X Yun Xu

List of Publications by Year
in descending order

160 papers	5,562 citations	70961 41 h-index	110170 64 g-index
161 all docs	161 docs citations	161 times ranked	4599 citing authors

#	Article	IF	Citations
1	Blood flow and vessel mechanics in a physiologically realistic model of a human carotid arterial bifurcation. Journal of Biomechanics, 2000, 33, 975-984.	0.9	253
2	MRI and CFD studies of pulsatile flow in healthy and stenosed carotid bifurcation models. Journal of Biomechanics, 2004, 37, 679-687.	0.9	214
3	Numerical investigation of physiologically realistic pulsatile flow through arterial stenosis. Journal of Biomechanics, 2001, 34, 1229-1242.	0.9	156
4	Reconstruction of blood flow patterns in a human carotid bifurcation: A combined CFD and MRI study. Journal of Magnetic Resonance Imaging, 2000, 11, 299-311.	1.9	147
5	Curvature and tortuosity of the superficial femoral artery: a possible risk factor for peripheral arterial disease. Journal of Applied Physiology, 2006, 101, 1412-1418.	1.2	119
6	On the choice of outlet boundary conditions for patient-specific analysis of aortic flow using computational fluid dynamics. Journal of Biomechanics, 2017, 60, 15-21.	0.9	116
7	Inter-individual variations in wall shear stress and mechanical stress distributions at the carotid artery bifurcation of healthy humans. Journal of Biomechanics, 2002, 35, 1367-1377.	0.9	114
8	Fluidâ€“structure interaction analysis of a patientâ€specific right coronary artery with physiological velocity and pressure waveforms. Communications in Numerical Methods in Engineering, 2009, 25, 565-580.	1.3	111
9	Analysis of Flow Patterns in a Patient-Specific Aortic Dissection Model. Journal of Biomechanical Engineering, 2010, 132, 051007.	0.6	111
10	Kissing Balloon or Sequential Dilation of the Side Branch and Main Vessel for Provisional Stenting of Bifurcations. JACC: Cardiovascular Interventions, 2012, 5, 47-56.	1.1	111
11	The effect of feed spacer geometry on membrane performance and concentration polarisation based on 3D CFD simulations. Journal of Membrane Science, 2017, 527, 78-91.	4.1	106
12	Incidence and risk factors for retrograde type A dissection and stent graft-induced new entry after thoracic endovascular aortic repair. Journal of Vascular Surgery, 2018, 67, 1026-1033.e2.	0.6	101
13	Fluid-Wall Modelling of Mass Transfer in an Axisymmetric Stenosis: Effects of Shear-Dependent Transport Properties. Annals of Biomedical Engineering, 2006, 34, 1119-1128.	1.3	90
14	High Levels of 18F-FDG Uptake in Aortic Aneurysm Wall are Associated with High Wall Stress. European Journal of Vascular and Endovascular Surgery, 2010, 39, 295-301.	0.8	90
15	Mathematical modeling of thrombus formation in idealized models of aortic dissection: initial findings and potential applications. Journal of Mathematical Biology, 2016, 73, 1205-1226.	0.8	88
16	Modelling of flow and wall behaviour in a mildly stenosed tube. Medical Engineering and Physics, 2002, 24, 575-586.	0.8	86
17	Reproducibility Study of Magnetic Resonance Image-Based Computational Fluid Dynamics Prediction of Carotid Bifurcation Flow. Annals of Biomedical Engineering, 2003, 31, 142-151.	1.3	80
18	Predicting false lumen thrombosis in patient-specific models of aortic dissection. Journal of the Royal Society Interface, 2016, 13, 20160759.	1.5	80

#	Article	IF	Citations
19	Analysis of Flow Disturbance in a Stenosed Carotid Artery Bifurcation Using Two-Equation Transitional and Turbulence Models. Journal of Biomechanical Engineering, 2008, 130, 061008.	0.6	79
20	MRI measurement of wall shear stress vectors in bifurcation models and comparison with CFD predictions. Journal of Magnetic Resonance Imaging, 2001, 14, 563-573.	1.9	76
21	Predicting flow in aortic dissection: Comparison of computational model with PC-MRI velocity measurements. Medical Engineering and Physics, 2014, 36, 1176-1184.	0.8	70
22	Image-guided thermosensitive liposomes for focused ultrasound drug delivery: Using NIRF-labelled lipids and topotecan to visualise the effects of hyperthermia in tumours. Journal of Controlled Release, 2018, 280, 87-98.	4.8	66
