Luca Solari

List of Publications by Year
in descending order

56 papers	1,463 citations	361413 20 h-index	345221 36 g-index
62 all docs	62 docs citations	62 times ranked	1268 citing authors

#	Article	IF	Citations
1	Bed load at low Shields stress on arbitrarily sloping beds: Failure of the Bagnold hypothesis. Water Resources Research, 2002, 38, 31-1-31-16.	4.2	109
2	Near-Bed Turbulence Characteristics at the Entrainment Threshold of Sediment Beds. Journal of Hydraulic Engineering, 2011, 137, 945-958.	1.5	100
3	Bed load at low Shields stress on arbitrarily sloping beds: Alternative entrainment formulation. Water Resources Research, 2003, 39, .	4.2	99
4	Advances on Modelling Riparian Vegetationâ€"Hydromorphology Interactions. River Research and Applications, 2016, 32, 164-178.	1.7	90
5	Ecomorphodynamic evolution of salt marshes: Experimental observations of bank retreat processes. Geomorphology, 2013, 195, 53-65.	2.6	77
6	Insights into lateral marsh retreat mechanism through localized field measurements. Water Resources Research, 2016, 52, 1446-1464.	4.2	63
7	An experimental investigation on mass failures occurring in a riverbank composed of sandy gravel. Geomorphology, 2012, 163-164, 56-69.	2.6	61
8	Flow dynamics and turbulence patterns in a drainage channel colonized by common reed (Phragmites) Tj ETQq0 0 0 rgBT /Overlock 10 T 39-52.	3.6	59
9	Do alternate bars affect sediment transport and flow resistance in gravelâ€bed rivers?. Earth Surface Processes and Landforms, 2012, 37, 866-875.	2.5	55
10	Effects of macroâ€scale bed roughness geometry on flow resistance. Water Resources Research, 2007, 43, .	4.2	52
11	Dissipative analogies between a schematic macroâ€roughness arrangement and stepâ€"pool morphology. Earth Surface Processes and Landforms, 2007, 32, 1628-1640.	2.5	52
12	Inâ€channel woodâ€related hazards at bridges: <scp>A</scp> review. River Research and Applications, 2018, 34, 617-628.	1.7	46
13	Effect of Seepage-Induced Nonhydrostatic Pressure Distribution on Bed-Load Transport and Bed Morphodynamics. Journal of Hydraulic Engineering, 2008, 134, 378-389.	1.5	41
14	Case Study: Efficiency of Slit-Check Dams in the Mountain Region of Versilia Basin. Journal of Hydraulic Engineering, 2005, 131, 145-152.	1.5	40
15	The Curious Case of Mobility Reversal in Sediment Mixtures. Journal of Hydraulic Engineering, 2000, 126, 185-197.	1.5	39
16	On salt marshes retreat: Experiments and modeling toppling failures induced by wind waves. Journal of Geophysical Research F: Earth Surface, 2014, 119, 603-620.	2.8	39
17	Evaluation of Flow Resistance Models Based on Field Experiments in a Partly Vegetated Reclamation Channel. Geosciences (Switzerland), 2020, 10, 47.	2.2	39
18	The effect of flexible vegetation on flow in drainage channels: Estimation of roughness coefficients at the real scale. Ecological Engineering, 2018, 120, 411-421.	3.6	38

