Geomorphologic Feedback of Coastal Marsh Under Sea Level Rise: Vegetation Dynamic Representations, Processes Interaction, and Parametric Sensitivity. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2020JF005729.	2.8	11
103	Extreme-coastal-water-level estimation and projection: a comparison of statistical methods. Natural Hazards and Earth System Sciences, 2022, 22, 1109-1128.	3.6	10
104	Tidal Networks: form and Function. Coastal and Estuarine Studies, 0, , 75-91.	0.4	9
105	Hurricanes and tropical storms: A necessary evil to ensure water supply?. Hydrological Processes, 2017, 31, 4414-4428.	2.6	9
106	Watershed and ocean controls of salt marsh extent and resilience. Earth Surface Processes and Landforms, 2020, 45, 1456-1468.	2.5	9
107	Astronomic link to anomalously high mean sea level in the northern Adriatic Sea. Estuarine, Coastal and Shelf Science, 2021, 257, 107418.	2.1	9
108	ON THE INFLUENCE OF GLOBAL WARMING ON ATLANTIC HURRICANE FREQUENCY. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3, 527-532.	0.2	8

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109	The Detection of Weekly Preferential Occurrences with an Application to Rainfall. Journal of Climate, 2010, 23, 2379-2387.	3.2	7
110	The Temporal Spectrum of Adult Mosquito Population Fluctuations: Conceptual and Modeling Implications. PLoS ONE, 2014, 9, e114301.	2.5	6
111	The predictability of mosquito abundance from daily to monthly timescales. Ecological Applications, 2016, 26, 2611-2622.	3.8	6
112	Assessing the Fractional Abundance of Highly Mixed Salt-Marsh Vegetation Using Random Forest Soft Classification. Remote Sensing, 2020, 12, 3224.	4.0	6
113	Parametrizations of global thermal emissions for simple climate models. Climate Dynamics, 1999, 15, 145-152.	3.8	5
114	A Minimalist Model of Salt-Marsh Vegetation Dynamics Driven by Species Competition and Dispersal. Frontiers in Marine Science, 2022, 9, .	2.5	5
115	Patterns in tidal environments: salt-marsh channel networks and vegetation. , 0, , .		4
116	Reply to comment by Alicia M. Wilson and Leonard Robert Gardner on â€œSubsurface flow and vegetation patterns in tidal environmentsâ€• Water Resources Research, 2005, 41, .	4.2	4
117	A Perturbance Moment Point Estimate Method for uncertainty analysis of the hydrologic response. Advances in Water Resources, 2012, 40, 46-53.	3.8	4
118	Monitoring and Modeling Farmland Productivity Along the Venice Coastland, Italy. Procedia Environmental Sciences, 2013, 19, 361-368.	1.4	3
119	Salt-Marsh Ecogeomorphological Dynamics and Hydrodynamic Circulation. , 2019, , 189-220.		3
120	Remote Sensing of Tidal Networks and Their Relation to Vegetation. Coastal and Estuarine Studies, 0, , 27-46.	0.4	2
121	Reply to comment on â€œStorm surge frequency reduction in Venice under climate changeâ€•by G. Jordà€, D. Gomis & M. Marcos. Climatic Change, 2012, 113, 1089-1095.	3.6	1
122	Multiple equilibria in tidal eco-geomorphology. , 2007, , 263-269.		1
123	The Impact of Air Pollution and Aeroallergens Levels on Upper Airway Acute Diseases at Urban Scale. International Journal of Environmental Research, 2022, 16, .	2.3	1
124	River and Tidal Networks. , 2001, , 191-211.		0