Andrea D'Alpaos

List of Publications by Year
in descending order

93 papers	5,364 citations	101543 36 h-index	88630 70 g-index

121 all docs	121 docs citations	121 times ranked	2939 citing authors

#	Article	IF	Citations
1	Limits on the adaptability of coastal marshes to rising sea level. Geophysical Research Letters, 2010, 37, .	4.0	613
2	Numerical models of salt marsh evolution: Ecological, geomorphic, and climatic factors. Reviews of Geophysics, 2012, 50, .	23.0	511
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	How does vegetation affect sedimentation on tidal marshes? Investigating particle capture and hydrodynamic controls on biologically mediated sedimentation. Journal of Geophysical Research, 2010, 115, .	3.3	230
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	Spatially integrative metrics reveal hidden vulnerability of microtidal salt marshes. Nature Communications, 2017, 8, 14156.	12.8	167
8	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
9	On the drainage density of tidal networks. Water Resources Research, 2003, 39, .	4.2	159
10	The importance of being coupled: Stable states and catastrophic shifts in tidal biomorphodynamics. Journal of Geophysical Research, 2010, 115, .	3.3	150
11	Tidal network ontogeny: Channel initiation and early development. Journal of Geophysical Research, 2005, 110, .	3.3	146
12	Modeling the influence of hydroperiod and vegetation on the cross-sectional formation of tidal channels. Estuarine, Coastal and Shelf Science, 2006, 69, 311-324.	2.1	143
13	Is â€œMorphodynamic Equilibriumâ€•an oxymoron?. Earth-Science Reviews, 2017, 165, 257-267.	9.1	112
14	Spontaneous tidal network formation within a constructed salt marsh: Observations and morphodynamic modelling. Geomorphology, 2007, 91, 186-197.	2.6	95
15	On the tidal prismâ€“channel area relations. Journal of Geophysical Research, 2010, 115, .	3.3	91
16	Experimental analysis of tidal network growth and development. Continental Shelf Research, 2010, 30, 950-962.	1.8	83
17	Modeling wind waves and tidal flows in shallow micro-tidal basins. Estuarine, Coastal and Shelf Science, 2011, 92, 263-276.	2.1	81
18	Reading the signatures of biologicâ€“geomorphic feedbacks in salt-marsh landscapes. Advances in Water Resources, 2016, 93, 265-275.	3.8	81

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19	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
20	Dynamic response of marshes to perturbations in suspended sediment concentrations and rates of relative sea level rise. Journal of Geophysical Research, 2011, 116, .	3.3	77
21	The mutual influence of biotic and abiotic components on the long-term ecomorphodynamic evolution of salt-marsh ecosystems. Geomorphology, 2011, 126, 269-278.	2.6	75
22	Global-change effects on early-stage decomposition processes in tidal wetlands â€“ implications from a global survey using standardized litter. Biogeosciences, 2018, 15, 3189-3202.	3.3	73
23	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
24	Mathematical modeling of flooding due to river bank failure. Advances in Water Resources, 2013, 59, 82-94.	3.8	64
25	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
26	Biogeomorphology of tidal landforms: physical and biological processes shaping the tidal landscape. Ecohydrology, 2012, 5, 550-562.	2.4	54
27	Changes in the windâ€wave field and related saltâ€marsh lateral erosion: inferences from the evolution of the Venice Lagoon in the last four centuries. Earth Surface Processes and Landforms, 2019, 44, 1633-1646.	2.5	52
28	A comparative study of physical and numerical modeling of tidal network ontogeny. Journal of Geophysical Research F: Earth Surface, 2014, 119, 892-912.	2.8	51
29	On funneling of tidal channels. Journal of Geophysical Research F: Earth Surface, 2015, 120, 433-452.	2.8	51
30	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
31	Combined effects of tides, evaporation and rainfall on the soil conditions in an intertidal creek-marsh system. Advances in Water Resources, 2017, 103, 1-15.	3.8	50
32	Signatures of sea level changes on tidal geomorphology: Experiments on network incision and retreat. Geophysical Research Letters, 2012, 39, .	4.0	49
33	An ecogeomorphic model of tidal channel initiation and elaboration in progressive marsh accretional contexts. Journal of Geophysical Research F: Earth Surface, 2015, 120, 1040-1064.	2.8	48
34	Statistical mechanics of wind waveâ€induced erosion in shallow tidal basins: Inferences from the Venice Lagoon. Geophysical Research Letters, 2013, 40, 3402-3407.	4.0	46
35	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
36	Remotely-sensed planform morphologies reveal fluvial and tidal nature of meandering channels. Scientific Reports, 2020, 10, 54.	3.3	41

