Paolo Blondeaux

List of Publications by Citations

91 papers	2,135 citations	23 h-index	43 g-index
102 ext. papers	2,404 ext. citations	3.6 avg, IF	4.96 L-index

#	Paper	IF	Citations
91	A unified bar-bend theory of river meanders. *Journal of Fluid Mechanics*, **1985**, 157, 449-470	3.7	287
90	Sand ripples under sea waves Part 1. Ripple formation. *Journal of Fluid Mechanics*, **1990**, 218, 1	3.7	144
89	Numerical experiments on flapping foils mimicking fish-like locomotion. *Physics of Fluids*, **2005**, 17, 113601	4.4	86
88	MECHANICS OFCOASTALFORMS. *Annual Review of Fluid Mechanics*, **2001**, 33, 339-370	22	85
87	Sand ripples under sea waves Part 2. Finite-amplitude development. *Journal of Fluid Mechanics*, **1990**, 218, 19	3.7	84
86	Propulsive efficiency of oscillating foils. *European Journal of Mechanics, B/Fluids*, **2004**, 23, 255-278	2.4	74
85	Coherent structures in oscillatory boundary layers. *Journal of Fluid Mechanics*, **2003**, 474, 1-33	3.7	74
84	Three-dimensional oscillatory flow over steep ripples. *Journal of Fluid Mechanics*, **2000**, 412, 355-378	3.7	74
83	On the modeling of sand wave migration. *Journal of Geophysical Research*, **2004**, 109,		68
82	Vorticity dynamics in an oscillatory flow over a rippled bed. *Journal of Fluid Mechanics*, **1991**, 226, 257-289	3.7	67
81	On the formation of sand waves and sand banks. *Journal of Fluid Mechanics*, **2006**, 557, 1	3.7	64
80	Wall imperfections as a triggering mechanism for Stokes-layer transition. *Journal of Fluid Mechanics* , **1994**, 264, 107-135	3.7	49
79	Sand ripples under sea waves Part 3. Brick-pattern ripple formation. *Journal of Fluid Mechanics*, **1992**, 239, 23	3.7	45
78	The morphodynamics of tidal sand waves: A model overview. *Coastal Engineering*, **2008**, 55, 657-670	4.8	40
77	Sea ripple formation: the heterogeneous sediment case. *Coastal Engineering*, **1995**, 25, 237-253	4.8	40
76	A note on tidally generated sand waves. *Journal of Fluid Mechanics*, **2003**, 485, 171-190	3.7	34
75	Turbulent boundary layer under a solitary wave. *Journal of Fluid Mechanics*, **2008**, 615, 433-443	3.7	32

74	Turbulent boundary layer at the bottom of gravity waves. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **1987**, 25, 447-464	1.9	32
73	Steady streaming and sediment transport at the bottom of sea waves. *Journal of Fluid Mechanics*, **2012**, 697, 115-149	3.7	27
72	Turbulent spots in oscillatory boundary layers. *Journal of Fluid Mechanics*, **2011**, 685, 365-376	3.7	26
71	Grain sorting effects on the formation of tidal sand waves. *Journal of Fluid Mechanics*, **2009**, 629, 311-342	3.7	25
70	Migrating sand waves. *Ocean Dynamics*, **2003**, 53, 232-238	2.3	25
69	Migrating sea ripples. *European Journal of Mechanics, B/Fluids*, **2000**, 19, 285-301	2.4	24
68	Waves plus currents crossing at a right angle: Experimental investigation. *Journal of Geophysical Research*, **2006**, 111,		23
67	Coherent structures in an oscillatory separated flow: numerical experiments. *Journal of Fluid Mechanics*, **2004**, 518, 215-229	3.7	23
66	Chaotic Flow Generated by an Oscillating Foil.. *AIAA Journal*, **2005**, 43, 918-921	2.1	23
65	Modeling sand wave characteristics on the Belgian Continental Shelf and in the Calais-Dover Strait. *Journal of Geophysical Research*, **2007**, 112,		21
64	Crescentic bedforms in the nearshore region. *Journal of Fluid Mechanics*, **1999**, 381, 271-303	3.7	21
63	The nonlinear excitation of synchronous edge waves by a monochromatic wave normally approaching a plane beach. *Journal of Fluid Mechanics*, **1995**, 301, 251-268	3.7	21
62	BOUNDARY LAYER AND SEDIMENT DYNAMICS UNDER SEA WAVES. *Series on Quality, Reliability and Engineering Statistics*, **1999**, 133-190		20
61	Quasiperiodicity and phase locking route to chaos in the 2-D oscillatory flow around a circular cylinder. *Physics of Fluids A, Fluid Dynamics*, **1993**, 5, 1866-1868		20
60	Intermittent turbulence in a pulsating pipe flow. *Journal of Fluid Mechanics*, **2008**, 599, 51-79	3.7	18
59	Sea ripple formation: the turbulent boundary layer case. *Coastal Engineering*, **1995**, 25, 227-236	4.8	18
58	Sediment mixtures, coastal bedforms and grain sorting phenomena: An overview of the theoretical analyses. *Advances in Water Resources*, **2012**, 48, 113-124	4.7	17
57	Tidal sand wave formation: Influence of graded suspended sediment transport. *Journal of Geophysical Research*, **2009**, 114,		17

