

Fabián A Bombardelli

List of Publications by Year in descending order

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64
papers

1,873
citations

201575

27
h-index

276775

41
g-index

66
all docs

66
docs citations

66
times ranked

1624
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling and Similarity in Rough Channel Flows. <i>Physical Review Letters</i> , 2001, 88, 014501.	2.9	137
2	On the Values for the Turbulent Schmidt Number in Environmental Flows. <i>Fluids</i> , 2017, 2, 17.	0.8	137
3	Laboratory measurements and multi-block numerical simulations of the mean flow and turbulence in the non-aerated skimming flow region of steep stepped spillways. <i>Environmental Fluid Mechanics</i> , 2011, 11, 263-288.	0.7	97
4	High-resolution Numerical Simulation of Flow Through a Highly Sinuous River Reach. <i>Water Resources Management</i> , 2004, 18, 177-199.	1.9	84
5	Two-phase modeling of turbulence in dilute sediment-laden, open-channel flows. <i>Environmental Fluid Mechanics</i> , 2009, 9, 237-266.	0.7	70
6	Numerical modeling of large-scale bubble plumes accounting for mass transfer effects. <i>International Journal of Multiphase Flow</i> , 2002, 28, 1763-1785.	1.6	69
7	INTEGRATING SCIENCE AND TECHNOLOGY TO SUPPORT STREAM NATURALIZATION NEAR CHICAGO, ILLINOIS. <i>Journal of the American Water Resources Association</i> , 2002, 38, 931-944.	1.0	60
8	Episodic closure of the tidal inlet at the mouth of the Russian River – A small bar-built estuary in California. <i>Geomorphology</i> , 2013, 189, 66-80.	1.1	60
9	Computation of the Particle Basset Force with a Fractional-Derivative Approach. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 1513-1520.	0.7	54
10	Skimming, Nonaerated Flow on Stepped Spillways over Roller Compacted Concrete Dams. <i>Journal of Hydraulic Engineering</i> , 2012, 138, 870-877.	0.7	52
11	Influence of VOF technique, turbulence model and discretization scheme on the numerical simulation of the non-aerated, skimming flow in stepped spillways. <i>Journal of Hydro-Environment Research</i> , 2018, 19, 137-149.	1.0	50
12	Localized Turbulent Flows on Scouring Granular Beds. <i>Physical Review Letters</i> , 2005, 95, 014501.	2.9	49
13	Modeling linkages between sediment resuspension and water quality in a shallow, eutrophic, wind-exposed lake. <i>Ecological Modelling</i> , 2009, 220, 1251-1265.	1.2	48
14	Theoretical/numerical model for the transport of non-uniform suspended sediment in open channels. <i>Advances in Water Resources</i> , 2011, 34, 577-591.	1.7	48
15	Toward two-phase flow modeling of nondilute sediment transport in open channels. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	47
16	Sediment resuspension in a shallow lake. <i>Water Resources Research</i> , 2009, 45, .	1.7	45
17	Temporal evolution of jet induced scour depth in cohesionless granular beds and the phenomenological theory of turbulence. <i>Physics of Fluids</i> , 2018, 30, .	1.6	43
18	Scouring of granular beds by jet-driven axisymmetric turbulent cauldrons. <i>Physics of Fluids</i> , 2006, 18, 088101.	1.6	41

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19	Hierarchical modeling of the dilute transport of suspended sediment in open channels. <i>Environmental Fluid Mechanics</i> , 2009, 9, 207-235.	0.7	40
20	A biogeochemical model of contaminant fate and transport in river waters and sediments. <i>Journal of Contaminant Hydrology</i> , 2010, 112, 103-117.	1.6	37
21	Uncertainty in the parameterization of sediment build-up and wash-off processes in the simulation of sediment transport in urban areas. <i>Environmental Modelling and Software</i> , 2019, 111, 170-181.	1.9	37
22	Computation of the Basset force: recent advances and environmental flow applications. <i>Environmental Fluid Mechanics</i> , 2016, 16, 193-208.	0.7	34
23	Analytical solutions of nonlinear and variable-parameter transport equations for verification of numerical solvers. <i>Environmental Fluid Mechanics</i> , 2014, 14, 711-742.	0.7	33
24	Air entrainment onset in skimming flows on steep stepped spillways: an analysis. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2014, 52, 375-385.	0.7	32
25	A general mixture model for sediment laden flows. <i>Advances in Water Resources</i> , 2017, 107, 108-125.	1.7	32
26	Detached Eddy Simulation of the Non-aerated Skimming Flow over a Stepped Spillway. <i>Journal of Hydraulic Engineering</i> , 2017, 143, .	0.7	30
27	Computations of Curved Free Surface Water Flow on Spiral Concentrators. <i>Journal of Hydraulic Engineering</i> , 2001, 127, 629-631.	0.7	27
28	Wind-driven nearshore sediment resuspension in a deep lake during winter. <i>Water Resources Research</i> , 2014, 50, 8826-8844.	1.7	27
29	Experimental and Theoretical Study of Local Scour around Three-Pier Group. <i>Journal of Hydraulic Engineering</i> , 2020, 146, .	0.7	25
30	3D numerical simulation of particle-particle collisions in saltation mode near stream beds. <i>Acta Geophysica</i> , 2012, 60, 1661-1688.	1.0	22
31	Characterization of time and spatial scales of a migrating rivermouth. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	21
32	Characterization of turbulence statistics on the non-aerated skimming flow over stepped spillways: a numerical study. <i>Environmental Fluid Mechanics</i> , 2016, 16, 1195-1221.	0.7	21
33	Theoretical Approach for Shear-Stress Estimation at 2D Equilibrium Scour Holes in Granular Material due to Subvertical Plunging Jets. <i>Journal of Hydraulic Engineering</i> , 2020, 146, .	0.7	20
34	Distribution of mean flow and turbulence statistics in plunge pools. <i>Journal of Hydroinformatics</i> , 2017, 19, 173-190.	1.1	17
35	Rough-pipe flows and the existence of fully developed turbulence. <i>Physics of Fluids</i> , 2006, 18, 038107.	1.6	16
36	Time-dependent scour processes on granular beds at large scale. <i>Environmental Fluid Mechanics</i> , 2021, 21, 791-816.	0.7	16