23	Fluidâ€“solid interaction simulation of flow and stress pattern in thoracoabdominal aneurysms: A patient-specific study. Journal of Fluids and Structures, 2008, 24, 270-280.	1.5	64
24	Geometric and Flow Features of Type B Aortic Dissection: Initial Findings and Comparison of Medically Treated and Stented Cases. Annals of Biomedical Engineering, 2015, 43, 177-189.	1.3	64
25	Effects of transmural pressure and wall shear stress on LDL accumulation in the arterial wall: a numerical study using a multilayered model. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H3148-H3157.	1.5	62
26	Discrete element simulation of particle flow in arbitrarily complex geometries. Chemical Engineering Science, 2011, 66, 6069-6088.	1.9	61
27	An activated-platelet-sensitive nanocarrier enables targeted delivery of tissue plasminogen activator for effective thrombolytic therapy. Journal of Controlled Release, 2019, 300, 1-12.	4.8	61
28	Computational modelling of drug delivery to solid tumour: Understanding the interplay between chemotherapeutics and biological system for optimised delivery systems. Advanced Drug Delivery Reviews, 2018, 132, 81-103.	6.6	59
29	Image-based carotid flow reconstruction: a comparison between MRI and ultrasound. Physiological Measurement, 2004, 25, 1495-1509.	1.2	57
30	Accuracy and Reproducibility of CFD Predicted Wall Shear Stress Using 3D Ultrasound Images. Journal of Biomechanical Engineering, 2003, 125, 218-222.	0.6	56
31	The Influence of Inflow Boundary Conditions on Intra Left Ventricle Flow Predictions. Journal of Biomechanical Engineering, 2003, 125, 922-927.	0.6	53
32	Solution of population balance equation using quadrature method of moments with an adjustable factor. Chemical Engineering Science, 2007, 62, 5897-5911.	1.9	50
33	Pore-scale direct numerical simulation of particle transport in porous media. Chemical Engineering Science, 2019, 199, 613-627.	1.9	50
34	4-D Flow MRI-Based Computational Analysis of Blood Flow in Patient-Specific Aortic Dissection. IEEE Transactions on Biomedical Engineering, 2019, 66, 3411-3419.	2.5	48
35	Comparative Study of Magnetic Resonance Imaging and Image-Based Computational Fluid Dynamics for Quantification of Pulsatile Flow in a Carotid Bifurcation Phantom. Annals of Biomedical Engineering, 2003, 31, 962-971.	1.3	47
36	Computational Analysis of Oxygen Transport in the Retinal Arterial Network. Current Eye Research, 2009, 34, 945-956.	0.7	47

#	Article	IF	Citations
37	Computational Modeling of LDL and Albumin Transport in an In Vivo CT Image-Based Human Right Coronary Artery. Journal of Biomechanical Engineering, 2009, 131, 021003.	0.6	46
38	A computational model for false lumen thrombosis in type B aortic dissection following thoracic endovascular repair. Journal of Biomechanics, 2018, 66, 36-43.	0.9	46
39	Magnetic resonance image processing and structured grid generation of a human abdominal bifurcation. Computer Methods and Programs in Biomedicine, 1998, 56, 249-259.	2.6	45
40	Effects of elastic compression stockings on wall shear stress in deep and superficial veins of the calf. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H2112-H2120.	1.5	44
41	FLUID-STRUCTURE INTERACTION ANALYSIS OF WALL STRESS AND FLOW PATTERNS IN A THORACIC AORTIC ANEURYSM. International Journal of Applied Mechanics, 2009, 01, 179-199.	1.3	44
42	A Numerical Study of Aortic Flow Stability and Comparison With In Vivo Flow Measurements. Journal of Biomechanical Engineering, 2013, 135, 011003.	0.6	44
43	Computational study of aortic hemodynamics for patients with an abnormal aortic valve: The importance of secondary flow at the ascending aorta inlet. APL Bioengineering, 2018, 2, 026101.	3.3	44
44	Coronary arterial dynamics computation with medical-image-based time-dependent anatomical models and element-based zero-stress state estimates. Computational Mechanics, 2014, 54, 1047-1053.	2.2	43