56	Mass transport under sea waves propagating over a rippled bed. *Journal of Fluid Mechanics*, **1996**, 314, 247-265	3.7	17
55	Characteristics of the boundary layer at the bottom of a solitary wave. *Coastal Engineering*, **2011**, 58, 206-213	4.8	16
54	A simple model of propulsive oscillating foils. *Ocean Engineering*, **2004**, 31, 883-899	3.9	16
53	A model to predict the migration of sand waves in shallow tidal seas. *Continental Shelf Research*, **2016**, 112, 31-45	2.4	15
52	A simple model of wave–current interaction. *Journal of Fluid Mechanics*, **2015**, 775, 328-348	3.7	15
51	Sand ripples under sea waves. Part 4. Tile ripple formation. *Journal of Fluid Mechanics*, **2001**, 447, 227-246	3.7	15
50	A route to chaos in an oscillatory flow: Feigenbaum scenario. *Physics of Fluids A, Fluid Dynamics*, **1991**, 3, 2492-2495		15
49	Flow and sediment transport induced by tide propagation: 1. The flat bottom case. *Journal of Geophysical Research*, **2005**, 110,		14
48	Flow and sediment transport induced by tide propagation: 2. The wavy bottom case. *Journal of Geophysical Research*, **2005**, 110,		14
47	Formation of rhythmic sorted bed forms on the continental shelf: an idealised model. *Journal of Fluid Mechanics*, **2011**, 684, 475-508	3.7	13
46	Bottom topography and roughness variations as triggering mechanisms to the formation of sorted bedforms. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	13
45	Sediment sorting along tidal sand waves: A comparison between field observations and theoretical predictions. *Continental Shelf Research*, **2013**, 63, 23-33	2.4	12
44	Sea waves and mass transport on a sloping beach. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2002**, 458, 2053-2082	2.4	12
43	On the formation of vortex pairs near orifices. *Journal of Fluid Mechanics*, **1983**, 135, 111	3.7	12
42	On the formation of sediment chains in an oscillatory boundary layer. *Journal of Fluid Mechanics*, **2016**, 789, 461-480	3.7	12
41	The formation of tidal sand waves: Fully three-dimensional versus shallow water approaches. *Continental Shelf Research*, **2011**, 31, 990-996	2.4	11
40	Interface-resolved direct numerical simulations of sediment transport in a turbulent oscillatory boundary layer. *Journal of Fluid Mechanics*, **2020**, 885,	3.7	11
39	Linear evolution of sandwave packets. *Journal of Geophysical Research*, **2005**, 110, n/a-n/a		10

