Stefano Lanzoni

List of Publications by Year in descending order

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Version: 2024-02-01

90 papers	4,941 citations	71102 41 h-index	95266 68 g-index
94 all docs	94 docs citations	94 times ranked	2520 citing authors

#	Article	IF	Citations
1	Landscape evolution in tidal embayments: Modeling the interplay of erosion, sedimentation, and vegetation dynamics. Journal of Geophysical Research, 2007, 112, .	3.3	247
2	Biologically-controlled multiple equilibria of tidal landforms and the fate of the Venice lagoon. Geophysical Research Letters, 2007, 34, .	4.0	199
3	Long-term evolution and morphodynamic equilibrium of tidal channels. Journal of Geophysical Research, 2002, 107, 1-1.	3.3	184
4	Understanding and predicting wave erosion of marsh edges. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	176
5	Tidal networks: 2. Watershed delineation and comparative network morphology. Water Resources Research, 1999, 35, 3905-3917.	4.2	171
6	On tide propagation in convergent estuaries. Journal of Geophysical Research, 1998, 103, 30793-30812.	3.3	166
7	On the drainage density of tidal networks. Water Resources Research, 2003, 39, .	4.2	159
8	The importance of being coupled: Stable states and catastrophic shifts in tidal biomorphodynamics. Journal of Geophysical Research, 2010, 115, .	3.3	150
9	Tidal networks: 1. Automatic network extraction and preliminary scaling features from digital terrain maps. Water Resources Research, 1999, 35, 3891-3904.	4.2	149
10	Tidal network ontogeny: Channel initiation and early development. Journal of Geophysical Research, 2005, 110, .	3.3	146
11	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
12	Tidal networks: 3. Landscape-forming discharges and studies in empirical geomorphic relationships. Water Resources Research, 1999, 35, 3919-3929.	4.2	133
13	Tidal meanders. Water Resources Research, 2002, 38, 7-1-7-14.	4.2	130
14	Experiments on bar formation in a straight flume: 1. Uniform sediment. Water Resources Research, 2000, 36, 3337-3349.	4.2	119
15	Is â€œMorphodynamic Equilibriumâ€•an oxymoron?. Earth-Science Reviews, 2017, 165, 257-267.	9.1	112
16	Experiments on bar formation in a straight flume: 2. Graded sediment. Water Resources Research, 2000, 36, 3351-3363.	4.2	101
17	Spontaneous tidal network formation within a constructed salt marsh: Observations and morphodynamic modelling. Geomorphology, 2007, 91, 186-197.	2.6	95
18	On the tidal prismâ€“channel area relations. Journal of Geophysical Research, 2010, 115, .	3.3	91

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19	On the nature of meander instability. Journal of Geophysical Research, 2006, 111, .	3.3	86
20	Coarseâ€grained debris flow dynamics on erodible beds. Journal of Geophysical Research F: Earth Surface, 2017, 122, 592-614.	2.8	85
21	Morphodynamic regime and longâ€term evolution of meandering rivers. Journal of Geophysical Research, 2009, 114, .	3.3	83
22	Experimental analysis of tidal network growth and development. Continental Shelf Research, 2010, 30, 950-962.	1.8	83
23	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
24	Laboratory Experiments on the Failure of Coarse Homogeneous Sediment Natural Dams on a Sloping Bed. Journal of Hydraulic Engineering, 2010, 136, 868-879.	1.5	75
25	Grain sorting and bar instability. Journal of Fluid Mechanics, 1999, 393, 149-174.	3.4	73
26	Geomorphic signatures of deltaic processes and vegetation: The Gangesâ€Brahmaputraâ€Jamuna case study. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1838-1849.	2.8	71
27	The life of a meander bend: Connecting shape and dynamics via analysis of a numerical model. Journal of Geophysical Research F: Earth Surface, 2015, 120, 690-710.	2.8	71
28	Where river and tide meet: The morphodynamic equilibrium of alluvial estuaries. Journal of Geophysical Research F: Earth Surface, 2015, 120, 75-94.	2.8	68
29	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
30	Long waves in erodible channels and morphodynamic influence. Water Resources Research, 2006, 42, .	4.2	65
31	Insights into lateral marsh retreat mechanism through localized field measurements. Water Resources Research, 2016, 52, 1446-1464.	4.2	63
32	Runoffâ€generated debris flows: Observation of initiation conditions and erosionâ€“deposition dynamics along the channel at Cancia (eastern Italian Alps). Earth Surface Processes and Landforms, 2020, 45, 3556-3571.	2.5	63
33	Multiscale statistical characterization of migrating bed forms in gravel and sand bed rivers. Water Resources Research, 2011, 47, .	4.2	60
34	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
35	Relevance of erosion processes when modelling in-channel gravel debris flows for efficient hazard assessment. Journal of Hydrology, 2019, 568, 575-591.	5.4	57
36	Sand bars in tidal channels Part 2. Tidal meanders. Journal of Fluid Mechanics, 2002, 451, 203-238.	3.4	54