45	MR Image-Based Geometric and Hemodynamic Investigation of the Right Coronary Artery with Dynamic Vessel Motion. Annals of Biomedical Engineering, 2010, 38, 2606-2620.	1.3	42
46	A Mathematical Model for Thermosensitive Liposomal Delivery of Doxorubicin to Solid Tumour. Journal of Drug Delivery, 2013, 2013, 1-13.	2.5	42
47	Comparison of LES of Steady Transitional Flow in an Idealized Stenosed Axisymmetric Artery Model With a RANS Transitional Model. Journal of Biomechanical Engineering, 2011, 133, 051001.	0.6	40
48	The influence of inlet velocity profile on predicted flow in type B aortic dissection. Biomechanics and Modeling in Mechanobiology, 2021, 20, 481-490.	1.4	40
49	Integrated morphologic and functional assessment of the aortic root after different tissue valve root replacement procedures. Journal of Thoracic and Cardiovascular Surgery, 2012, 143, 1422-1428.e2.	0.4	38
50	A twoâ€layer mesh method for discrete element simulation of gasâ€particle systems with arbitrarily polyhedral mesh. International Journal for Numerical Methods in Engineering, 2015, 103, 759-780.	1.5	37
51	Comparison of Blood Flow in Branched and Fenestrated Stent-Grafts for Endovascular Repair of Abdominal Aortic Aneurysms. Journal of Endovascular Therapy, 2015, 22, 578-590.	0.8	37
52	Ultrasound image-based computer model of a common carotid artery with a plaque. Medical Engineering and Physics, 2004, 26, 823-840.	0.8	36
53	Introduction to the biomechanics of carotid plaque pathogenesis and rupture: review of the clinical evidence. British Journal of Radiology, 2010, 83, 729-735.	1.0	36
54	A combined fluid dynamics, mass transport and cell growth model for a three-dimensional perfused biorector for tissue engineering of haematopoietic cells. Biochemical Engineering Journal, 2007, 35, 1-11.	1.8	35

#	Article	IF	Citations
55	Carotid endothelial shear stress reduction with aging is associated with plaque development in twelve years. Atherosclerosis, 2016, 251, 63-69.	0.4	35
56	The effect of tumour size on drug transport and uptake in 3-D tumour models reconstructed from magnetic resonance images. PLoS ONE, 2017, 12, e0172276.	1.1	35
57	Evaluation of 4D flow MRI-based non-invasive pressure assessment in aortic coarctations. Journal of Biomechanics, 2019, 94, 13-21.	0.9	35
58	Fibrinogen-mimicking, multiarm nanovesicles for human thrombus-specific delivery of tissue plasminogen activator and targeted thrombolytic therapy. Science Advances, 2021, 7, .	4.7	33
59	Patient-specific analysis of displacement forces acting on fenestrated stent grafts for endovascular aneurysm repair. Journal of Biomechanics, 2014, 47, 3546-3554.	0.9	32
60	Influence of Pulsatile Flow on LDL Transport in the Arterial Wall. Annals of Biomedical Engineering, 2007, 35, 1782-1790.	1.3	31
61	Shear-induced platelet activation and its relationship with blood flow topology in a numerical model of stenosed carotid bifurcation. European Journal of Mechanics, B/Fluids, 2012, 35, 92-101.	1.2	31
62	Towards a multiphysics modelling framework for thermosensitive liposomal drug delivery to solid tumour combined with focused ultrasound hyperthermia. Biophysics Reports, 2019, 5, 43-59.	0.2	31
63	Low wall shear stress predicts subsequent development of wall hypertrophy in lower limb bypass grafts. Artery Research, 2009, 3, 32.	0.3	30
64	Computational Simulations of Thrombolytic Therapy in Acute Ischaemic Stroke. Scientific Reports, 2018, 8, 15810.	1.6	30
65	Effect of heterogeneous microvasculature distribution on drug delivery to solid tumour. Journal Physics D: Applied Physics, 2014, 47, 475401.	1.3	29
66	Analysis of Turbulence Effects in a Patient-Specific Aorta with Aortic Valve Stenosis. Cardiovascular Engineering and Technology, 2021, 12, 438-453.	0.7	29
67	Carotid geometry reconstruction: a comparison between MRI and ultrasound. Medical Physics, 2003, 30, 3251-3261.	1.6	28
68	A predictive model for spiral wound reverse osmosis membrane modules: The effect of winding geometry and accurate geometric details. Computers and Chemical Engineering, 2017, 96, 248-265.	2.0	28
