Ignazio Maria Viola

List of Publications by Year
in descending order

54	1,065	394421	454955
papers	citations	19 h-index	30 g-index

60	60	60	1030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A separated vortex ring underlies the flight of the dandelion. Nature, 2018, 562, 414-418.	27.8	151
2	Sails trim optimisation using CFD and RBF mesh morphing. Computers and Fluids, 2014, 93, 46-60.	2.5	56
3	Face Coverings, Aerosol Dispersion and Mitigation of Virus Transmission Risk. IEEE Open Journal of Engineering in Medicine and Biology, 2021, 2, 26-35.	2.3	51
4	Wind direction forecasting with artificial neural networks and support vector machines. Ocean Engineering, 2015, 97, 65-73.	4.3	48
5	The dispersion of spherical droplets in sourceâ€“sink flows and their relevance to the COVID-19 pandemic. Physics of Fluids, 2020, 32, 083302.	4.0	42
6	The effect of permeability on the flow past permeable disks at low Reynolds numbers. Physics of Fluids, 2017, 29, .	4.0	39
7	Numerical investigation of vertical-axis tidal turbines with sinusoidal pitching blades. Ocean Engineering, 2018, 155, 75-87.	4.3	38
8	A numerical method for the design of ships with wind-assisted propulsion. Ocean Engineering, 2015, 105, 33-42.	4.3	36
9	Downwind sail aerodynamics: A CFD investigation with high grid resolution. Ocean Engineering, 2009, 36, 974-984.	4.3	35
10	Unsteady hydrodynamics of tidal turbine blades. Renewable Energy, 2020, 146, 843-855.	8.9	35
11	Face coverings and respiratory tract droplet dispersion. Royal Society Open Science, 2020, 7, 201663.	2.4	34
12	Design principles of hair-like structures as biological machines. Journal of the Royal Society Interface, 2018, 15, 20180206.	3.4	28
13	Unsteady hydrodynamics of a full-scale tidal turbine operating in large wave conditions. Renewable Energy, 2019, 143, 199-213.	8.9	28
14	Sail pressures from full-scale, wind-tunnel and numerical investigations. Ocean Engineering, 2011, 38, 1733-1743.	4.3	25
15	Upwind sail aerodynamics: A RANS numerical investigation validated with wind tunnel pressure measurements. International Journal of Heat and Fluid Flow, 2013, 39, 90-101.	2.4	22
16	Active and passive in-plane wall fluctuations in turbulent channel flows. Journal of Fluid Mechanics, 2019, 866, 689-720.	3.4	22
17	On the uncertainty of CFD in sail aerodynamics. International Journal for Numerical Methods in Fluids, 2013, 72, 1146-1164.	1.6	21
18	Detached Eddy Simulation of a sailing yacht. Ocean Engineering, 2014, 90, 93-103.	4.3	21

