

Luca Carniello

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,629
citations

201385

27
h-index

189595

50
g-index

65
all docs

65
docs citations

65
times ranked

1675
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical bifurcation of shallow microtidal landforms in tidal flats and salt marshes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8337-8341.	3.3	222
2	Biologically-controlled multiple equilibria of tidal landforms and the fate of the Venice lagoon. Geophysical Research Letters, 2007, 34, .	1.5	199
3	Spatially integrative metrics reveal hidden vulnerability of microtidal salt marshes. Nature Communications, 2017, 8, 14156.	5.8	167
4	The importance of being coupled: Stable states and catastrophic shifts in tidal biomorphodynamics. Journal of Geophysical Research, 2010, 115, .	3.3	150
5	Morphological evolution of the Venice lagoon: Evidence from the past and trend for the future. Journal of Geophysical Research, 2009, 114, .	3.3	127
6	A combined wind wave-tidal model for the Venice lagoon, Italy. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	113
7	Influence of storm surges and sea level on shallow tidal basin erosive processes. Journal of Geophysical Research, 2010, 115, .	3.3	108
8	Modeling sand-mud transport induced by tidal currents and wind waves in shallow microtidal basins: Application to the Venice Lagoon (Italy). Estuarine, Coastal and Shelf Science, 2012, 102-103, 105-115.	0.9	96
9	Wind waves in shallow microtidal basins and the dynamic equilibrium of tidal flats. Journal of Geophysical Research, 2007, 112, .	3.3	86
10	Experimental analysis of tidal network growth and development. Continental Shelf Research, 2010, 30, 950-962.	0.9	83
11	Modeling wind waves and tidal flows in shallow micro-tidal basins. Estuarine, Coastal and Shelf Science, 2011, 92, 263-276.	0.9	81
12	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
13	Self-organization of shallow basins in tidal flats and salt marshes. Journal of Geophysical Research, 2007, 112, .	3.3	71
14	Mathematical modeling of flooding due to river bank failure. Advances in Water Resources, 2013, 59, 82-94.	1.7	64
15	Changes in the wind-wave field and related salt-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.	1.2	52
16	A comparative study of physical and numerical modeling of tidal network ontogeny. Journal of Geophysical Research F: Earth Surface, 2014, 119, 892-912.	1.0	51
17	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.	1.0	50
18	Signatures of sea level changes on tidal geomorphology: Experiments on network incision and retreat. Geophysical Research Letters, 2012, 39, .	1.5	49

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19	An ecogeomorphic model of tidal channel initiation and elaboration in progressive marsh accretional contexts. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 1040-1064.	1.0	48
20	Statistical mechanics of wind wave-induced erosion in shallow tidal basins: Inferences from the Venice Lagoon. <i>Geophysical Research Letters</i> , 2013, 40, 3402-3407.	1.5	46
21	Integrated mathematical modeling of hydrological and hydrodynamic response to rainfall events in rural lowland catchments. <i>Water Resources Research</i> , 2014, 50, 5941-5957.	1.7	41
22	Marsh resilience to sea-level rise reduced by storm-surge barriers in the Venice Lagoon. <i>Nature Geoscience</i> , 2021, 14, 906-911.	5.4	41
23	Sediment and vegetation spatial dynamics facing sea-level rise in microtidal salt marshes: Insights from an ecogeomorphic model. <i>Advances in Water Resources</i> , 2016, 93, 249-264.	1.7	35
24	Simplified methods for real-time prediction of storm surge uncertainty: The city of Venice case study. <i>Advances in Water Resources</i> , 2014, 71, 177-185.	1.7	34
25	Statistical characterization of spatiotemporal sediment dynamics in the Venice lagoon. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 1049-1064.	1.0	32
26	Sea level rise, hydrologic runoff, and the flooding of Venice. <i>Water Resources Research</i> , 2008, 44, .	1.7	30
27	Anthropogenic Modifications Can Significantly Influence the Local Mean Sea Level and Affect the Survival of Salt Marshes in Shallow Tidal Systems. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 996-1012.	1.0	30
28	Two dimensional modelling of flood flows and suspended sediment transport: the case of the Brenta River, Veneto (Italy). <i>Natural Hazards and Earth System Sciences</i> , 2004, 4, 165-181.	1.5	28
29	Morphodynamic evolution and stratal architecture of translating tidal point bars: Inferences from the northern Venice Lagoon (Italy). <i>Sedimentology</i> , 2018, 65, 1354-1377.	1.6	28
30	Optimal floodgate operation for river flood management: The case study of Padova (Italy). <i>Journal of Hydrology: Regional Studies</i> , 2020, 30, 100702.	1.0	28
31	Analysis of the drainage density of experimental and modelled tidal networks. <i>Earth Surface Dynamics</i> , 2014, 2, 105-116.	1.0	26
32	Addressing the effect of the Mo.S.E. barriers closure on wind setup within the Venice lagoon. <i>Estuarine, Coastal and Shelf Science</i> , 2019, 225, 106249.	0.9	26
33	Control of wind-wave power on morphological shape of salt marsh margins. <i>Water Science and Engineering</i> , 2020, 13, 45-56.	1.4	26
34	Assessing the morphodynamic response of human-altered tidal embayments. <i>Geomorphology</i> , 2018, 320, 127-141.	1.1	24
35	Loss of geomorphic diversity in shallow tidal embayments promoted by storm-surge barriers. <i>Science Advances</i> , 2022, 8, eabm8446.	4.7	23
36	Three-Dimensional Flow Structures and Morphodynamic Evolution of Microtidal Meandering Channels. <i>Water Resources Research</i> , 2020, 56, e2020WR027822.	1.7	22

