Yun-Long Huo

List of Publications by Year
in descending order

94 papers	1,987 citations	236833 25 h-index	289141 40 g-index
99 all docs	99 docs citations	99 times ranked	1725 citing authors

#	Article	IF	Citations
1	Intraspecific scaling laws of vascular trees. Journal of the Royal Society Interface, 2012, 9, 190-200.	1.5	117
2	Flow patterns in three-dimensional porcine epicardial coronary arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H2959-H2970.	1.5	88
3	A Scaling Law of Vascular Volume. Biophysical Journal, 2009, 96, 347-353.	0.2	85
4	A hybrid one-dimensional/Womersley model of pulsatile blood flow in the entire coronary arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2623-H2633.	1.5	76
5	The Flow Field along the Entire Length of Mouse Aorta and Primary Branches. Annals of Biomedical Engineering, 2008, 36, 685-699.	1.3	76
6	Pulsatile blood flow in the entire coronary arterial tree: theory and experiment. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1074-H1087.	1.5	73
7	A validated predictive model of coronary fractional flow reserve. Journal of the Royal Society Interface, 2012, 9, 1325-1338.	1.5	73
8	Accuracy of computational pressure-fluid dynamics applied to coronary angiography to derive fractional flow reserve: FLASH FFR. Cardiovascular Research, 2020, 116, 1349-1356.	1.8	68
9	Effects of vessel compliance on flow pattern in porcine epicardial right coronary arterial tree. Journal of Biomechanics, 2009, 42, 594-602.	0.9	65
10	Which diameter and angle rule provides optimal flow patterns in a coronary bifurcation?. Journal of Biomechanics, 2012, 45, 1273-1279.	0.9	63
11	Optimal diameter of diseased bifurcation segment: a practical rule for percutaneous coronary intervention. EuroIntervention, 2012, 7, 1310-1316.	1.4	56
12	Diameter asymmetry of porcine coronary arterial trees: structural and functional implications. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H714-H723.	1.5	48
13	Simplified Models of Non-Invasive Fractional Flow Reserve Based on CT Images. PLoS ONE, 2016, 11, e0153070.	1.1	44
14	Coronary Angiography-Derived Index of Microvascular Resistance. Frontiers in Physiology, 2020, 11, 605356.	1.3	44
15	The Scaling of Blood Flow Resistance: From a Single Vessel to the Entire Distal Tree. Biophysical Journal, 2009, 96, 339-346.	0.2	42
16	Biophysical Model of the Spatial Heterogeneity of Myocardial Flow. Biophysical Journal, 2009, 96, 4035-4043.	0.2	42
17	Capillary Perfusion and Wall Shear Stress Are Restored in the Coronary Circulation of Hypertrophic Right Ventricle. Circulation Research, 2007, 100, 273-283.	2.0	41
18	Prognostic impact of coronary microvascular dysfunction in patients with myocardial infarction with non-obstructive coronary arteries. European Journal of Internal Medicine, 2021, 92, 79-85.	1.0	40