69	High Wall Shear Stress can Predict Wall Degradation in Ascending Aortic Aneurysms: An Integrated Biomechanics Study. Frontiers in Bioengineering and Biotechnology, 2021, 9, 750656.	2.0	28
70	Reconstruction of blood flow patterns in human arteries. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 1999, 213, 411-421.	1.0	27
71	Computational analysis of oxygen transport in a patient-specific model of abdominal aortic aneurysm with intraluminal thrombus. British Journal of Radiology, 2009, 82, S18-S23.	1.0	26
72	Location of Reentry Tears Affects False Lumen Thrombosis in Aortic Dissection Following TEVAR. Journal of Endovascular Therapy, 2020, 27, 396-404.	0.8	26

#	Article	IF	Citations
73	Flow in carotid bifurcations: effect of the superior thyroid artery. Medical Engineering and Physics, 1999, 21, 207-214.	0.8	25
74	An adaptive direct quadrature method of moment for population balance equations. AICHE Journal, 2008, 54, 2872-2887.	1.8	24
75	Various issues relating to computational fluid dynamics simulations of carotid bifurcation flow based on models reconstructed from three-dimensional ultrasound images. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2003, 217, 393-403.	1.0	23
76	Operator dependence of 3-D ultrasound-based computational fluid dynamics for the carotid bifurcation. IEEE Transactions on Medical Imaging, 2005, 24, 451-456.	5.4	23
77	Nitric oxide transport in an axisymmetric stenosis. Journal of the Royal Society Interface, 2012, 9, 2468-2478.	1.5	23
78	Effects of aortic root motion on wall stress in the Marfan aorta before and after personalised aortic root support (PEARS) surgery. Journal of Biomechanics, 2016, 49, 2076-2084.	0.9	23
79	High Wall Stress May Predict the Formation of Stent-Graftâ€“Induced New Entries After Thoracic Endovascular Aortic Repair. Journal of Endovascular Therapy, 2018, 25, 571-577.	0.8	23
80	Role of MRI in investigating the effects of elastic compression stockings on the deformation of the superficial and deep veins in the lower leg. Journal of Magnetic Resonance Imaging, 2007, 26, 80-85.	1.9	22
81	A computational study on the influence of catheter-delivered intravascular probes on blood flow in a coronary artery model. Journal of Biomechanics, 2007, 40, 2501-2509.	0.9	22
82	Flow pattern analysis in a highly stenotic patient-specific carotid bifurcation model using a turbulence model. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1099-1107.	0.9	22
83	Quantitative comparison of CFD predicted and MRI measured velocity fields in a carotid bifurcation phantom. Biorheology, 2002, 39, 467-74.	1.2	22
84	Comparison of Aortic Flow Patterns Before and After Transcatheter Aortic Valve Implantation. Cardiovascular Engineering and Technology, 2012, 3, 123-135.	0.7	20
85	Advances in numerical methods for the solution of population balance equations for disperse phase systems. Science in China Series B: Chemistry, 2009, 52, 1063-1079.	0.8	19
86	Evidence-based recommendations for PISA measurements in mitral regurgitation: systematic review, clinical and in-vitro study. International Journal of Cardiology, 2013, 168, 1220-1228.	0.8	19
87	Measurement of hemodynamics in human carotid artery using ultrasound and computational fluid dynamics. Journal of Applied Physiology, 2002, 92, 957-961.	1.2	18
88	Towards a multi-physics modelling framework for thrombolysis under the influence of blood flow. Journal of the Royal Society Interface, 2015, 12, 20150949.	1.5	18
89	A systematic study of temperature sensitive liposomal delivery of doxorubicin using a mathematical model. Computers in Biology and Medicine, 2015, 60, 107-116.	3.9	18
90	MR-labelled liposomes and focused ultrasound for spatiotemporally controlled drug release in triple negative breast cancers in mice. Nanotheranostics, 2021, 5, 125-142.	2.7	18

#	Article	IF	Citations
91	Assessment of Hemodynamic Conditions in the Aorta Following Root Replacement with Composite Valve-Conduit Graft. Annals of Biomedical Engineering, 2016, 44, 1392-1404.	1.3	17
