

Claudio Lugni

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

1,728
citations

236925

25
h-index

302126

39
g-index

72
all docs

72
docs citations

72
times ranked

1077
citing authors

#	ARTICLE	IF	CITATIONS
1	Wave impact loads: The role of the flip-through. <i>Physics of Fluids</i> , 2006, 18, 122101.	4.0	145
2	Propagation of gravity waves through an SPH scheme with numerical diffusive terms. <i>Computer Physics Communications</i> , 2011, 182, 866-877.	7.5	131
3	A Novel Strategy for the Surface Current Determination From Marine X-Band Radar Data. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2010, 7, 231-235.	3.1	79
4	Numerical and Experimental Investigation of Nonlinear Shallow Water Sloshing. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2013, 14, 123-138.	1.0	60
5	Experimental and numerical comparisons of hydrodynamic responses for a combined wind and wave energy converter concept under operational conditions. <i>Renewable Energy</i> , 2016, 93, 87-100.	8.9	59
6	A 2D+t SPH model to study the breaking wave pattern generated by fast ships. <i>Journal of Fluids and Structures</i> , 2011, 27, 1199-1215.	3.4	58
7	A study of violent sloshing wave impacts using an improved SPH method. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2010, 48, 94-104.	1.7	57
8	Experimental and numerical investigation of a freefall wedge vertically entering the water surface. <i>Applied Ocean Research</i> , 2015, 51, 181-203.	4.1	55
9	Comparative experimental study of the survivability of a combined wind and wave energy converter in two testing facilities. <i>Ocean Engineering</i> , 2016, 111, 82-94.	4.3	50
10	3-D seakeeping analysis with water on deck and slamming. Part 1: Numerical solver. <i>Journal of Fluids and Structures</i> , 2012, 33, 127-147.	3.4	47
11	The sinking of the El Faro: predicting real world rogue waves during Hurricane Joaquin. <i>Scientific Reports</i> , 2017, 7, 11188.	3.3	46
12	Two-dimensional modal method for shallow-water sloshing in rectangular basins. <i>Journal of Fluid Mechanics</i> , 2012, 700, 419-440.	3.4	42
13	Evolution of the air cavity during a depressurized wave impact. I. The kinematic flow field. <i>Physics of Fluids</i> , 2010, 22, .	4.0	41
14	Evolution of the air cavity during a depressurized wave impact. II. The dynamic field. <i>Physics of Fluids</i> , 2010, 22, .	4.0	40
15	Hydroelastic slamming response in the evolution of a flip-through event during shallow-liquid sloshing. <i>Physics of Fluids</i> , 2014, 26, .	4.0	40
16	A novel numerical strategy for the simulation of irregular nonlinear waves and their effects on the dynamic response of offshore wind turbines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 255, 275-288.	6.6	37
17	Sloshing-induced slamming in screen-equipped rectangular tanks in shallow-water conditions. <i>Physics of Fluids</i> , 2015, 27, .	4.0	37
18	Unsteady hydrodynamic forces of solid objects vertically entering the water surface. <i>Physics of Fluids</i> , 2019, 31, .	4.0	36

#	ARTICLE	IF	CITATIONS
19	3-D seakeeping analysis with water on deck and slamming. Part 2: Experiments and physical investigation. <i>Journal of Fluids and Structures</i> , 2012, 33, 148-179.	3.4	35
20	A combined wind and wave energy-converter concept in survival mode: Numerical and experimental study in regular waves with a focus on water entry and exit. <i>Applied Ocean Research</i> , 2017, 63, 200-216.	4.1	35
21	Theoretical, numerical and experimental study on the problem of ergodicity and "practical ergodicity"™ with an application to parametric roll in longitudinal long crested irregular sea. <i>Ocean Engineering</i> , 2006, 33, 1007-1043.	4.3	32
22	Bathymetry Determination via X-Band Radar Data: A New Strategy and Numerical Results. <i>Sensors</i> , 2010, 10, 6522-6534.	3.8	32
23	REMOCEAN: A Flexible X-Band Radar System for Sea-State Monitoring and Surface Current Estimation. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2012, 9, 822-826.	3.1	32
24	Remocean System for the Detection of the Reflected Waves from the Costa Concordia Ship Wreck. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2014, 7, 3011-3018.	4.9	29
25	The role of the nonlinear wave kinematics on the global responses of an OWT in parked and operating conditions. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2013, 123, 363-376.	3.9	26
26	A Novel Approach Based on Marine Radar Data Analysis for High-Resolution Bathymetry Map Generation. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2014, 11, 234-238.	3.1	26
27	Control of power generated by a floating offshore wind turbine perturbed by sea waves. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 132, 109984.	16.4	25
28	Nonlinear vertical accelerations of a floating torus in regular waves. <i>Journal of Fluids and Structures</i> , 2016, 66, 589-608.	3.4	22
29	X-Band Marine Radar System for High-Speed Navigation Purposes: A Test Case on a Cruise Ship. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2014, 11, 244-248.	3.1	21
30	Influence of wind"waves energy transfer on the impulsive hydrodynamic loads acting on offshore wind turbines. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2011, 99, 767-775.	3.9	20
31	Free"surface tracking in 2D with the harmonic polynomial cell method: Two alternative strategies. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 113, 311-351.	2.8	19
32	A shallow-water sloshing model for wave breaking in rectangular tanks. <i>Journal of Fluid Mechanics</i> , 2014, 746, 437-465.	3.4	18
33	Generalized HPC method for the Poisson equation. <i>Journal of Computational Physics</i> , 2015, 299, 630-648.	3.8	18
34	Analysis of loads, motions and cavity dynamics during freefall wedges vertically entering the water surface. <i>Applied Ocean Research</i> , 2015, 51, 38-53.	4.1	18
35	Influence of yaw-roll coupling on the behavior of a FPSO: An experimental and numerical investigation. <i>Applied Ocean Research</i> , 2015, 51, 25-37.	4.1	16
36	Experimental studies of a damaged ship section in forced heave motion. <i>Applied Ocean Research</i> , 2019, 88, 254-274.	4.1	16