#	Article	IF	Citations
19	Biaxial vasoactivity of porcine coronary artery. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H2058-H2063.	1.5	38
20	Microstructural constitutive model of active coronary media. Biomaterials, 2013, 34, 7575-7583.	5.7	38
21	Hemodynamic analysis of patientâ€specific coronary artery tree. International Journal for Numerical Methods in Biomedical Engineering, 2015, 31, e02708.	1.0	38
22	Morphometric and hemodynamic analysis of atherosclerotic progression in human carotid artery bifurcations. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H639-H647.	1.5	38
23	Scaling laws of coronary circulation in health and disease. Journal of Biomechanics, 2016, 49, 2531-2539.	0.9	29
24	Hemodynamics of left internal mammary artery bypass graft: Effect of anastomotic geometry, coronary artery stenosis, and postoperative time. Journal of Biomechanics, 2016, 49, 645-652.	0.9	29
25	A novel system for the reconstruction of a coronary artery lumen profile in real time: a preclinical validation. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H485-H492.	1.5	27
26	Structure-function relation in the coronary artery tree: from fluid dynamics to arterial bifurcations. EuroIntervention, 2010, 6, J10-J15.	1.4	27
27	Effect of compliance and hematocrit on wall shear stress in a model of the entire coronary arterial tree. Journal of Applied Physiology, 2009, 107, 500-505.	1.2	26
28	Two-layer model of coronary artery vasoactivity. Journal of Applied Physiology, 2013, 114, 1451-1459.	1.2	24
29	Three-dimensional Marangoni convection in electrostatically positioned droplets under microgravity. International Journal of Heat and Mass Transfer, 2004, 47, 3533-3547.	2.5	22
30	Numerical investigation of blood flow in three-dimensional porcine left anterior descending artery with various stenoses. Computers in Biology and Medicine, 2014, 47, 130-138.	3.9	22
31	Hemodynamics in Coronary Arterial Tree of Serial Stenoses. PLoS ONE, 2016, 11, e0163715.	1.1	21
32	CT-based Diagnosis of Diffuse Coronary Artery Disease on the Basis of Scaling Power Laws. Radiology, 2013, 268, 694-701.	3.6	20
33	Growth, ageing and scaling laws of coronary arterial trees. Journal of the Royal Society Interface, 2015, 12, 20150830.	1.5	20
34	Mild Anastomotic Stenosis in Patient-Specific CABG Model May Enhance Graft Patency: A New Hypothesis. PLoS ONE, 2013, 8, e73769.	1.1	20
35	Compensatory remodeling of coronary microvasculature maintains shear stress in porcine left-ventricular hypertrophy. Journal of Hypertension, 2012, 30, 608-616.	0.3	19
36	Numerical Simulation and Clinical Implications of Stenosis in Coronary Blood Flow. BioMed Research International, 2014, 2014, 1-10.	0.9	19

#	Article	IF	Citations
37	Morphometric, Hemodynamic, and Multi-Omics Analyses in Heart Failure Rats with Preserved Ejection Fraction. International Journal of Molecular Sciences, 2020, 21, 3362.	1.8	18
38	The Structure-function remodeling in rabbit hearts of myocardial infarction. Physiological Reports, 2017, 5, e13311.	0.7	14
39	Morphometry and hemodynamics of coronary artery aneurysms caused by atherosclerosis. Atherosclerosis, 2019, 284, 187-193.	0.4	14
40	Calcium waves initiating from the anomalous subdiffusive calcium sparks. Journal of the Royal Society Interface, 2014, 11, 20130934.	1.5	13
41	Bifurcation Asymmetry of Small Coronary Arteries in Juvenile and Adult Mice. Frontiers in Physiology, 2018, 9, 519.	1.3	13
42	IVUS Validation of Patient Coronary Artery Lumen Area Obtained from CT Images. PLoS ONE, 2014, 9, e86949.	1.1	13
43	Integrated Modeling of Microwave Food Processing and Comparison with Experimental Measurements. Journal of Microwave Power and Electromagnetic Energy, 2004, 39, 153-165.	0.4	12
44	Cyclic Stretch Induces Vascular Smooth Muscle Cells to Secrete Connective Tissue Growth Factor and Promote Endothelial Progenitor Cell Differentiation and Angiogenesis. Frontiers in Cell and Developmental Biology, 2020, 8, 606989.	1.8	12
45	Surface Deformation and Convection in Electrostatically-Positioned Droplets of Immiscible Liquids Under Microgravity. Journal of Heat Transfer, 2006, 128, 520-529.	1.2	11
46	Passive and Active Triaxial Wall Mechanics in a Two-Layer Model of Porcine Coronary Artery. Scientific Reports, 2017, 7, 13911.	1.6	11
47	Fluidâ€“Structure Interaction (FSI) Modeling in the Cardiovascular System. , 2010, , 141-157.		11
48	Effect of blood pressure on vascular hemodynamics in acute tachycardia. Journal of Applied Physiology, 2010, 109, 1619-1627.	1.2	10
49	A comparison of postoperative morphometric and hemodynamic changes between saphenous vein and left internal mammary artery grafts. Physiological Reports, 2017, 5, e13487.	0.7	10
50	Hepatic Hemangiomas Alter Morphometry and Impair Hemodynamics of the Abdominal Aorta and Primary Branches From Computer Simulations. Frontiers in Physiology, 2018, 9, 334.	1.3	10
51	Cardiac wall mechanics analysis in hypertension-induced heart failure rats with preserved ejection fraction. Journal of Biomechanics, 2020, 98, 109428.	0.9	10
52	Speckle tracking echocardiography could detect the difference of pressure overload-induced myocardial remodelling between young and adult rats. Journal of the Royal Society Interface, 2020, 17, 20190808.	1.5	10
53	Interplay of Proximal Flow Confluence and Distal Flow Divergence in Patient-Specific Vertebrobasilar System. PLoS ONE, 2016, 11, e0159836.	1.1	10
54	A novel stochastic reaction-diffusion model of Ca 2+ blink in cardiac myocytes. Science Bulletin, 2017, 62, 5-8.	4.3	9

