Stefania Scarsoglio

List of Publications by Year
in descending order

47 papers	711 citations	516215 16 h-index	580395 25 g-index
48 all docs	48 docs citations	48 times ranked	750 citing authors

#	Article	IF	Citations
1	A computational analysis of atrial fibrillation effects on coronary perfusion across the different myocardial layers. Scientific Reports, 2022, 12, 841.	1.6	9
2	Cardiovascular Response to Posture Changes: Multiscale Modeling and in vivo Validation During Head-Up Tilt. Frontiers in Physiology, 2022, 13, 826989.	1.3	9
3	A review on turbulent and vortical flow analyses via complex networks. Physica A: Statistical Mechanics and Its Applications, 2021, 563, 125476.	1.2	37
4	Testing a Patient-Specific In-Silico Model to Noninvasively Estimate Central Blood Pressure. Cardiovascular Engineering and Technology, 2021, 12, 144-157.	0.7	3
5	Increased beat-to-beat variability of cerebral microcirculatory perfusion during atrial fibrillation: a near-infrared spectroscopy study. Europace, 2021, 23, 1219-1226.	0.7	18
6	Cerebral spatially resolved near-infrared spectroscopy (SRS-NIRS): paving the way for non-invasive assessment of cerebral hemodynamics during atrial fibrillation. Minerva Cardiology and Angiology, 2021, 69, 124-126.	0.4	1
7	Large-to-small scale frequency modulation analysis in wall-bounded turbulence via visibility networks. Journal of Fluid Mechanics, 2021, 918, .	1.4	15
8	Different Impact of Heart Rate Variability in the Deep Cerebral and Central Hemodynamics at Rest: An in silico Investigation. Frontiers in Neuroscience, 2021, 15, 600574.	1.4	1
9	Combining 4D Flow MRI and Complex Networks Theory to Characterize the Hemodynamic Heterogeneity in Dilated and Non-dilated Human Ascending Aortas. Annals of Biomedical Engineering, 2021, 49, 2441-2453.	1.3	6
10	A review of multiscale 0Dâ€“1D computational modeling of coronary circulation with applications to cardiac arrhythmias. Reviews in Cardiovascular Medicine, 2021, 22, 1461.	0.5	2
11	108â€ƒAtrial fibrillation effects on coronary perfusion across the different myocardial layers: a computational analysis. European Heart Journal Supplements, 2021, 23, .	0.0	0
12	Network analysis of Reynolds number scaling in wall-bounded Lagrangian mixing. Physical Review Fluids, 2021, 6, .	1.0	4
13	Cardiovascular deconditioning during long-term spaceflight through multiscale modeling. Npj Microgravity, 2020, 6, 27.	1.9	42
14	Wall-induced anisotropy effects on turbulent mixing in channel flow: A network-based analysis. Physical Review E, 2020, 102, 043109.	0.8	7
15	Exploring wall shear stress spatiotemporal heterogeneity in coronary arteries combining correlation-based analysis and complex networks with computational hemodynamics. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2020, 234, 1209-1222.	1.0	7
16	A Closed-Loop Multiscale Model of the Cardiovascular System: Application to Heart Pacing and Open-Loop Response. IFMBE Proceedings, 2020, , 577-585.	0.2	3
17	To What Extent Does Heart Rate Alter the Cerebral Hemodynamic Patterns During Atrial Fibrillation?. IFMBE Proceedings, 2020, , 108-116.	0.2	0
18	Spatiotemporal Hemodynamic Complexity in Carotid Arteries: an Integrated Computational Hemodynamics & Complex Networks-Based Approach. IEEE Transactions on Biomedical Engineering, 2019, 67, 1-1.	2.5	5