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37	Marsh resilience to sea-level rise reduced by storm-surge barriers in the Venice Lagoon. Nature Geoscience, 2021, 14, 906-911.	12.9	41
38	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
39	A geomorphic study of lagoonal landforms. Water Resources Research, 2005, 41, .	4.2	37
40	On the Oâ€™Brienâ€“Jarrettâ€“Marchi law. Rendiconti Lincei, 2009, 20, 225-236.	2.2	36
41	Aggradation and lateral migration shaping geometry of a tidal point bar: An example from salt marshes of the Northern Venice Lagoon (Italy). Sedimentary Geology, 2016, 343, 141-155.	2.1	36
42	Statistical characterization of spatiotemporal sediment dynamics in the Venice lagoon. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1049-1064.	2.8	32
43	Anthropogenic Modifications Can Significantly Influence the Local Mean Sea Level and Affect the Survival of Salt Marshes in Shallow Tidal Systems. Journal of Geophysical Research F: Earth Surface, 2018, 123, 996-1012.	2.8	30
44	Tidal meander migration and dynamics: A case study from the Venice Lagoon. Marine and Petroleum Geology, 2017, 87, 80-90.	3.3	29
45	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
46	Morphodynamic evolution and stratal architecture of translating tidal point bars: Inferences from the northern Venice Lagoon (Italy). Sedimentology, 2018, 65, 1354-1377.	3.1	28
47	Analysis of the drainage density of experimental and modelled tidal networks. Earth Surface Dynamics, 2014, 2, 105-116.	2.4	26
48	Control of wind-wave power on morphological shape of salt marsh margins. Water Science and Engineering, 2020, 13, 45-56.	3.2	26
49	Assessing the morphodynamic response of human-altered tidal embayments. Geomorphology, 2018, 320, 127-141.	2.6	24
50	Geophysical investigations unravel the vestiges of ancient meandering channels and their dynamics in tidal landscapes. Scientific Reports, 2018, 8, 1708.	3.3	23
51	Loss of geomorphic diversity in shallow tidal embayments promoted by storm-surge barriers. Science Advances, 2022, 8, eabm8446.	10.3	23
52	Threeâ€Dimensional Flow Structures and Morphodynamic Evolution of Microtidal Meandering Channels. Water Resources Research, 2020, 56, e2020WR027822.	4.2	22
53	Tidal Flow Asymmetry and Discharge of Lateral Tributaries Drive the Evolution of a Microtidal Meander in the Venice Lagoon (Italy). Journal of Geophysical Research F: Earth Surface, 2019, 124, 3043-3066.	2.8	21
54	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

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55	Point-bar brink and channel thalweg trajectories depicting interaction between vertical and lateral shifts of microtidal channels in the Venice Lagoon (Italy). Geomorphology, 2019, 342, 37-50.	2.6	19
56	A process-based model for the definition of hydrological alert systems in landslide risk mitigation. Natural Hazards and Earth System Sciences, 2012, 12, 3343-3357.	3.6	17
57	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
58	An approximate solution to the flow field on vegetated intertidal platforms: Applicability and limitations. Journal of Geophysical Research F: Earth Surface, 2014, 119, 1682-1703.	2.8	15
59	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
60	On the Morphodynamic Equilibrium of a Short Tidal Channel. Journal of Geophysical Research F: Earth Surface, 2019, 124, 639-665.	2.8	15
61	Assessing the relative contributions of the flood tide and the ebb tide to tidal channel network dynamics. Earth Surface Processes and Landforms, 2020, 45, 237-250.	2.5	15
62	Channel mobility drives a diverse stratigraphic architecture in the dryland Mojave River (California,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.5	15
63	The Valuation of Ecosystem Services in the Venice Lagoon: A Multicriteria Approach. Sustainability, 2021, 13, 9485.	3.2	15
64	Ecogeomorphological feedbacks of water fluxes, sediment transport and vegetation dynamics in rivers and estuaries. Advances in Water Resources, 2016, 93, 151-155.	3.8	14
65	Intertwined ecoâ€morphodynamic evolution of salt marshes and emerging tidal channel networks. Water Resources Research, 0, , .	4.2	14
66	Tidal currents and wind waves controlling sediment distribution in a subtidal point bar of the Venice Lagoon (Italy). Sedimentology, 2019, 66, 2926-2949.	3.1	13
67	Piracy-controlled geometry of tide-dominated point bars: Combined evidence from ancient sedimentary successions and modern channel networks. Geomorphology, 2020, 370, 107402.	2.6	12
68	Effects of Vegetation, Sediment Supply and Sea Level Rise on the Morphodynamic Evolution of Tidal Channels. Water Resources Research, 2021, 57, e2020WR028577.	4.2	12
69	A simplified model for frictionally dominated tidal flows. Geophysical Research Letters, 2012, 39, .	4.0	11
70	Geophysical and Sedimentological Investigations Integrate Remote-Sensing Data to Depict Geometry of Fluvial Sedimentary Bodies: An Example from Holocene Point-Bar Deposits of the Venetian Plain (Italy). Remote Sensing, 2020, 12, 2568.	4.0	11
71	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
72	Detecting the Delayed Signatures of Changing Sediment Supply in Salt-Marsh Landscapes: The Case of the Venice Lagoon (Italy). Frontiers in Marine Science, 2021, 8, .	2.5	10