#	Article	IF	Citations
55	Inhalation of Ultrafine Zinc Particles Impaired Cardiovascular Functions in Hypertension-Induced Heart Failure Rats With Preserved Ejection Fraction. Frontiers in Bioengineering and Biotechnology, 2020, 8, 13.	2.0	9
56	Circular RNA UVRAG Mediated by Alternative Splicing Factor NOVA1 Regulates Adhesion and Migration of Vascular Smooth Muscle Cells. Genes, 2021, 12, 418.	1.0	9
57	Compensatory enlargement of Ossabaw miniature swine coronary arteries in diffuse atherosclerosis. IJC Heart and Vasculature, 2015, 6, 4-11.	0.6	8
58	Remodeling of left circumflex coronary arterial tree in pacing-induced heart failure. Journal of Applied Physiology, 2015, 119, 404-411.	1.2	8
59	Morphometry and hemodynamics of posterior communicating artery aneurysms: Ruptured versus unruptured. Journal of Biomechanics, 2018, 76, 35-44.	0.9	8
60	Vertebral Artery Stenoses Contribute to the Development of Diffuse Plaques in the Basilar Artery. Frontiers in Bioengineering and Biotechnology, 2020, 8, 168.	2.0	8
61	Boundary/Finite Element Modeling of Three-Dimensional Electromagnetic Heating During Microwave Food Processing. Journal of Heat Transfer, 2005, 127, 1159-1166.	1.2	7
62	Conductance catheter measurements of lumen area of stenotic coronary arteries: theory and experiment. Journal of Applied Physiology, 2011, 111, 758-765.	1.2	7
63	Acute Tachycardia Increases Aortic Distensibility, but Reduces Total Arterial Compliance Up to a Moderate Heart Rate. Frontiers in Physiology, 2018, 9, 1634.	1.3	7
64	Sickle Cell Anemia Mediates Carotid Artery Expansive Remodeling That Can Be Prevented by Inhibition of JNK (c-Jun N-Terminal Kinase). Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, 1220-1230.	1.1	7
65	New method to measure coronary velocity and coronary flow reserve. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H21-H28.	1.5	6
66	Keystone species can be identified based on motif centrality. Ecological Indicators, 2020, 110, 105877.	2.6	6
67	Coronary Angiography-Derived Diastolic Pressure Ratio. Frontiers in Bioengineering and Biotechnology, 2020, 8, 596401.	2.0	6
68	Computed tomography-based diagnosis of diffuse compensatory enlargement of coronary arteries using scaling power laws. Journal of the Royal Society Interface, 2013, 10, 20121015.	1.5	5
69	Intraspecific scaling laws are preserved in ventricular hypertrophy but not in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H1108-H1117.	1.5	5
70	Effects of rogue ryanodine receptors on Ca ²⁺ sparks in cardiac myocytes. Royal Society Open Science, 2018, 5, 171462.	1.1	5
71	Short-Term Inhalation of Ultrafine Zinc Particles Could Alleviate Cardiac Dysfunctions in Rats of Myocardial Infarction. Frontiers in Bioengineering and Biotechnology, 2021, 9, 646533.	2.0	5
72	A Magnetic Device to Eliminate Endograft Migration: Theory and Experiment. Annals of Biomedical Engineering, 2008, 36, 57-65.	1.3	4

