Francesco Viola

List of Publications by Year
in descending order

21 papers	264 citations	1040018 9 h-index	940516 16 g-index
24 all docs	24 docs citations	24 times ranked	236 citing authors

#	Article	IF	Citations
1	Fluidâ€“Structure-Electrophysiology interaction (FSEI) in the left-heart: A multi-way coupled computational model. European Journal of Mechanics, B/Fluids, 2020, 79, 212-232.	2.5	40
2	Hub vortex instability within wind turbine wakes: Effects of wind turbulence, loading conditions, and blade aerodynamics. Physical Review Fluids, 2016, 1, .	2.5	25
3	Mode selection in trailing vortices: harmonic response of the non-parallel Batchelor vortex. Journal of Fluid Mechanics, 2016, 790, 523-552.	3.4	22
4	Capillary hysteresis in sloshing dynamics: aÂweakly nonlinear analysis. Journal of Fluid Mechanics, 2018, 837, 788-818.	3.4	20
5	Parabolic RANS solver for lowâ€computationalâ€cost simulations of wind turbine wakes. Wind Energy, 2018, 21, 184-197.	4.2	19
6	FSEI-GPU: GPU accelerated simulations of the fluidâ€“structureâ€“electrophysiology interaction in the left heart. Computer Physics Communications, 2022, 273, 108248.	7.5	19
7	Theoretical framework to analyze the combined effect of surface tension and viscosity on the damping rate of sloshing waves. Physical Review Fluids, 2018, 3, .	2.5	17
8	Foam on troubled water: Capillary induced finite-time arrest of sloshing waves. Physics of Fluids, 2016, 28, 091701.	4.0	16
9	Left Ventricular Hemodynamics with an Implanted Assist Device: An In Vitro Fluid Dynamics Study. Annals of Biomedical Engineering, 2019, 47, 1799-1814.	2.5	13
10	A fast computational model for the electrophysiology of the whole human heart. Journal of Computational Physics, 2022, 457, 111084.	3.8	13
11	Reduced order model for optimization of power production from a wind farm. , 2016, , .		10
12	Modeling mitral valve stenosis: A parametric study on the stenosis severity level. Journal of Biomechanics, 2019, 84, 218-226.	2.1	9
13	Heart rate effects on the ventricular hemodynamics and mitral valve kinematics. Computers and Fluids, 2020, 197, 104359.	2.5	9
14	Direct numerical simulation of flapping flags in grid-induced turbulence. Physics of Fluids, 2021, 33, .	4.0	8
15	Method to determine the effective Î¶ potential in a microchannel with an embedded gate electrode. Electrophoresis, 2011, 32, 3295-3304.	2.4	7
16	Sloshing in a Hele-Shaw cell: experiments and theory. Journal of Fluid Mechanics, 2017, 831, .	3.4	6
17	Relaxation of capillary-gravity waves due to contact line nonlinearity: A projection method. Chaos, 2021, 31, 123124.	2.5	6
18	Sensitivity analysis of an electrophysiology model for the left ventricle. Journal of the Royal Society Interface, 2020, 17, 20200532.	3.4	4

#	Article	IF	Citations
19	The viscous torsional pendulum. Journal of Fluids and Structures, 2017, 72, 25-37.	3.4	1
20	On the electrophysiology of the atrial fast conduction system: an uncertain quantification study. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 264-278.	3.4	0
21	A low-Reynolds-number actuator driven by instability: rotating or oscillating. Nonlinear Dynamics, 2021, 106, 2005.	5.2	0