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37	Numerical aspects of the simulation of discontinuous saline underflows: the lock-exchange problem. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2009, 47, 777-789.	0.7	13
38	Experimental characterization of three-dimensional flow vortical structures in submerged hydraulic jumps. <i>Journal of Hydro-Environment Research</i> , 2017, 15, 1-12.	1.0	13
39	Towards an understanding of the mechanisms leading to air entrainment in the skimming flow over stepped spillways. <i>Environmental Fluid Mechanics</i> , 2020, 20, 375-392.	0.7	12
40	Hydraulic structures engineering: An evolving science in a changing world. <i>Wiley Interdisciplinary Reviews: Water</i> , 2021, 8, e1505.	2.8	11
41	Progress in the observation and modeling of turbulent multi-phase flows. <i>Environmental Fluid Mechanics</i> , 2009, 9, 121-123.	0.7	10
42	A general formulation of relative motion between two phases in sediment-laden water flows. <i>International Journal of Multiphase Flow</i> , 2018, 109, 63-83.	1.6	10
43	The setup and relaxation of spring upwelling in a deep, rotationally influenced lake. <i>Limnology and Oceanography</i> , 2021, 66, 1168-1189.	1.6	10
44	Assessment of the Melt Rate Function in a Temperature Index Snow Model Using Observed Data. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, 1275-1282.	0.8	8
45	Seasonal nearshore sediment resuspension and water clarity at Lake Tahoe. <i>Lake and Reservoir Management</i> , 2016, 32, 132-145.	0.4	8
46	Landward Propagation of Saline Waters Following Closure of a Bar-Built Estuary: Russian River (California, USA). <i>Estuaries and Coasts</i> , 2016, 39, 621-638.	1.0	8
47	Physically Based Scaling Models to Predict Gas Transfer Velocity in Streams and Rivers. <i>Water Resources Research</i> , 2021, 57, e2020WR028757.	1.7	8
48	Environmental multi-phase fluid mechanics: what, why, how, where to?. <i>Environmental Fluid Mechanics</i> , 2017, 17, 1-5.	0.7	7
49	Predicting Wave-Induced Sediment Resuspension at the Perimeter of Lakes Using a Steady-State Spectral Wave Model. <i>Water Resources Research</i> , 2019, 55, 1279-1295.	1.7	7
50	Characterization of Coherent Structures from Parallel, L.E.S. Computations of Wandering Effects in Bubble Plumes. , 2003, , 1.		4
51	Simplified 1-D Hydrodynamic and Salinity Transport Modeling of the Sacramento-San Joaquin Delta: Sea Level Rise and Water Diversion Effects. <i>San Francisco Estuary and Watershed Science</i> , 2013, 11, .	0.2	4
52	3D Flow Structures During Upwelling Events in Lakes of Moderate Size. <i>Water Resources Research</i> , 2022, 58, .	1.7	4
53	Comparison of Current Methods for the Evaluation of Einstein's Integrals. <i>Journal of Hydraulic Engineering</i> , 2017, 143, 06016026.	0.7	3
54	Generalized algorithms for particle motion and collision with streambeds. <i>International Journal of Sediment Research</i> , 2019, 34, 295-306.	1.8	3

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55	The Phenomenological Theory of Turbulence and the Scour Evolution Downstream of Grade-Control Structures under Steady Discharges. <i>Water (Switzerland)</i> , 2021, 13, 2359.	1.2	3
56	MODELING MERCURY FATE AND TRANSPORT IN AQUATIC SYSTEMS. , 2010, , 275-308.		3
57	A distributed piezo-polymer scour net for bridge scour hole topography monitoring. <i>Structural Monitoring and Maintenance</i> , 2014, 1, 183-195.	1.7	3
58	Discussers. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2011, 49, 277-279.	0.7	2
59	Using Software Quality and Algorithm Testing to Verify a One-Dimensional Transport Model. , 2011, , .		1
60	Three Dimensional Model for Particle Saltation Close to Stream Beds, Including a Detailed Description of the Particle Interaction with Turbulence and Inter-Particle Collisions. , 2011, , .		1
61	Environmental fluid mechanics in hydraulic engineering. <i>Environmental Fluid Mechanics</i> , 2020, 20, 227-232.	0.7	1
62	STABILITY OF RIVER MOUTHS: THE CASE OF THE RUSSIAN RIVER, CALIFORNIA. , 2009, , .		0
63	On the Inverse Relationship between Concentration and Size of Cohesive Sediment. <i>Journal of Coastal Research</i> , 2018, 85, 56-60.	0.1	0
64	A New ASCE Monograph: Scour at Channel-Control Structures. <i>Journal of Hydraulic Engineering</i> , 2020, 146, 02520003.	0.7	0