#	Article	IF	Citations
73	The Interplay of Rogue and Clustered Ryanodine Receptors Regulates Ca2+ Waves in Cardiac Myocytes. Frontiers in Physiology, 2018, 9, 393.	1.3	4
74	A comparison of passive and active wall mechanics between elastic and muscular arteries of juvenile and adult rats. Journal of Biomechanics, 2021, 126, 110642.	0.9	4
75	Morphometric and hemodynamic parameter dataset for coronary artery aneurysms caused by atherosclerosis. Data in Brief, 2019, 25, 104293.	0.5	3
76	Mechanical difference of left ventricle between rabbits of myocardial infarction and hypertrophy. Journal of Biomechanics, 2020, 111, 110021.	0.9	3
77	Age-dependent characterization of carotid and cerebral artery geometries in a transgenic mouse model of sickle cell anemia using ultrasound and microcomputed tomography. Blood Cells, Molecules, and Diseases, 2020, 85, 102486.	0.6	3
78	Intra- and inter-specific scaling laws of plants and animals. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 321-330.	1.5	3
79	Coronary <scp>angiographyâ€derived</scp> contrast fractional flow reserve. Catheterization and Cardiovascular Interventions, 2022, 99, 763-771.	0.7	3
80	Platelet-derived microvesicles regulate vascular smooth muscle cell energy metabolism via PRKAA after intimal injury. Journal of Cell Science, 2022, 135, .	1.2	3
81	Area stenosis associated with non-invasive fractional flow reserve obtained from coronary CT images. , 2013, 2013, 3865-8.		2
82	Flow velocity is relatively uniform in the coronary sinusal venous tree: structure-function relation. Journal of Applied Physiology, 2017, 122, 60-67.	1.2	2
83	Computation and Visualizaion of 3-D Marangoni and Magnetically-Driven Flows in Droplets. , 2003, , .		2
84	COMPUTER VISUALIZATION OF FLUID CIRCULATION IN ANNULI OF HEATED ROTATING CYLINDERS OF LOW PRANDTL NUMBER FLUIDS. International Journal of Computational Engineering Science, 2004, 05, 357-378.	0.1	1
85	Validation of 3-D Electromagnetic-Thermal Model for Microwave Food Processing. , 2005, , 781.		1
86	Governing Equations of Blood Flow and Respective Numerical Methods. , 2010, , 121-139.		1
87	Effects of Stenosis on the Porcine Left Anterior Descending Arterial Tree. , 2013, 2013, 3869-72.		1
88	Boundary/Finite Edge Element Modeling of 3-D Microwave Thermal Food Processing. , 2004, , .		1
89	Long-Term Inhalation of Ultrafine Zinc Particles Deteriorated Cardiac and Cardiovascular Functions in Rats of Myocardial Infarction. Frontiers in Physiology, 0, 13, .	1.3	1
90	Electromagnetic-Thermal Responses of Tissues During Microwave Hyperthermia. , 2005, , 619.		0

#	Article	IF	Citations
91	Stability of the Droplet in Magnetic Levitation Mechanism. , 2006, , 517.		0
92	Structureâ€"Function Relations in the Coronary Vasculature. , 2016, , 175-202.		0
93	Coronary Blood Flow Is Increased in RV Hypertrophy, but the Shape of Normalized Waves Is Preserved Throughout the Arterial Tree. Frontiers in Physiology, 2018, 9, 675.	1.3	0
94	Hemodynamics Simulation in the Left Anterior Descending Coronary Artery Tree. , 2019, , 257-281.		0