92	Disturbed Flow in a Stenosed Carotid Artery Bifurcation: Comparison of RANS-Based Transitional Model and LES with Experimental Measurements. International Journal of Applied Mechanics, 2019, 11, 1950032.	1.3	17
93	A combined experimental and computational study of the flow characteristics in a Type B aortic dissection: Effect of primary and secondary tear size. Chemical Engineering Research and Design, 2020, 160, 240-253.	2.7	17
94	Patient-Specific Virtual Stent-Graft Deployment for Type B Aortic Dissection: A Pilot Study of the Impact of Stent-Graft Length. Frontiers in Physiology, 2021, 12, 718140.	1.3	17
95	Patient-specific simulation of stent-graft deployment in type B aortic dissection: model development and validation. Biomechanics and Modeling in Mechanobiology, 2021, 20, 2247-2258.	1.4	17
96	Mathematical Modelling of Drug Transport and Uptake in a Realistic Model of Solid Tumour. Protein and Peptide Letters, 2014, 21, 1146-1156.	0.4	17
97	Use of mathematical models to understand anticancer drug delivery and its effect on solid tumors. Pharmacogenomics, 2011, 12, 1337-1348.	0.6	16
98	An improved version of RIGID for discrete element simulation of particle flows with arbitrarily complex geometries. Powder Technology, 2014, 253, 393-405.	2.1	16
99	A viscoelastic fluidâ€“structure interaction model for carotid arteries under pulsatile flow. International Journal for Numerical Methods in Biomedical Engineering, 2015, 31, e02709.	1.0	15
100	Effect of a Flared Renal Stent on the Performance of Fenestrated Stent-Grafts at Rest and Exercise Conditions. Journal of Endovascular Therapy, 2016, 23, 809-820.	0.8	15
101	Aortic flow patterns before and after personalised external aortic root support implantation in Marfan patients. Journal of Biomechanics, 2016, 49, 100-111.	0.9	15
102	Mathematical Modelling of Intravenous Thrombolysis in Acute Ischaemic stroke: Effects of Dose Regimens on Levels of Fibrinolytic Proteins and Clot Lysis Time. Pharmaceutics, 2019, 11, 111.	2.0	15
103	Association of hemodynamic factors and progressive aortic dilatation following type A aortic dissection surgical repair. Scientific Reports, 2021, 11, 11521.	1.6	15
104	Analysis of flow and wall shear stress in the peroneal veins under external compression based on real-time MR images. Medical Engineering and Physics, 2012, 34, 17-27.	0.8	14
105	Finite element analysis of the deformation of deep veins in the lower limb under external compression. Medical Engineering and Physics, 2013, 35, 515-523.	0.8	14
106	Patient-Specific Coronary Stenoses Can Be Modeled Using a Combination of OCT and Flow Velocities to Accurately Predict Hyperemic Pressure Gradients. IEEE Transactions on Biomedical Engineering, 2014, 61, 1902-1913.	2.5	14
107	Effect of intimal flap motion on flow in acute type B aortic dissection by using fluidâ€structure interaction. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3399.	1.0	14
108	Correlations for Concentration Polarization and Pressure Drop in Spacer-Filled RO Membrane Modules Based on CFD Simulations. Membranes, 2021, 11, 338.	1.4	14

#	Article	IF	Citations
109	Evaluation and verification of patient-specific modelling of type B aortic dissection. Computers in Biology and Medicine, 2022, 140, 105053.	3.9	14
110	Fluid-Structure Interaction Simulations of Repaired Type A Aortic Dissection: a Comprehensive Comparison With Rigid Wall Models. Frontiers in Physiology, 0, 13, .	1.3	14
111	Development of lysolipid-based thermosensitive liposomes for delivery of high molecular weight proteins. International Journal of Pharmaceutics, 2011, 421, 291-292.	2.6	13
112	Finite element modeling to predict procedural success of thoracic endovascular aortic repair in type A aortic dissection. JTCVS Techniques, 2020, 4, 40-47.	0.2	13
113	The effect of turbulence on transitional flow in the <scp>FDA</scp>'s benchmark nozzle model using largeâ€eddy simulation. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3389.	1.0	13
114	Predicting Impending Rupture of the Ascending Aorta With Bicuspid Aortic Valve. JACC: Cardiovascular Imaging, 2013, 6, 1017-1019.	2.3	12