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37	Normalized Scalar Product Approach for Nearshore Bathymetric Estimation From X-Band Radar Images: An Assessment Based on Simulated and Measured Data. IEEE Journal of Oceanic Engineering, 2018, 43, 221-237.	3.8	15
38	3D domain decomposition for violent wave-ship interactions. International Journal for Numerical Methods in Engineering, 2013, 95, 661-684.	2.8	14
39	Can the water on deck influence the parametric roll of a FPSO? A numerical and experimental investigation. European Journal of Mechanics, B/Fluids, 2014, 47, 188-201.	2.5	14
40	Irregular Nonlinear Wave Simulation and Associated Loads on Offshore Wind Turbines. Journal of Offshore Mechanics and Arctic Engineering, 2015, 137, .	1.2	14
41	Experimental studies of a damaged ship section in beam sea waves. Applied Ocean Research, 2020, 97, 102090.	4.1	14
42	Scaling laws for the water entry of a three-dimensional body. Physics of Fluids, 2021, 33, .	4.0	13
43	Numerical and experimental study on the parametric roll resonance for a fishing vessel with and without forward speed. Applied Ocean Research, 2020, 101, 102272.	4.1	12
44	A depth semi-averaged model for coastal dynamics. Physics of Fluids, 2017, 29, .	4.0	11
45	Comparison of Nonlinear Wave-Loading Models on Rigid Cylinders in Regular Waves. Energies, 2019, 12, 4022.	3.1	11
46	Sloshing in a rotating liquid inside a closed sea cage for fish farming. Physics of Fluids, 2021, 33, .	4.0	11
47	On the role of added mass and vorticity release for self-propelled aquatic locomotion. Journal of Fluid Mechanics, 2021, 918, .	3.4	11
48	Towards a fully 3D domain-decomposition strategy for water-on-deck phenomena. Journal of Hydrodynamics, 2010, 22, 445-450.	3.2	10
49	A Simple Strategy to Mitigate the Aliasing Effect in X-band Marine Radar Data: Numerical Results for a 2D Case. Sensors, 2011, 11, 1009-1027.	3.8	10
50	Influence of motion coupling and nonlinear effects on parametric roll for a floating production storage and offloading platform. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140110.	3.4	10
51	The relevance of recoil and free swimming in aquatic locomotion. Journal of Fluids and Structures, 2021, 103, 103290.	3.4	10
52	Numerical modelling of free-surface flows in ship hydrodynamics. International Journal for Numerical Methods in Fluids, 2003, 43, 465-481.	1.6	6
53	Global force and moment in rectangular tanks through a modal method for wave sloshing. Journal of Fluids and Structures, 2018, 77, 1-18.	3.4	6
54	On a layer model for spilling breakers: A preliminary experimental analysis. European Journal of Mechanics, B/Fluids, 2019, 73, 24-47.	2.5	6

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55	A probabilistic approach for the quantification of prediction error in deterministic phase-resolved wave forecasting. <i>Ocean Engineering</i> , 2018, 163, 718-736.	4.3	5
56	Hydroelastic Challenges for Wave-Impact Phenomena in Sloshing Flow. , 2013, , .		4
57	Extra Strain Rates in an unsteady spilling breaking wave. <i>Scientific Reports</i> , 2018, 8, 13926.	3.3	3
58	Validation of a three-dimensional depth-semi-averaged model. <i>Physics of Fluids</i> , 2019, 31, .	4.0	3
59	The fish ability to accelerate and suddenly turn in fast maneuvers. <i>Scientific Reports</i> , 2022, 12, 4946.	3.3	3
60	Simulation of Nonlinear Waves on Offshore Wind Turbines and Associated Fatigue Load Assessment. , 2014, , .		2
61	Parametric Resonance of a Fishing Vessel With and Without Anti-Roll Tank: An Experimental and Numerical Study. , 2017, , .		2
62	Comparison of hydrodynamic loading models for vertical cylinders in nonlinear waves. <i>Procedia Engineering</i> , 2017, 199, 3224-3229.	1.2	2
63	Diffracted waves from the aground Costa Concordia cruise and detected by the Remocean system. , 2013, , .		1
64	Generation of bathymetric maps with high resolution through the analysis of nautical X-band radar images. , 2013, , .		1
65	Numerical Study of Parametric Roll on a Fishing Vessel. , 2013, , .		1
66	A Classification of Shallow Water Resonant Sloshing in a Rectangular Tank. , 2013, , .		1
67	Sensors for Coastal Monitoring. <i>Journal of Sensors</i> , 2016, 2016, 1-2.	1.1	1
68	Prediction Error Statistics in Deterministic Linear Ship Motion Forecasting. , 2018, , .		1
69	Sea-State Monitoring Via X-Band Marine Radar Images Sequences: A New Approach for an Accurate Surface Currents Estimation. , 2009, , .		0
70	Irregular Nonlinear Wave Simulation and Associated Loads on Offshore Wind Turbines. , 2013, , .		0
71	An Overview of the Minisymposium on Extreme Ship Dynamics Presented at the 2005 SIAM Conference on Applications of Dynamical Systems. <i>Marine Technology</i> , 2006, 43, 55-61.	0.2	0
72	Wind"Wave Loading and Response of OWT Monopiles in Rough Seas. <i>Lecture Notes in Civil Engineering</i> , 2019, , 507-518.	0.4	0