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37	The first operations of Mo.S.E. system to prevent the flooding of Venice: Insights on the hydrodynamics of a regulated lagoon. <i>Estuarine, Coastal and Shelf Science</i> , 2021, 261, 107547.	0.9	22
38	Tidal Flow Asymmetry and Discharge of Lateral Tributaries Drive the Evolution of a Microtidal Meander in the Venice Lagoon (Italy). <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 3043-3066.	1.0	21
39	Morphodynamic evolution and sedimentology of a microtidal meander bend of the Venice Lagoon (Italy). <i>Marine and Petroleum Geology</i> , 2018, 96, 391-404.	1.5	20
40	Water and sediment temperature dynamics in shallow tidal environments: The role of the heat flux at the sediment-water interface. <i>Advances in Water Resources</i> , 2018, 113, 126-140.	1.7	18
41	On the feedback between water turbidity and microphytobenthos growth in shallow tidal environments. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 1192-1206.	1.2	18
42	An approximate solution to the flow field on vegetated intertidal platforms: Applicability and limitations. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 1682-1703.	1.0	15
43	Remote Sensing for Optimal Estimation of Water Temperature Dynamics in Shallow Tidal Environments. <i>Remote Sensing</i> , 2020, 12, 51.	1.8	13
44	How long the Mo.S.E. barriers will be effective in protecting all urban settlements within the Venice Lagoon? The wind setup constraint. <i>Coastal Engineering</i> , 2021, 168, 103923.	1.7	13
45	A simplified model for frictionally dominated tidal flows. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	11
46	Multipurpose Use of Artificial Channel Networks for Flood Risk Reduction: The Case of the Waterway Padova-Venice (Italy). <i>Water (Switzerland)</i> , 2020, 12, 1609.	1.2	11
47	Natural and Human-Induced Flow and Sediment Transport within Tidal Creek Networks Influenced by Ocean-Bay Tides. <i>Water (Switzerland)</i> , 2019, 11, 1493.	1.2	9
48	Astronomic link to anomalously high mean sea level in the northern Adriatic Sea. <i>Estuarine, Coastal and Shelf Science</i> , 2021, 257, 107418.	0.9	9
49	Dataset of wind setup in a regulated Venice lagoon. <i>Data in Brief</i> , 2019, 26, 104386.	0.5	8
50	Experimental Setup and Measuring System to Study Solitary Wave Interaction with Rigid Emergent Vegetation. <i>Sensors</i> , 2019, 19, 1787.	2.1	8
51	Modelling, simulation and real-time control of a laboratory tide generation system. <i>Control Engineering Practice</i> , 2019, 83, 165-175.	3.2	7
52	Modelling and Simulation of an Artificial Tide Generation System. <i>IFAC-PapersOnLine</i> , 2018, 51, 13-18.	0.5	3
53	A conceptual model for the long term evolution of tidal flats in the Venice lagoon. , 2007, , 137-144.		3
54	MORPHODYNAMIC RESPONSE TO HUMAN ACTIVITIES IN THE BAY OF CAÀ,Â'DIZ (2012-2015). <i>Coastal Engineering Proceedings</i> , 2017, , 16.	0.1	2

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55	Model-free Control of an Artificial Tide Generation Experimental Apparatus. IFAC-PapersOnLine, 2018, 51, 829-834.	0.5	2
56	Multiple equilibria in tidal eco-geomorphology. , 2007, , 263-269.		1
57	Laboratory experiments on solitary wave interaction with rigid emergent vegetation: some preliminary results. , 2018, , .		0
58	Mathematical Modeling of Tidal Flow Over Saltmarshes and Tidal Flats With Applications to the Venice Lagoon. , 2019, , 325-355.		0
59	River, Coastal and Estuarine Morphodynamics Selected papers from the 10th anniversary of the RCEM Symposium. Earth Surface Processes and Landforms, 2020, 45, 1311-1314.	1.2	0
60	Modelling Tidal Environments. , 2021, , .		0