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37	Runoff of small rocky headwater catchments: Field observations and hydrological modeling. Water Resources Research, 2016, 52, 8138-8158.	4.2	52
38	One-dimensional numerical modeling of the long-term morphodynamic evolution of a tidally-dominated estuary: The Lower Fly River (Papua New Guinea). Sedimentary Geology, 2014, 301, 107-119.	2.1	51
39	On funneling of tidal channels. Journal of Geophysical Research F: Earth Surface, 2015, 120, 433-452.	2.8	51
40	Modeling meander morphodynamics over selfâ€formed heterogeneous floodplains. Water Resources Research, 2017, 53, 5137-5157.	4.2	51
41	How long are tidal channels?. Journal of Fluid Mechanics, 2010, 643, 479-494.	3.4	46
42	Tidal hydrodynamics and erosional power in the Fly River delta, Papua New Guinea. Journal of Geophysical Research, 2010, 115, .	3.3	41
43	Remotely-sensed planform morphologies reveal fluvial and tidal nature of meandering channels. Scientific Reports, 2020, 10, 54.	3.3	41
44	Propagation and deposition of stony debris flows at channel confluences. Water Resources Research, 2015, 51, 5100-5116.	4.2	38
45	A geomorphic study of lagoonal landforms. Water Resources Research, 2005, 41, .	4.2	37
46	On the Oâ€™Brienâ€“Jarrettâ€“Marchi law. Rendiconti Lincei, 2009, 20, 225-236.	2.2	36
47	Experimental Study of the Flow Field over Bottom Intake Racks. Journal of Hydraulic Engineering, 2008, 134, 15-22.	1.5	35
48	Morphological equilibrium of short channels dissecting the tidal flats of coastal lagoons. Journal of Geophysical Research, 2010, 115, .	3.3	33
49	A mathematical model for meandering rivers with varying width. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1641-1657.	2.8	30
50	Longâ€term river meandering as a part of chaotic dynamics? A contribution from mathematical modelling. Earth Surface Processes and Landforms, 2010, 35, 791-802.	2.5	29
51	Modeling the morphodynamic equilibrium of an intermediate reach of the Po River (Italy). Advances in Water Resources, 2015, 81, 95-102.	3.8	27
52	A Numerical Model of Bank Collapse and River Meandering. Geophysical Research Letters, 2021, 48, e2021GL093516.	4.0	23
53	Experimental investigation of the impact of macroalgal mats on flow dynamics and sediment stability in shallow tidal areas. Estuarine, Coastal and Shelf Science, 2012, 112, 52-60.	2.1	21
54	A mass-conservative centered finite volume model for solving two-dimensional two-layer shallow water equations for fluid mud propagation over varying topography and dry areas. Advances in Water Resources, 2012, 40, 54-70.	3.8	20

