Michele Viviani

List of Publications by Year
in descending order

76	1,529	331670	345221
papers	citations	21 h-index	36 g-index

78	78	78	811
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Basic navigation, guidance and control ofÂanÂUnmanned Surface Vehicle. Autonomous Robots, 2008, 25, 349-365.	4.8	194
2	Pathâ€followingalgorithms and experiments for an unmanned surface vehicle. Journal of Field Robotics, 2009, 26, 669-688.	6.0	109
3	A study on the numerical prediction of propellers cavitating tip vortex. Ocean Engineering, 2014, 92, 137-161.	4.3	89
4	CPP propeller cavitation and noise optimization at different pitches with panel code and validation by cavitation tunnel measurements. Ocean Engineering, 2012, 53, 177-195.	4.3	63
5	Guidance of Unmanned Surface Vehicles: Experiments in Vehicle Following. IEEE Robotics and Automation Magazine, 2012, 19, 92-102.	2.0	60
6	Analysis of twin screw ships' asymmetric propeller behaviour by means of free running model tests. Ocean Engineering, 2013, 68, 47-64.	4.3	59
7	An extensive analysis of numerical ship self-propulsion prediction via a coupled BEM/RANS approach. Applied Ocean Research, 2017, 66, 55-78.	4.1	50
8	Design of ducted propeller nozzles through a RANSE-based optimization approach. Ocean Engineering, 2017, 145, 444-463.	4.3	40
9	Efficient and multi-objective cavitating propeller optimization: An application to a high-speed craft. Applied Ocean Research, 2017, 64, 31-57.	4.1	38
10	Analysis of the asymmetric behavior of propellerâ€“rudder system of twin screw ships by CFD. Ocean Engineering, 2017, 143, 269-281.	4.3	36
11	Comparison of experimental and numerical sloshing loads in partially filled tanks. Ships and Offshore Structures, 2011, 6, 15-43.	1.9	34
12	EFD and CFD Characterization of a CLT Propeller. International Journal of Rotating Machinery, 2012, 2012, 1-22.	0.8	33
13	Propeller modeling approaches for offâ€“design operative conditions. Ocean Engineering, 2019, 178, 283-305.	4.3	28
14	Propeller underwater radiated noise: A comparison between model scale measurements in two different facilities and full scale measurements. Applied Ocean Research, 2016, 56, 48-66.	4.1	26
15	Noise measurements of a cavitating propeller in different facilities: Results of the round robin test programme. Ocean Engineering, 2020, 213, 107599.	4.3	26
16	Design and Validation of Dynamic Positioning for Marine Systems: A Case Study. IEEE Journal of Oceanic Engineering, 2018, 43, 677-688.	3.8	25
17	Numerical Evaluation of Rudder Performance Behind a Propeller in Bollard Pull Condition. Journal of Marine Science and Application, 2018, 17, 153-164.	1.7	24
18	Predicting the cavitating marine propeller noise at design stage: A deep learning based approach. Ocean Engineering, 2020, 209, 107481.	4.3	24

