Paolo Blondeaux

List of Publications by Year
in descending order

99 papers	2,644 citations	201575 27 h-index	206029 48 g-index
102 all docs	102 docs citations	102 times ranked	1129 citing authors

#	Article	IF	Citations
1	A unified barâ€“bend theory of river meanders. Journal of Fluid Mechanics, 1985, 157, 449-470.	1.4	325
2	Sand ripples under sea waves Part 1. Ripple formation. Journal of Fluid Mechanics, 1990, 218, 1.	1.4	168
3	MECHANICS OFCOASTALFORMS. Annual Review of Fluid Mechanics, 2001, 33, 339-370.	10.8	103
4	Coherent structures in oscillatory boundary layers. Journal of Fluid Mechanics, 2003, 474, 1-33.	1.4	99
5	Numerical experiments on flapping foils mimicking fish-like locomotion. Physics of Fluids, 2005, 17, 113601.	1.6	98
6	Three-dimensional oscillatory flow over steep ripples. Journal of Fluid Mechanics, 2000, 412, 355-378.	1.4	97
7	Propulsive efficiency of oscillating foils. European Journal of Mechanics, B/Fluids, 2004, 23, 255-278.	1.2	92
8	Sand ripples under sea waves Part 2. Finite-amplitude development. Journal of Fluid Mechanics, 1990, 218, 19.	1.4	89
9	Vorticity dynamics in an oscillatory flow over a rippled bed. Journal of Fluid Mechanics, 1991, 226, 257-289.	1.4	83
10	On the modeling of sand wave migration. Journal of Geophysical Research, 2004, 109, .	3.3	79
11	On the formation of sand waves and sand banks. Journal of Fluid Mechanics, 2006, 557, 1.	1.4	75
12	Wall imperfections as a triggering mechanism for Stokes-layer transition. Journal of Fluid Mechanics, 1994, 264, 107-135.	1.4	63
13	The morphodynamics of tidal sand waves: A model overview. Coastal Engineering, 2008, 55, 657-670.	1.7	51
14	Sea ripple formation: the heterogeneous sediment case. Coastal Engineering, 1995, 25, 237-253.	1.7	49
15	Sand ripples under sea waves Part 3. Brick-pattern ripple formation. Journal of Fluid Mechanics, 1992, 239, 23.	1.4	48
16	Turbulent boundary layer at the bottom of gravity waves. Journal of Hydraulic Research/De Recherches Hydrauliques, 1987, 25, 447-464.	0.7	41
17	A note on tidally generated sand waves. Journal of Fluid Mechanics, 2003, 485, 171-190.	1.4	40
18	Turbulent boundary layer under a solitary wave. Journal of Fluid Mechanics, 2008, 615, 433-443.	1.4	39

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19	Turbulent spots in oscillatory boundary layers. Journal of Fluid Mechanics, 2011, 685, 365-376.	1.4	33
20	Waves plus currents crossing at a right angle: Experimental investigation. Journal of Geophysical Research, 2006, 111, .	3.3	32
21	Coherent structures in an oscillatory separated flow: numerical experiments. Journal of Fluid Mechanics, 2004, 518, 215-229.	1.4	30
22	Chaotic Flow Generated by an Oscillating Foil.. AIAA Journal, 2005, 43, 918-921.	1.5	30
23	Steady streaming and sediment transport at the bottom of sea waves. Journal of Fluid Mechanics, 2012, 697, 115-149.	1.4	30
24	Migrating sea ripples. European Journal of Mechanics, B/Fluids, 2000, 19, 285-301.	1.2	29
25	BOUNDARY LAYER AND SEDIMENT DYNAMICS UNDER SEA WAVES. Series on Quality, Reliability and Engineering Statistics, 1999, , 133-190.	0.2	28
26	Migrating sand waves. Ocean Dynamics, 2003, 53, 232-238.	0.9	28
27	Grain sorting effects on the formation of tidal sand waves. Journal of Fluid Mechanics, 2009, 629, 311-342.	1.4	27
28	Crescentic bedforms in the nearshore region. Journal of Fluid Mechanics, 1999, 381, 271-303.	1.4	26
29	Modeling sand wave characteristics on the Belgian Continental Shelf and in the Calais-Dover Strait. Journal of Geophysical Research, 2007, 112, .	3.3	24
30	Quasiperiodicity and phase locking route to chaos in the 2â€Ð oscillatory flow around a circular cylinder. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1866-1868.	1.6	23
31	The nonlinear excitation of synchronous edge waves by a monochromatic wave normally approaching a plane beach. Journal of Fluid Mechanics, 1995, 301, 251-268.	1.4	23
32	Interface-resolved direct numerical simulations of sediment transport in a turbulent oscillatory boundary layer. Journal of Fluid Mechanics, 2020, 885, .	1.4	23
33	A route to chaos in an oscillatory flow: Feigenbaum scenario. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2492-2495.	1.6	22
34	Intermittent turbulence in a pulsating pipe flow. Journal of Fluid Mechanics, 2008, 599, 51-79.	1.4	22
35	Characteristics of the boundary layer at the bottom of a solitary wave. Coastal Engineering, 2011, 58, 206-213.	1.7	22
36	A model to predict the migration of sand waves in shallow tidal seas. Continental Shelf Research, 2016, 112, 31-45.	0.9	22