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55	Threshold constraints on the size, shape and stability of alluvial rivers. Nature Reviews Earth & Environment, 2022, 3, 406-419.	29.7	20
56	Nonlinearity and complexity in gravel bed dynamics. Stochastic Environmental Research and Risk Assessment, 2009, 23, 967-975.	4.0	18
57	High curvatures drive river meandering: COMMENT. Geology, 2019, 47, e485-e485.	4.4	18
58	A Review on Bank Retreat: Mechanisms, Observations, and Modeling. Reviews of Geophysics, 2022, 60, .	23.0	18
59	Bedform effect on the reorganization of surface and subsurface grain size distribution in gravel bedded channels. Acta Geophysica, 2012, 60, 1607-1638.	2.0	15
60	Bed evolution measurement with flowing water in morphodynamics experiments. Earth Surface Processes and Landforms, 2012, 37, 818-827.	2.5	15
61	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
62	On the Morphodynamic Equilibrium of a Short Tidal Channel. Journal of Geophysical Research F: Earth Surface, 2019, 124, 639-665.	2.8	15
63	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
64	Modeling shallow water flows on general terrains. Advances in Water Resources, 2018, 121, 316-332.	3.8	14
65	Meandering Evolution and Width Variations: A Physicsâ€Statisticsâ€Based Modeling Approach. Water Resources Research, 2019, 55, 76-94.	4.2	14
66	Intertwined ecoâ€morphodynamic evolution of salt marshes and emerging tidal channel networks. Water Resources Research, 0, , .	4.2	14
67	Stability of a stratified viscous shear flow in a tilted tube. Physics of Fluids, 1999, 11, 344-355.	4.0	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	Experimental investigation of the impact of macroalgal mats on the wave and current dynamics. Advances in Water Resources, 2016, 93, 326-335.	3.8	11
71	Mutual interference of two debris flow deposits delivered in a downstream river reach. Journal of Mountain Science, 2014, 11, 1385-1395.	2.0	10
72	Coastal wetlands at risk: learning from Venice and New Orleans. Ecohydrology and Hydrobiology, 2011, 11, 183-202.	2.3	9

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73	Tidal Networks: form and Function. Coastal and Estuarine Studies, 0, , 75-91.	0.4	9
74	River banks and channel axis curvature: Effects on the longitudinal dispersion in alluvial rivers. Advances in Water Resources, 2018, 113, 55-72.	3.8	9
75	Astronomic link to anomalously high mean sea level in the northern Adriatic Sea. Estuarine, Coastal and Shelf Science, 2021, 257, 107418.	2.1	9
76	A New Method for Automatic Definition of Tidal Creek Networks. Journal of Coastal Research, 2018, 85, 156-160.	0.3	7
77	Scour depth around flat and sloped crest bendway weirs: a laboratory study. International Journal of River Basin Management, 2016, 14, 83-93.	2.7	5
78	Mathematical modelling of bedload transport over partially dry areas. Acta Geophysica, 2008, 56, 734-752.	2.0	3
79	Salt-Marsh Ecogeomorphological Dynamics and Hydrodynamic Circulation. , 2019, , 189-220.		3
80	Eco-morphodynamics of coastal wetlands. Rendiconti Lincei, 2022, 33, 217-243.	2.2	3
81	Reply to comment by Cao and Hu on â€œLong waves in erodible channels and morphodynamic influenceâ€• Water Resources Research, 2008, 44, .	4.2	2
82	Closure to â€œExperimental Study of the Flow Field over Bottom Intake Racksâ€•by Maurizio Righetti and Stefano Lanzoni. Journal of Hydraulic Engineering, 2009, 135, 865-868.	1.5	2
83	Finite volume modelling of a stratified flow with the presence of submerged weirs. Journal of Applied Water Engineering and Research, 2015, 3, 43-52.	1.8	2
84	Stony Debris Flow Debouching in a River Reach: Energy Dissipative Mechanisms and Deposit Morphology. , 2017, , 377-383.		1
85	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
86	Morphodynamic Modeling of Alluvial Rivers and Floodplains. , 2021, , .		0
87	River and Tidal Networks. , 2001, , 191-211.		0
88	Geomorphological properties of a lagoonal system. , 2006, , .		0
89	On the convective nature of bend instability. , 2006, , .		0
90	Long-term behaviour of meandering rivers. , 2007, , 839-846.		0