38	Direct Numerical Simulation of Oscillatory Flow Over a Wavy, Rough, and Permeable Bottom. *Journal of Geophysical Research: Oceans*, **2018**, 123, 1595-1611	3.3	9
37	Long bed waves in tidal seas: an idealized model. *Journal of Fluid Mechanics*, **2009**, 636, 485-495	3.7	9
36	Transition to turbulence at the bottom of a solitary wave. *Journal of Fluid Mechanics*, **2012**, 709, 396-407	3.7	9
35	Pattern formation in a thin layer of sediment. *Marine Geology*, **2016**, 376, 39-50	3.3	9
34	Sediment transport under oscillatory flows. *International Journal of Multiphase Flow*, **2020**, 133, 103454	3.6	8
33	RANS modelling of the turbulent boundary layer under a solitary wave. *Coastal Engineering*, **2012**, 60, 1-10	4.8	8
32	Formation of tidal sand waves: Effects of the spring-neap cycle. *Journal of Geophysical Research*, **2010**, 115,		8
31	Numerical experiments on the transient motions of a flapping foil. *European Journal of Mechanics, B/Fluids*, **2009**, 28, 136-145	2.4	7
30	Three-dimensional tidal sand waves. *Journal of Fluid Mechanics*, **2009**, 618, 1-11	3.7	7
29	Modeling the turbulent boundary layer at the bottom of sea wave. *Coastal Engineering*, **2018**, 141, 12-23	4.8	7
28	A parameterization of the wavelength of tidal dunes. *Earth Surface Processes and Landforms*, **2011**, 36, 1152-1161	3.7	6
27	Vortex Structures Generated by a Finite-span Oscillating Foil **2005**,		6
26	Sand banks of finite amplitude. *Journal of Geophysical Research*, **2008**, 113,		5
25	Direct numerical simulation of the oscillatory flow around a sphere resting on a rough bottom. *Journal of Fluid Mechanics*, **2017**, 822, 235-266	3.7	4
24	The boundary layer at the bottom of a solitary wave and implications for sediment transport. *Progress in Oceanography*, **2014**, 120, 399-409	3.8	4
23	On the formation of periodic sandy mounds. *Continental Shelf Research*, **2017**, 145, 68-79	2.4	4
22	Steady streaming induced by sea waves over rippled and rough beds. *Continental Shelf Research*, **2013**, 65, 64-72	2.4	3
21	A theoretical model of asymmetric wave ripples. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2015**, 373,	3	3

20	Dunes and alternate bars in tidal channels. *Journal of Fluid Mechanics*, **2011**, 670, 558-580	3.7	3
19	The formation of tidal sand waves: steady versus unsteady approaches. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2009**, 47, 213-222	1.9	3
18	Subharmonic edge wave excitation by narrow-band, random incident waves. *Journal of Fluid Mechanics*, **2019**, 868,	3.7	2
17	Modeling Transverse Coastal Bedforms at Anna Maria Island (Florida). *Journal of Geophysical Research: Oceans*, **2020**, 125, e2019JC015837	3.3	2
16	Steady Streaming Induced by Asymmetric Oscillatory Flows over a Rippled Bed. *Journal of Marine Science and Engineering*, **2020**, 8, 142	2.4	2
15	Turbulent spots in a Stokes boundary layer. *Journal of Physics: Conference Series*, **2011**, 318, 032032	0.3	2
14	A numerical algorithm to compute the morphodynamics of shallow tidal seas **2007**, 673-679		2
13	Starved versus alluvial river bedforms: an experimental investigation. *Earth Surface Processes and Landforms*, **2020**, 45, 1229-1239	3.7	2
12	River Dunes and Tidal Sand Waves: Are They Generated by the Same Physical Mechanism?. *Water Resources Research*, **2020**, 56, e2019WR026800	5.4	1
11	Non-cohesive and cohesive sediment transport due to tidal currents and sea waves: A case study. *Continental Shelf Research*, **2019**, 183, 87-102	2.4	1
10	ROLE OF VERTICAL PRESSURE GRADIENT IN WAVE BOUNDARY LAYERS. *Coastal Engineering Proceedings*, **2015**, 1, 47	1.4	1
9	Comments on Modelling the morphodynamic impact of offshore sandpit geometries by Roos et al. (2008). *Coastal Engineering*, **2008**, 55, 1245-1246	4.8	1
8	A three-dimensional model of sand bank formation. *Ocean Dynamics*, **2005**, 55, 515-525	2.3	1
7	Morphodynamic evolution of sand banks **2007**, 969-976		1
6	Perspectives in Morphodynamics **2001**, 1-9		1
5	Direct Numerical Simulations of the Pulsating Flow over a Plane Wall. *Journal of Marine Science and Engineering*, **2020**, 8, 893	2.4	0
4	The dynamics of sliding, rolling and saltating sediments in oscillatory flows. *European Journal of Mechanics, B/Fluids*, **2022**, 94, 246-262	2.4	0
3	The flow over bedload sheets and sorted bedforms. *Continental Shelf Research*, **2014**, 85, 9-20	2.4	

2 Bifurcations in the Oscillatory Flow Over a Wavy Wall. *Meccanica*, **2002**, 37, 305-311 2.1

1 Stability Analyses to Predict Tidal Sedimentary Patterns **2022**, 335-348