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37	Sea ripple formation: the turbulent boundary layer case. Coastal Engineering, 1995, 25, 227-236.	1.7	20
38	Sand ripples under sea waves. Part 4. Tile ripple formation. Journal of Fluid Mechanics, 2001, 447, 227-246.	1.4	20
39	On the formation of sediment chains in an oscillatory boundary layer. Journal of Fluid Mechanics, 2016, 789, 461-480.	1.4	20
40	Mass transport under sea waves propagating over a rippled bed. Journal of Fluid Mechanics, 1996, 314, 247-265.	1.4	19
41	A simple model of propulsive oscillating foils. Ocean Engineering, 2004, 31, 883-899.	1.9	19
42	Tidal sand wave formation: Influence of graded suspended sediment transport. Journal of Geophysical Research, 2009, 114, .	3.3	19
43	Sediment mixtures, coastal bedforms and grain sorting phenomena: An overview of the theoretical analyses. Advances in Water Resources, 2012, 48, 113-124.	1.7	19
44	A simple model of waveâ€"current interaction. Journal of Fluid Mechanics, 2015, 775, 328-348.	1.4	19
45	Sediment transport under oscillatory flows. International Journal of Multiphase Flow, 2020, 133, 103454.	1.6	18
46	Flow and sediment transport induced by tide propagation: 1. The flat bottom case. Journal of Geophysical Research, 2005, 110, .	3.3	17
47	Flow and sediment transport induced by tide propagation: 2. The wavy bottom case. Journal of Geophysical Research, 2005, 110, .	3.3	16
48	Transition to turbulence at the bottom of a solitary wave. Journal of Fluid Mechanics, 2012, 709, 396-407.	1.4	16
49	Formation of rhythmic sorted bed forms on the continental shelf: an idealised model. Journal of Fluid Mechanics, 2011, 684, 475-508.	1.4	15
50	Bottom topography and roughness variations as triggering mechanisms to the formation of sorted bedforms. Geophysical Research Letters, 2010, 37, .	1.5	14
51	Pattern formation in a thin layer of sediment. Marine Geology, 2016, 376, 39-50.	0.9	14
52	On the influence of collinear surface waves on turbulence in smooth-bed open-channel flows. Journal of Fluid Mechanics, 2021, 924, .	1.4	14
53	On the formation of vortex pairs near orifices. Journal of Fluid Mechanics, 1983, 135, 111.	1.4	13
54	Sea waves and mass transport on a sloping beach. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 2053-2082.	1.0	13

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55	The formation of tidal sand waves: Fully three-dimensional versus shallow water approaches. Continental Shelf Research, 2011, 31, 990-996.	0.9	13
56	RANS modelling of the turbulent boundary layer under a solitary wave. Coastal Engineering, 2012, 60, 1-10.	1.7	12
57	Sediment sorting along tidal sand waves: A comparison between field observations and theoretical predictions. Continental Shelf Research, 2013, 63, 23-33.	0.9	12
58	Direct Numerical Simulation of Oscillatory Flow Over a Wavy, Rough, and Permeable Bottom. Journal of Geophysical Research: Oceans, 2018, 123, 1595-1611.	1.0	12
59	Modeling the turbulent boundary layer at the bottom of sea wave. Coastal Engineering, 2018, 141, 12-23.	1.7	12
60	Formation of tidal sand waves: Effects of the springâ€neap cycle. Journal of Geophysical Research, 2010, 115, .	3.3	11
61	Linear evolution of sandwave packets. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	10
62	Long bed waves in tidal seas: an idealized model. Journal of Fluid Mechanics, 2009, 636, 485-495.	1.4	10
63	Vortex Structures Generated by a Finite-span Oscillating Foil. , 2005, , .		9
64	Numerical experiments on the transient motions of a flapping foil. European Journal of Mechanics, B/Fluids, 2009, 28, 136-145.	1.2	9
65	A parameterization of the wavelength of tidal dunes. Earth Surface Processes and Landforms, 2011, 36, 1152-1161.	1.2	9
66	Revisiting the momentary stability analysis of the Stokes boundary layer. Journal of Fluid Mechanics, 2021, 919, .	1.4	9
67	Three-dimensional tidal sand waves. Journal of Fluid Mechanics, 2009, 618, 1-11.	1.4	8
68	Starved versus alluvial river bedforms: an experimental investigation. Earth Surface Processes and Landforms, 2020, 45, 1229-1239.	1.2	8
69	On the formation of periodic sandy mounds. Continental Shelf Research, 2017, 145, 68-79.	0.9	7
70	Sand banks of finite amplitude. Journal of Geophysical Research, 2008, 113, .	3.3	6
71	Direct numerical simulation of the oscillatory flow around a sphere resting on a rough bottom. Journal of Fluid Mechanics, 2017, 822, 235-266.	1.4	6
72	Non-cohesive and cohesive sediment transport due to tidal currents and sea waves: A case study. Continental Shelf Research, 2019, 183, 87-102.	0.9	6