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19	The leading-edge vortex of swift wing-shaped delta wings. Royal Society Open Science, 2017, 4, 170077.	2.4	20
20	On the nonlinear dynamics of self-sustained limit-cycle oscillations in a flapping-foil energy harvester. Journal of Fluids and Structures, 2018, 83, 339-357.	3.4	20
21	Unsteady lift on a high-amplitude pitching aerofoil. Experiments in Fluids, 2021, 62, 1.	2.4	19
22	Sail aerodynamics: Understanding pressure distributions on upwind sails. Experimental Thermal and Fluid Science, 2011, 35, 1497-1504.	2.7	18
23	A real-time strategy-decision program for sailing yacht races. Ocean Engineering, 2017, 134, 129-139.	4.3	18
24	On risk attitude and optimal yacht racing tactics. Ocean Engineering, 2014, 90, 149-154.	4.3	17
25	Wind modelling with nested Markov chains. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 157, 118-124.	3.9	16
26	Wind-tunnel pressure measurements on model-scale rigid downwind sails. Ocean Engineering, 2014, 90, 84-92.	4.3	15
27	Dandelion pappus morphing is actuated by radially patterned material swelling. Nature Communications, 2022, 13, 2498.	12.8	15
28	Modelling of hull roughness. Ocean Engineering, 2019, 174, 31-42.	4.3	14
29	Full-scale pressure measurements on a Sparkman and Stephens 24-foot sailing yacht. Journal of Wind Engineering and Industrial Aerodynamics, 2010, 98, 800-807.	3.9	13
30	The leading-edge vortex of yacht sails. Ocean Engineering, 2018, 159, 552-562.	4.3	11
31	Morphing blades for tidal turbines: A theoretical study. Renewable Energy, 2022, 183, 802-819.	8.9	10
32	Unsteady load mitigation through a passive trailing-edge flap. Journal of Fluids and Structures, 2021, 106, 103352.	3.4	9
33	Sail Aerodynamics: On-Water Pressure Measurements on a Downwind Sail. Journal of Ship Research, 2012, 56, 197-206.	1.1	8
34	PROTEUS: A coupled iterative force-correction immersed-boundary multi-domain cascaded lattice Boltzmann solver. Computers and Mathematics With Applications, 2017, 74, 2348-2368.	2.7	8
35	PROTEUS: A coupled iterative force-correction immersed-boundary cascaded lattice Boltzmann solver for moving and deformable boundary applications. Computers and Mathematics With Applications, 2018, 75, 1330-1354.	2.7	8
36	The scales of the leading-edge separation bubble. Physics of Fluids, 2021, 33, 045101.	4.0	8

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37	Trim effect on the resistance of sailing planing hulls. Ocean Engineering, 2014, 88, 187-193.	4.3	7
38	A Geometrically Non-Linear Time-Domain Unsteady Lifting-Line Theory. , 2019, , .		7
39	Recent Advances in Numerical and Experimental Downwind Sail Aerodynamics. Journal of Sailing Technology, 2019, 4, 45-65.	0.5	7
40	Velocity of the falling dispersal units in Zelkova abelicea : remarkable evolutionary conservation within the relict tree genus. American Journal of Botany, 2020, 107, 1831-1838.	1.7	6
41	Usefulness of Inviscid Linear Unsteady Lifting-Line Theory for Viscous Large-Amplitude Problems. AIAA Journal, 2022, 60, 598-609.	2.6	6
42	The force generation mechanism of lifting surfaces with flow separation. Ocean Engineering, 2021, 239, 109749.	4.3	6
43	Recent Advances in Sailing Yacht Aerodynamics. Applied Mechanics Reviews, 2013, 65, .	10.1	5
44	The impact of electricity price forecast accuracy on the optimality of storage revenue. , 2014, , .		5
45	Optimal airfoilâ€™s shapes by high fidelity CFD. Aircraft Engineering and Aerospace Technology, 2018, 90, 1000-1011.	0.8	5
46	Turbulent flow around circular arcs. Physics of Fluids, 2022, 34, .	4.0	5
47	On the friction drag reduction mechanism of streamwise wall fluctuations. International Journal of Heat and Fluid Flow, 2020, 86, 108686.	2.4	4
48	Mitigation of rotor thrust fluctuations through passive pitch. Journal of Fluids and Structures, 2022, 112, 103599.	3.4	3
49	Sail Aerodynamics: On-Water Pressure Measurements on a Downwind Sail. Journal of Ship Research, 2012, 56, 197-206.	1.1	2
50	Underwater LED-based Lagrangian particle tracking velocimetry. Journal of Visualization, 0, , 1.	1.8	2
51	Moistureâ€Dependent Morphing Tunes the Dispersal of Dandelion Diaspores. SSRN Electronic Journal, 0, , .	0.4	1
52	Flying seeds. Current Biology, 2022, 32, R204-R205.	3.9	1
53	Analysis of Aerodynamic Indices for Racing Sailing Yachts: a Computational Study and Benchmark on up to 128 CPUs.. Lecture Notes in Computational Science and Engineering, 2010, , 61-70.	0.3	0
54	A Low Cost Oscillating Membrane for Underwater Applications at Low Reynolds Numbers. Journal of Marine Science and Engineering, 2022, 10, 77.	2.6	0