115	Reconstruction of blood flow patterns in a human carotid bifurcation: A combined CFD and MRI study. , 2000, 11, 299.		12
116	A systems-based mathematical modelling framework for investigating the effect of drugs on solid tumours. Theoretical Biology and Medical Modelling, 2011, 8, 45.	2.1	11
117	Biomechanical properties of the Marfan's aortic root and ascending aorta before and after personalised external aortic root support surgery. Medical Engineering and Physics, 2015, 37, 759-766.	0.8	11
118	Simulation of ex vivo bone marrow culture: Application to chronic myeloid leukaemia growth model. Biochemical Engineering Journal, 2012, 61, 66-77.	1.8	10
119	Investigating the effects of ABC transporter-based acquired drug resistance mechanisms at the cellular and tissue scale. Integrative Biology (United Kingdom), 2013, 5, 555.	0.6	10
120	Towards an understanding of the release behavior of temperature-sensitive liposomes: a possible explanation of the â€œpseudoequilibriumâ€•release behavior at the phase transition temperature. Journal of Liposome Research, 2013, 23, 167-173.	1.5	10
121	Computational simulations of thrombolysis in acute stroke: Effect of clot size and location on recanalisation. Medical Engineering and Physics, 2019, 73, 9-17.	0.8	10
122	A pilot study of aortic hemodynamics before and after thoracic endovascular repair with a double-branched endograft. Medicine in Novel Technology and Devices, 2019, 4, 100027.	0.9	10
123	Thermosensitive Liposome-Mediated Drug Delivery in Chemotherapy: Mathematical Modelling for Spatioâ€“temporal Drug Distribution and Model-Based Optimisation. Pharmaceutics, 2019, 11, 637.	2.0	10
124	Evaluation of Computational Methodologies for Accurate Prediction of Wall Shear Stress and Turbulence Parameters in a Patient-Specific Aorta. Frontiers in Bioengineering and Biotechnology, 2022, 10, 836611.	2.0	10
125	Simulation of micro-behaviors including nucleation, growth, and aggregation in particle system. Science in China Series B: Chemistry, 2009, 52, 241-248.	0.8	9
126	Assessment of Energy Requirement for the Retinal Arterial Network in Normal and Hypertensive Subjects. Journal of Biomechanical Engineering, 2012, 134, 014501.	0.6	9

#	Article	IF	Citations
127	In-vivo assessment of the morphology and hemodynamic functions of the BioValsalvaâ„¢ composite valve-conduit graft using cardiac magnetic resonance imaging and computational modelling technology. Journal of Cardiothoracic Surgery, 2014, 9, 193.	0.4	9
128	Dissection Level Within Aortic Wall Layers is Associated with Propagation of Type B Aortic Dissection: A Swine Model Study. European Journal of Vascular and Endovascular Surgery, 2019, 58, 415-425.	0.8	9
129	A Computational Study of the Effect of Stent Design on Local Hemodynamic Factors at the Carotid Artery Bifurcation. Artery Research, 2020, 26, 161-169.	0.3	9
130	An integrated fluidâ€“structure interaction and thrombosis model for type B aortic dissection. Biomechanics and Modeling in Mechanobiology, 2022, 21, 261-275.	1.4	9
131	Prediction of aortic dilatation in surgically repaired type A dissection: A longitudinal study using computational fluid dynamics. JTCVS Open, 2022, 9, 11-27.	0.2	9
132	MR phaseâ€contrast velocity mapping methods for measuring venous blood velocity in the deep veins of the calf. Journal of Magnetic Resonance Imaging, 2011, 34, 634-644.	1.9	8
133	Relationship between carotid artery intima-media thickness and wall shear stress derived parameters. Computer Methods in Biomechanics and Biomedical Engineering, 2005, 8, 279-280.	0.9	7
134	Combined imaging, computational and histological analysis of a ruptured carotid plaque: A patient-specific analysis. Artery Research, 2010, 4, 59.	0.3	7
135	A novel fully automated method for mitral regurgitant orifice area quantification. International Journal of Cardiology, 2013, 166, 688-695.	0.8	7
136	Towards an integrated systems-based modelling framework for drug transport and its effect on tumour cells. Journal of Biological Engineering, 2014, 8, 3.	2.0	7