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19	Method for estimating parameters of practical ship manoeuvring models based on the combination of RANSE computations and System Identification. Applied Ocean Research, 2015, 52, 274-294.	4.1	23
20	Two medium size cavitation tunnel hydro-acoustic benchmark experiment comparisons as part of a round robin test campaign. Ocean Engineering, 2017, 138, 179-207.	4.3	23
21	An efficient and robust approach to predict ship self-propulsion coefficients. Applied Ocean Research, 2019, 92, 101862.	4.1	22
22	Comparison of experimental and numerical loads on an impacting bow section. Ships and Offshore Structures, 2008, 3, 305-324.	1.9	21
23	EFD and CFD Design and Analysis of a Propeller in Decelerating Duct. International Journal of Rotating Machinery, 2012, 2012, 1-15.	0.8	21
24	Design and Construction of a Modular Pump-Jet Thruster for Autonomous Surface Vehicle Operations in Extremely Shallow Water. Journal of Marine Science and Engineering, 2019, 7, 222.	2.6	21
25	Z-Drive Escort Tug manoeuvrability model and simulation. Ocean Engineering, 2019, 191, 106461.	4.3	21
26	Numerical and Experimental Comparison of Ducted and Non-Ducted Propellers. Journal of Marine Science and Engineering, 2020, 8, 257.	2.6	20
27	Aspects of twin screw ships semi-empirical maneuvering models. Ocean Engineering, 2012, 48, 69-80.	4.3	19
28	SWAMP, an Autonomous Surface Vehicle expressly designed for extremely shallow waters. Ocean Engineering, 2020, 216, 108205.	4.3	19
29	Numerical Analysis of the Rudderâ€“Propeller Interaction. Journal of Marine Science and Engineering, 2020, 8, 990.	2.6	17
30	Investigation of Twin-Screw Naval Ships Maneuverability Behavior. Journal of Ship Research, 2011, 55, 221-248.	1.1	16
31	Numerical analysis of escort tug manoeuvrability characteristics. Applied Ocean Research, 2020, 97, 102075.	4.1	16
32	Assessment of the Manoeuvrability Characteristics of a Twin Shaft Naval Vessel Using an Open-Source CFD Code. Journal of Marine Science and Engineering, 2021, 9, 665.	2.6	16
33	Cavitation tunnel tests for â€œThe Princess Royalâ€•model propeller behind a 2-dimensional wake screen. Ocean Engineering, 2019, 172, 829-843.	4.3	15
34	CFD-based analyses for a slow speed manoeuvrability model. Journal of Marine Science and Technology, 2019, 24, 871-883.	2.9	15
35	A Practical Method for the Prediction of Planing Craft Motions in Regular and Irregular Waves. , 2008, , .		14
36	An improved wake description by higher order velocity statistical moments for single screw vessel. Ocean Engineering, 2015, 108, 181-190.	4.3	14

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37	Numerical modelling of propulsion, control and ship motions in 6 degrees of freedom. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2014, 228, 373-397.	0.5	13
38	Parametric Analysis of Ship Noise Spectra. IEEE Journal of Oceanic Engineering, 2017, 42, 424-438.	3.8	13
39	Aspects of the measurement of the acoustic transfer function in a cavitation tunnel. Applied Ocean Research, 2019, 87, 264-278.	4.1	13
40	Monitoring of Sea-Ice-Atmosphere Interface in the Proximity of Arctic Tidewater Glaciers: The Contribution of Marine Robotics. Remote Sensing, 2020, 12, 1707.	4.0	13
41	Experimental investigation of pressure pulses and radiated noise for two alternative designs of the propeller of a high-speed craft. Ocean Engineering, 2017, 132, 45-69.	4.3	12
42	The use of computational fluid dynamic technique in ship control design. Ships and Offshore Structures, 2021, 16, 31-45.	1.9	12
43	Interactive design and variation of hull shapes: pros and cons of different CAD approaches. International Journal on Interactive Design and Manufacturing, 2020, 14, 103-114.	2.2	10
44	Numerical analysis of escort tug manoeuvrability characteristics â€“ Part II: The skeg effect. Applied Ocean Research, 2020, 100, 102199.	4.1	10
45	Investigation of Twin-Screw Naval Ships Maneuverability Behavior. Journal of Ship Research, 2011, 55, 221-248.	1.1	10
46	An Investigation on the Discrepancies Between RANSE and BEM Approaches for the Prediction of Marine Propeller Unsteady Performances in Strongly Non-Homogeneous Wakes. , 2014, , .		9
47	Towards Posidonia Meadows Detection, Mapping and Automatic recognition using Unmanned Marine Vehicles. IFAC-PapersOnLine, 2017, 50, 12386-12391.	0.9	9
48	Development and assessment of CFD methods to calculate propeller and hull impact on the rudder inflow for a twin-screw ship. Applied Ocean Research, 2022, 125, 103227.	4.1	9
49	Design and analysis of counter-rotating propellers-comparison of numerical and experimental results. Journal of Hydrodynamics, 2010, 22, 553-559.	3.2	8
50	Model scale cavitation noise spectra prediction: Combining physical knowledge with data science. Ocean Engineering, 2019, 178, 185-203.	4.3	8
51	An All-Round Design-to-Simulation Approach of a New Z-Drive Escort Tug Class. Journal of Offshore Mechanics and Arctic Engineering, 2020, 142, .	1.2	8
52	Cavitation tunnel acoustic characterisation and application to model propeller radiated noise measurements at different functioning conditions. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2016, 230, 250-266.	0.5	7
53	A new concept of highly modular ASV for extremely shallow water applications. IFAC-PapersOnLine, 2019, 52, 181-186.	0.9	7
54	Experimental investigation of single blade loads by captive model tests in pure oblique flow. Ocean Engineering, 2020, 196, 106789.	4.3	7