#	Article	IF	Citations
19	Impaired coronary blood flow at higher heart rates during atrial fibrillation: Investigation via multiscale modelling. Computer Methods and Programs in Biomedicine, 2019, 175, 95-102.	2.6	21
20	Higher ventricular rate during atrial fibrillation relates to increased cerebral hypoperfusions and hypertensive events. Scientific Reports, 2019, 9, 3779.	1.6	41
21	Lagrangian network analysis of turbulent mixing. Journal of Fluid Mechanics, 2019, 865, 546-562.	1.4	22
22	Experimental investigation of vertical turbulent transport of a passive scalar in a boundary layer: Statistics and visibility graph analysis. Physical Review Fluids, 2019, 4, .	1.0	21
23	Visibility graph analysis of wall turbulence time-series. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1-11.	0.9	37
24	Effects of atrial fibrillation on the arterial fluid dynamics: a modelling perspective. Meccanica, 2018, 53, 3251-3267.	1.2	11
25	Spatial characterization of turbulent channel flow via complex networks. Physical Review E, 2018, 98, 013107.	0.8	15
26	Alteration of cerebrovascular haemodynamic patterns due to atrial fibrillation: an <i>in silico</i> investigation. Journal of the Royal Society Interface, 2017, 14, 20170180.	1.5	21
27	From time-series to complex networks: Application to the cerebrovascular flow patterns in atrial fibrillation. Chaos, 2017, 27, 093107.	1.0	24
28	A Computational Study on the Relation between Resting Heart Rate and Atrial Fibrillation Hemodynamics under Exercise. PLoS ONE, 2017, 12, e0169967.	1.1	18
29	Complex Networks Unveiling Spatial Patterns in Turbulence. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650223.	0.7	31
30	Transient cerebral hypoperfusion and hypertensive events during atrial fibrillation: a plausible mechanism for cognitive impairment. Scientific Reports, 2016, 6, 28635.	1.6	68
31	Fluid dynamics of heart valves during atrial fibrillation: a lumped parameter-based approach. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1060-1068.	0.9	18
32	Computational fluid dynamics modelling of left valvular heart diseases during atrial fibrillation. PeerJ, 2016, 4, e2240.	0.9	15
33	Parametric perturbative study of the supercritical cross-flow boundary layer. International Journal of Heat and Fluid Flow, 2015, 52, 64-71.	1.1	3
34	Rate Control Management of Atrial Fibrillation: May a Mathematical Model Suggest an Ideal Heart Rate?. PLoS ONE, 2015, 10, e0119868.	1.1	21
35	Impact of atrial fibrillation on the cardiovascular system through a lumped-parameter approach. Medical and Biological Engineering and Computing, 2014, 52, 905-920.	1.6	38
36	Resilience, Self-Organization, Complexity and Pattern Formation. , 2014, , 55-84.		4

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37	Approaches to Modelling Ecogeomorphic Systems. , 2014, , 171-209.		2
38	Climate Dynamics: A Network-Based Approach for the Analysis of Global Precipitation. PLoS ONE, 2013, 8, e71129.	1.1	57
39	Spatio-temporal stochastic resonance induces patterns in wetland vegetation dynamics. Ecological Complexity, 2012, 10, 93-101.	1.4	13
40	Spatial pattern formation induced by Gaussian white noise. Mathematical Biosciences, 2011, 229, 174-184.	0.9	17
41	Collective behaviour of linear perturbation waves observed through the energy density spectrum. Journal of Physics: Conference Series, 2011, 318, 032004.	0.3	0
42	Role of long waves in the stability of the plane wake. Physical Review E, 2010, 81, 036326.	0.8	6
43	The first as a possible measure of the entrainment length in a 2D steady wake. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 1159-1164.	0.9	4
44	An Exploratory Analysis of the Transient and Longâ€Term Behavior of Small Threeâ€Dimensional Perturbations in the Circular Cylinder Wake. Studies in Applied Mathematics, 2009, 123, 153-173.	1.1	7
45	Linear generation of multiple time scales by 3D unstable perturbations. Springer Proceedings in Physics, 2009, , 155-158.	0.1	0
46	A synthetic perturbative hypothesis for multiscale analysis of convective wake instability. Physics of Fluids, 2006, 18, 054105.	1.6	6
47	Effects of Atrial Fibrillation on the Coronary Flow at Different Heart Rates: A Computational Approach. , 0, , .		0