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73	Subharmonic edge wave excitation by narrow-band, random incident waves. Journal of Fluid Mechanics, 2019, 868, .	1.4	6
74	Steady streaming induced by sea waves over rippled and rough beds. Continental Shelf Research, 2013, 65, 64-72.	0.9	5
75	A theoretical model of asymmetric wave ripples. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140112.	1.6	5
76	Dunes and alternate bars in tidal channels. Journal of Fluid Mechanics, 2011, 670, 558-580.	1.4	4
77	The boundary layer at the bottom of a solitary wave and implications for sediment transport. Progress in Oceanography, 2014, 120, 399-409.	1.5	4
78	The formation of tidal sand waves: steady versus unsteady approaches. Journal of Hydraulic Research/De Recherches Hydrauliques, 2009, 47, 213-222.	0.7	3
79	Turbulent spots in a Stokes boundary layer. Journal of Physics: Conference Series, 2011, 318, 032032.	0.3	3
80	Modeling Transverse Coastal Bedforms at Anna Maria Island (Florida). Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015837.	1.0	3
81	Steady Streaming Induced by Asymmetric Oscillatory Flows over a Rippled Bed. Journal of Marine Science and Engineering, 2020, 8, 142.	1.2	3
82	On the stability of the boundary layer at the bottom of propagating surface waves. Journal of Fluid Mechanics, 2021, 928, .	1.4	3
83	The dynamics of sliding, rolling and saltating sediments in oscillatory flows. European Journal of Mechanics, B/Fluids, 2022, 94, 246-262.	1.2	3
84	Direct Numerical Simulations of the Pulsating Flow over a Plane Wall. Journal of Marine Science and Engineering, 2020, 8, 893.	1.2	2
85	River Dunes and Tidal Sand Waves: Are They Generated by the Same Physical Mechanism?. Water Resources Research, 2020, 56, e2019WR026800.	1.7	2
86	Perspectives in Morphodynamics. , 2001, , 1-9.		2
87	MORPHOLOGICAL DEVELOPMENT OF SHALLOW SAND PITS. , 2005, , .		2
88	A numerical algorithm to compute the morphodynamics of shallow tidal seas. , 2007, , 673-679.		2
89	A three-dimensional model of sand bank formation. Ocean Dynamics, 2005, 55, 515-525.	0.9	1
90	Comments on â€˜Modelling the morphodynamic impact of offshore sandpit geometriesâ€™ by Roos et al. (2008). Coastal Engineering, 2008, 55, 1245-1246.	1.7	1

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91	ROLE OF VERTICAL PRESSURE GRADIENT IN WAVE BOUNDARY LAYERS. Coastal Engineering Proceedings, 2015, 1, 47.	0.1	1
92	Morphodynamic evolution of sand banks. , 2007, , 969-976.		1
93	Bifurcations in the Oscillatory Flow Over a Wavy Wall. Meccanica, 2002, 37, 305-311.	1.2	0
94	BOUNDARY LAYER FLOW AND BED SHEAR STRESS UNDER A SOLITARY WAVE. , 2009, , .		0
95	TURBULENT STEADY STREAMING UNDER SEA WAVES. , 2009, , .		0
96	The flow over bedload sheets and sorted bedforms. Continental Shelf Research, 2014, 85, 9-20.	0.9	0
97	EXPERIMENTAL INVESTIGATION ON WAVES AND CURRENTS CROSSING AT A RIGHT ANGLE. , 2005, , .		0
98	LINEAR EVOLUTION OF SAND WAVE PACKETS AND RELEVANCE TO OFFSHORE SAND EXTRACTION. , 2005, , .		0
99	Vorticityâ€"Stream Function Formulation for Turbulent Oscillatory Boundary Layer over the Sea Bottom. Journal of Waterway, Port, Coastal and Ocean Engineering, 2022, 148, .	0.5	0