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55	Simulation of the Dynamic Behaviour of a Codlag Propulsion Plant. , 2010, , .		7
56	Z-Drive Escort Tug manoeuvrability model and simulation, Part II: A full-scale validation. Ocean Engineering, 2022, 259, 111881.	4.3	7
57	Experimental investigation of single blade loads by captive model tests in pure oblique flow. Part II: Propeller in-plane loads and preliminary comparison of single blade loads during transient phases. Ocean Engineering, 2021, 234, 109149.	4.3	6
58	Additive Manufacturing Application to a Ship Propeller Model for Experimental Activity in the Cavitation Tunnel. Journal of Ship Production and Design, 2019, 35, 364-373.	0.4	5
59	Escort Tug Hydrodynamic Forces Estimation in a Design Framework: From Model Test to Manoeuvrability Simulation. , 2018, , .		4
60	Ship self-propulsion performance prediction by using OpenFOAM and different simplified propeller models. , 2018, , 195-203.		4
61	Numerical and Experimental Analysis of a CLT Propeller Cavitation Behavior. , 2012, , .		4
62	Experimental measurements and numerical simulations of underwater radiated noise from a model-scale propeller in uniform inflow. Ocean Engineering, 2022, 255, 111409.	4.3	4
63	Multi-Platforms and Multi-Sensors Integrated Survey for the Submerged and Emerged Areas. Journal of Marine Science and Engineering, 2022, 10, 753.	2.6	4
64	Direct scantling assessment of propeller blades. Applied Ocean Research, 2016, 59, 589-605.	4.1	3
65	Fatigue Strength Assessment of Propellers by Means of Weakly Coupled CFD and FEM Analyses. , 2014, , .		2
66	All Around Approach for the Design of a New Escort Tug Family. , 2018, , .		2
67	Evaluation of slamming loads using smoothed particle hydrodynamics and Reynolds-averaged Navierâ€"Stokes methods. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2009, 223, 17-32.	0.5	1
68	Hybrid Model for Cavitation Noise Spectra Prediction. , 2019, , .		1
69	Deep Learning for Cavitating Marine Propeller Noise Prediction at Design Stage. , 2020, , .		1
70	Assessment of different methods for the prediction of marine propellers induced pressures. , 2016, , 269-278.		1
71	A preliminary experiment combining marine robotics and citizenship engagement using imitation learning. IFAC-PapersOnLine, 2020, 53, 14576-14581.	0.9	1
72	2011 Best Paper Award. Ships and Offshore Structures, 2012, 7, 1-1.	1.9	0

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73	Model scale investigation of the effect of different speed reduction strategies on cavitating propeller radiated noise. , 2015, , .		0
74	Ship propeller side effects: pressure pulses and radiated noise. Noise Mapping, 2016, 3, .	1.8	0
75	A study on the influence of hull wake on model scale cavitation and noise tests for a fast twin screw vessel with inclined shaft. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2018, 232, 307-330.	0.5	0
76	A Kinetic Simulator For Distributed Mechanically Linked Marine Vehicles. IFAC-PapersOnLine, 2021, 54, 266-272.	0.9	0