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73	Natural and Human-Induced Flow and Sediment Transport within Tidal Creek Networks Influenced by Ocean-Bay Tides. Water (Switzerland), 2019, 11, 1493.	2.7	9
74	Watershed and ocean controls of salt marsh extent and resilience. Earth Surface Processes and Landforms, 2020, 45, 1456-1468.	2.5	9
75	Impact of genesis and abandonment processes of a fluvial meander on geometry and grain-size distribution of the associated point bar (Venetian Plain, Italy). Marine and Petroleum Geology, 2021, 127, 104951.	3.3	9
76	Astronomic link to anomalously high mean sea level in the northern Adriatic Sea. Estuarine, Coastal and Shelf Science, 2021, 257, 107418.	2.1	9
77	Latest Holocene depositional history of the southern Venice Lagoon, Italy. Holocene, 2017, 27, 1731-1744.	1.7	8
78	Morphoâ€sedimentary evolution of a microtidal meandering channel driven by 130â€‰years of natural and anthropogenic modifications of the Venice Lagoon (Italy). Earth Surface Processes and Landforms, 2022, 47, 2580-2596.	2.5	8
79	A New Method for Automatic Definition of Tidal Creek Networks. Journal of Coastal Research, 2018, 85, 156-160.	0.3	7
80	Different coastal marsh sites reflect similar topographic conditions under which bare patches and vegetation recovery occur. Earth Surface Dynamics, 2021, 9, 71-88.	2.4	7
81	Salt Marsh Hydrodynamics. , 2021, , 53-81.		7
82	Assessing the Fractional Abundance of Highly Mixed Salt-Marsh Vegetation Using Random Forest Soft Classification. Remote Sensing, 2020, 12, 3224.	4.0	6
83	An integrated approach to determine threeâ€dimensional accretion geometries of tidal point bars: Examples from the Venice Lagoon (Italy). Sedimentology, 2021, 68, 449-476.	3.1	6
84	Sedimentology of a hypertidal point bar (Montâ€Saintâ€Michel Bay, northâ€western France) revealed by combining lidar timeâ€series and sedimentary core data. Sedimentology, 2022, 69, 1179-1208.	3.1	6
85	Variation in the Occurrence of Rainfall Events Triggering Landslides. , 2013, , 131-138.		6
86	A Minimalist Model of Salt-Marsh Vegetation Dynamics Driven by Species Competition and Dispersal. Frontiers in Marine Science, 2022, 9, .	2.5	5
87	Patterns in tidal environments: salt-marsh channel networks and vegetation. , 0, , .		4
88	Salt-Marsh Ecogeomorphological Dynamics and Hydrodynamic Circulation. , 2019, , 189-220.		3
89	From electromagnetic to sediment textural maps: an integrated approach to unravel the intra-point-bar variability of sediment properties. Journal of the Geological Society, 0, , jgs2021-156.	2.1	3
90	Characterizing marshland compressibility by an in-situ loading test: design and set-up of an experiment in the Venice Lagoon. Proceedings of the International Association of Hydrological Sciences, 0, 382, 345-351.	1.0	2

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91	Ontogeny of a subtidal point bar in the microtidal Venice Lagoon (Italy) revealed by threeâ€dimensional architectural analyses. Sedimentology, 0, , .	3.1	2
92	River, Coastal and Estuarine Morphodynamics Selected papers from the 10th anniversary of the RCEM Symposium. Earth Surface Processes and Landforms, 2020, 45, 1311-1314.	2.5	0
93	Modelling Tidal Environments. , 2021, , .		0