Raffaele Ponzini

List of Publications by Year
in descending order

33 papers	1,578 citations	430874 18 h-index	610901 24 g-index
33 all docs	33 docs citations	33 times ranked	1695 citing authors

#	Article	IF	Citations
1	VPP Coupling High-Fidelity Analyses and Analytical Formulations for Multihulls Sails and Appendages Optimization. Journal of Marine Science and Engineering, 2021, 9, 607.	2.6	1
2	What is needed to make low-density lipoprotein transport in human aorta computational models suitable to explore links to atherosclerosis? Impact of initial and inflow boundary conditions. Journal of Biomechanics, 2018, 68, 33-42.	2.1	18
3	Uncertainty propagation of phase contrast-MRI derived inlet boundary conditions in computational hemodynamics models of thoracic aorta. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 1104-1112.	1.6	38
4	Automatic extraction of three€dimensional thoracic aorta geometric model from phase contrast MRI for morphometric and hemodynamic characterization. Magnetic Resonance in Medicine, 2016, 75, 873-882.	3.0	15
5	A rational approach to defining principal axes of multidirectional wall shear stress in realistic vascular geometries, with application to the study of the influence of helical flow on wall shear stress directionality in aorta. Journal of Biomechanics, 2015, 48, 899-906.	2.1	71
6	Detached Eddy Simulation of a sailing yacht. Ocean Engineering, 2014, 90, 93-103.	4.3	21
7	Analysis of thoracic aorta hemodynamics using 3D particle tracking velocimetry and computational fluid dynamics. Journal of Biomechanics, 2014, 47, 3149-3155.	2.1	23
8	ZebraBeat: a flexible platform for the analysis of the cardiac rate in zebrafish embryos. Scientific Reports, 2014, 4, .	3.3	112
9	A Survey of Quantitative Descriptors of Arterial Flows. Lecture Notes in Computational Vision and Biomechanics, 2014, , 1-24.	0.5	3
10	Inflow boundary conditions for image-based computational hemodynamics: Impact of idealized versus measured velocity profiles in the human aorta. Journal of Biomechanics, 2013, 46, 102-109.	2.1	187
11	Experimental and Numerical Study of Ascending Aorta Hemodynamics Through 3D Particle Tracking Velocimetry and Computational Fluid Dynamics. , 2013, , .		0
12	Synthetic dataset generation for the analysis and the evaluation of image-based hemodynamics of the human aorta. Medical and Biological Engineering and Computing, 2012, 50, 145-154.	2.8	18
13	On the importance of blood rheology for bulk flow in hemodynamic models of the carotid bifurcation. Journal of Biomechanics, 2011, 44, 2427-2438.	2.1	93
14	Mechanistic insight into the physiological relevance of helical blood flow in the human aorta: an in vivo study. Biomechanics and Modeling in Mechanobiology, 2011, 10, 339-355.	2.8	190
15	On the Importance of Assumptions for Bulk Flow in Hemodynamic Models of the Carotid Bifurcation. , 2011, , .		0
16	On the Use of In Vivo Measured Flow Rates as Boundary Conditions for Image-Based Hemodynamic Models of the Human Aorta. , 2011, , .		1
17	Quantitative Analysis of Bulk Flow in Image-Based Hemodynamic Models of the Carotid Bifurcation: The Influence of Outflow Conditions as Test Case. Annals of Biomedical Engineering, 2010, 38, 3688-3705.	2.5	50
18	Womersley Number-Based Estimates of Blood Flow Rate in Doppler Analysis: In Vivo Validation by Means of Phase-Contrast MRI. IEEE Transactions on Biomedical Engineering, 2010, 57, 1807-1815.	4.2	41

#	ARTICLE	IF	CITATIONS
19	Womersley number-based estimation of flow rate with Doppler ultrasound: Sensitivity analysis and first clinical application. Computer Methods and Programs in Biomedicine, 2010, 98, 151-160.	4.7	12
20	Outflow Conditions for Image-Based Hemodynamic Models of the Carotid Bifurcation: Implications for Indicators of Abnormal Flow. Journal of Biomechanical Engineering, 2010, 132, 091005.	1.3	80
21	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
22	A Numerical Multiscale Study of the Haemodynamics in an Image-Based Model of Human Carotid Artery Bifurcation. , 2009, , .		0
23	Effects of Blood Rheology on Flow Topology and Blood-Vessel Interaction in Image-Based Carotid Bifurcation Numerical Model. , 2009, , .		0
24	In Vivo Quantification of Helical Blood Flow in Human Aorta by Time-Resolved Three-Dimensional Cine Phase Contrast Magnetic Resonance Imaging. Annals of Biomedical Engineering, 2009, 37, 516-531.	2.5	191
25	Blood damage safety of prosthetic heart valves. Shear-induced platelet activation and local flow dynamics: A fluid–structure interaction approach. Journal of Biomechanics, 2009, 42, 1952-1960.	2.1	66
26	Bubble Tracking Through Computational Fluid Dynamics in Arterial Line Filters for Cardiopulmonary Bypass. ASAIO Journal, 2009, 55, 438-444.	1.6	22
27	Prediction of Shear Induced Platelet Activation in Prosthetic Heart Valves by Integrating Fluid–Structure Interaction Approach and Lagrangian-Based Blood Damage Model. , 2009, , .		1
28	Computational Fluid Dynamics-Based Estimation of Blood Flow Rate in Doppler Analysis: In Vivo Validation by Means of Phase Contrast Magnetic Resonance Imaging. , 2009, , .		0
29	Numerical simulation of the dynamics of a bileaflet prosthetic heart valve using a fluid–structure interaction approach. Journal of Biomechanics, 2008, 41, 2539-2550.	2.1	119
30	Doppler derived quantitative flow estimate in coronary artery bypass graft: A computational multiscale model for the evaluation of the current clinical procedure. Medical Engineering and Physics, 2008, 30, 809-816.	1.7	19
31	Magnetic Vascular Positioner for Automatic Coronary Artery Bypass Grafting Does Not Significantly Increase the Risk of Failure Related to Local Fluid Dynamics: A Numeric Study. , 2007, , 721.		0
32	Helical flow as fluid dynamic signature for atherogenesis risk in aortocoronary bypass. A numeric study. Journal of Biomechanics, 2007, 40, 519-534.	2.1	157
33	Reliable CFD-based estimation of flow rate in haemodynamics measures. Ultrasound in Medicine and Biology, 2006, 32, 1545-1555.	1.5	29