137	Hemodynamic evaluation using four-dimensional flow magnetic resonance imaging for a patient with multichanneled aortic dissection. Journal of Vascular Surgery Cases and Innovative Techniques, 2018, 4, 67-71.	0.3	7
138	Computational Modeling of Flow and Thrombus Formation in Type B Aortic Dissection: The Influence of False Lumen Perfused Side Branches. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2022, , 53-72.	0.7	7
139	Computational biomechanics of the aortic root. Aswan Heart Centre Science & Practice Series, 2011, 2011, .	0.3	6
140	Effect of Vessel Tortuosity on Stress Concentration at the Distal Stentâ€“Vessel Interface: Possible Link With New Entry Formation Through Biomechanical Simulation. Journal of Biomechanical Engineering, 2021, 143, .	0.6	6
141	Geometry and flow in ascending aortic aneurysms are influenced by left ventricular outflow tract orientation: Detecting increased wall shear stress on the outer curve of proximal aortic aneurysms. Journal of Thoracic and Cardiovascular Surgery, 2023, 166, 11-21.e1.	0.4	6
142	Qualitative and Quantitative Assessments of Blood Flow on Tears in Type B Aortic Dissection With Different Morphologies. Frontiers in Bioengineering and Biotechnology, 2021, 9, 742985.	2.0	6
143	Haemodynamic Analysis of Branched Endografts for Complex Aortic Arch Repair. Bioengineering, 2022, 9, 45.	1.6	6
144	Physical characterisation and yield stress of a concentrated Miscanthus suspension. Rheologica Acta, 2014, 53, 805-815.	1.1	5

#	Article	IF	Citations
145	Phase-contrast magnetic resonance imaging and computational fluid dynamics assessment of thoracic aorta blood flow: a literature review. European Journal of Cardio-thoracic Surgery, 2020, 57, 438-446.	0.6	5
146	Modelling in congenital heart disease. Art or science?. International Journal of Cardiology, 2009, 133, 141-144.	0.8	4
147	Carotid Artery Hemodynamics: Observing Patient-specific Changes with Amlodipine and Lisinopril by Using MR Imaging Computation Fluid Dynamics. Radiology, 2010, 257, 662-669.	3.6	4
148	Hemodynamic changes in the femoral vein with increasing outflow resistance. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2014, 2, 26-33.	0.9	4
149	Intrinsic and induced drug resistance mechanisms: in silico investigations at the cellular and tissue scales. Integrative Biology (United Kingdom), 2015, 7, 1044-1060.	0.6	4
150	Hemodynamic Functions of Fenestrated Stent Graft under Resting, Hypertension, and Exercise Conditions. Frontiers in Surgery, 2016, 3, 35.	0.6	4
151	Modelling Combined Intravenous Thrombolysis and Mechanical Thrombectomy in Acute Ischaemic Stroke: Understanding the Relationship between Stent Retriever Configuration and Clot Lysis Mechanisms. Life, 2021, 11, 1271.	1.1	4
152	Quantification of the non-planarity of the human carotid bifurcation. Biorheology, 2002, 39, 419-24.	1.2	4
153	Magnetic resonance venous velocity mapping during intermittent pneumatic compression of the calf and foot. Phlebology, 2012, 27, 352-359.	0.6	3
154	Multiphysics Modelling and Simulation of Thrombolysis via Activated Platelet-Targeted Nanomedicine. Pharmaceutical Research, 2022, 39, 41-56.	1.7	3
155	Local fixed pivot quadratue method of moment for bubble population balance equation including coalescence and breakage. , 2010, , .		1
156	Aortic Leaflet Stress in Surgery for Genetically Determined Root Aneurysms: Biomechanical Insights. Annals of Thoracic Surgery, 2018, 105, 984.	0.7	1
157	3D-Bioprinting and Micro-/Nano-Technology: Emerging Technologies in Biomedical Sciences. Advanced Drug Delivery Reviews, 2018, 132, 1-2.	6.6	1
158	Abstract 10478: Comprehensive Mechanical Modelling of Thoracic Endovascular Aortic Repair in Type A Aortic Dissection. Circulation, 2021, 144, .	1.6	1
159	The Haemodynamic and Pathophysiological Mechanisms of Calcific Aortic Valve Disease. Biomedicines, 2022, 10, 1317.	1.4	1
160	APPLICATION OF ULTRASOUND-BASED COMPUTATIONAL FLUID DYNAMICS TO MODELING BLOOD FLOW IN THE CAROTID BIFURCATION. , 2005, , 109-156.		0