#	Article	IF	Citations
19	On the prediction of settling velocity for plastic particles of different shapes. Environmental Pollution, 2021, 290, 118068.	7.5	36
20	Conservative Scheme for Numerical Modeling of Flow in Natural Geometry. Journal of Hydraulic Engineering, 2008, 134, 736-748.	1.5	25
21	A Physical Model for the Uprooting of Flexible Vegetation on River Bars. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1018-1034.	2.8	20
22	Gravitational effects on bed load transport at low Shields stress: Experimental observations. Water Resources Research, 2007, 43, .	4.2	19
23	Burrowing activity of Procambarus clarkii on levees: analysing behaviour and burrow structure. Wetlands Ecology and Management, 2019, 27, 497-511.	1.5	19
24	Bridge pier shape influence on wood accumulation: Outcomes from flume experiments and numerical modelling. Journal of Flood Risk Management, 2020, 13, e12599.	3.3	18
25	Equilibrium Cross Section of River Channels With Cohesive Erodible Banks. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005286.	2.8	17
26	Monitoring of internal erosion processes by time-lapse electrical resistivity tomography. Journal of Hydrology, 2020, 589, 125340.	5.4	17
27	Applicability of the De Marchi Hypothesis for Side Weir Flow in the Case of Movable Beds. Journal of Hydraulic Engineering, 2012, 138, 653-656.	1.5	14
28	Bed-Load Transport Equation on Arbitrarily Sloping Beds. Journal of Hydraulic Engineering, 2008, 134, 110-115.	1.5	12
29	Local highâ€slope effects on sediment transport and fluvial bed form dynamics. Water Resources Research, 2009, 45, .	4.2	11
30	Return period of vegetation uprooting by flow. Journal of Hydrology, 2019, 578, 124103.	5.4	11
31	Comparative analysis of modeled and measured vegetative ChÃ©zy flow resistance coefficients in a drainage channel vegetated by dormant riparian reed. , 2019, , .		11
32	On the vulnerability of woody riparian vegetation during flood events. Environmental Fluid Mechanics, 2020, 20, 635-661.	1.6	11
33	Downstream lightening and upward heavying: Experiments with sediments differing in density. Sedimentology, 2015, 62, 1384-1407.	3.1	10
34	On the vulnerability of river levees induced by seepage. Journal of Flood Risk Management, 2018, 11, S677-S686.	3.3	9
35	Morphodynamic modeling of the basal boundary of ice cover on brackish lakes. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1432-1442.	2.8	8
36	A combined field sampling-modeling approach for computing sediment transport during flash floods in a gravel-bed stream. Water Resources Research, 2013, 49, 6642-6655.	4.2	8

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37	Biomorphological scaling laws from convectively accelerated streams. Earth Surface Processes and Landforms, 2020, 45, 723-735.	2.5	8
38	Reducing the Flood Risk of Art Cities: The Case of Florence. Journal of Hydraulic Engineering, 2020, 146, .	1.5	7
39	On the estimation of the bed-material transport and budget along a river segment: application to the Middle Loire River, France. Aquatic Sciences, 2016, 78, 71-81.	1.5	6
40	Second order discontinuous Galerkin scheme for compound natural channels with movable bed. Applications for the computation of rating curves. Advances in Water Resources, 2016, 93, 89-104.	3.8	6
41	Threeâ€dimensional hydraulic characterisation of the Arno River in Florence. Journal of Flood Risk Management, 2019, 12, .	3.3	6
42	Morphology, Bedload, and Sorting Process Variability in Response to Lateral Confinement: Results From Physical Models of Gravelâ€bed Rivers. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2020JF005773.	2.8	6
43	Threshold Conditions for the Shift Between Vegetated and Barebed Rivers. Geophysical Research Letters, 2022, 49, .	4.0	6
44	Side Weir Flow on a Movable Bed. Journal of Hydraulic Engineering, 2016, 142, .	1.5	5
45	Effects of vegetation at a bar confluence on river hydrodynamics: The case study of the Arno River at Greve junction. River Research and Applications, 2021, 37, 615-626.	1.7	5
46	Wood accumulation at bridges: Laboratory experiments on the effect of pier shape. , 2016, , .		5
47	Flume experiments on vegetated alternate bars. E3S Web of Conferences, 2018, 40, 02034.	0.5	3
48	Explaining multiple patches of aquatic vegetation through linear stability analysis. Environmental Fluid Mechanics, 2022, 22, 645-658.	1.6	3
49	Closure to â€œEffect of Seepage-Induced Nonhydrostatic Pressure Distribution on Bed-Load Transport and Bed Morphodynamicsâ€•by Simona Francalanci, Gary Parker, and Luca Solari. Journal of Hydraulic Engineering, 2010, 136, 79-82.	1.5	2
50	1D morphodynamic model for natural rivers. , 2006, , .		2
51	Discussion of â€œFlow Resistance of Rock Chutes with Protruding Bouldersâ€•by S. Pagliara and P. Chiavaccini. Journal of Hydraulic Engineering, 2008, 134, 1021-1022.	1.5	1
52	Marchiâ€™s Research on Supercritical Flow in Tight Bends and Backwater Effects. Journal of Hydraulic Engineering, 2016, 142, 02515004.	1.5	1
53	On the effects of vegetated bars on river hydrodynamics. , 2020, , 1509-1515.		1
54	On the erosion due to inclined jets. Annals of Warsaw University of Life Sciences, Land Reclamation, 2010, 42, 187-196.	0.2	1

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55	Experimental observations on sorting patterns of heterogeneous sediment mixtures in low constrained flows. E3S Web of Conferences, 2018, 40, 04015.	0.5	0
56	Monitoring Sediment Transport During Floods in Tuscany. , 2015, , 335-337.		0