

Xiao Liu

List of Publications by Year in descending order

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62
papers

2,399
citations

430874

18
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206112

48
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64
all docs

64
docs citations

64
times ranked

3623
citing authors

#	ARTICLE	IF	CITATIONS
1	A Survey on Gas Sensing Technology. <i>Sensors</i> , 2012, 12, 9635-9665.	3.8	1,116
2	A numerical study on the flow of blood and the transport of LDL in the human aorta: the physiological significance of the helical flow in the aortic arch. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2009, 297, H163-H170.	3.2	159
3	Effect of non-Newtonian and pulsatile blood flow on mass transport in the human aorta. <i>Journal of Biomechanics</i> , 2011, 44, 1123-1131.	2.1	155
4	Physiological Significance of Helical Flow in the Arterial System and its Potential Clinical Applications. <i>Annals of Biomedical Engineering</i> , 2015, 43, 3-15.	2.5	118
5	Effect of Spiral Flow on the Transport of Oxygen in the Aorta: A Numerical Study. <i>Annals of Biomedical Engineering</i> , 2010, 38, 917-926.	2.5	85
6	Bioprinting: 3D Bioprinting: from Benches to Translational Applications (Small 23/2019). <i>Small</i> , 2019, 15, 1970126.	10.0	84
7	A General Strategy for Extrusion Bioprinting of Bio-Macromolecular Bioinks through Alginate-Templated Dual-Stage Crosslinking. <i>Macromolecular Bioscience</i> , 2018, 18, e1800127.	4.1	60
8	Cancer Cell Glycocalyx and Its Significance in Cancer Progression. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2484.	4.1	56
9	Effect of the endothelial glycocalyx layer on arterial LDL transport under normal and high pressure. <i>Journal of Theoretical Biology</i> , 2011, 283, 71-81.	1.7	41
10	Beamforming Based Full-Duplex for Millimeter-Wave Communication. <i>Sensors</i> , 2016, 16, 1130.	3.8	36
11	Hemodynamic insight into overlapping bare-metal stents strategy in the treatment of aortic aneurysm. <i>Journal of Biomechanics</i> , 2015, 48, 2041-2046.	2.1	34
12	Thermoresponsive Mobile Interfaces with Switchable Wettability, Optical Properties, and Penetrability. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 35483-35491.	8.0	33
13	Electrochemically Enabled Embedded Three-Dimensional Printing of Freestanding Gallium Wire-like Structures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 53966-53972.	8.0	30
14	Auditing and Revocation Enabled Role-Based Access Control over Outsourced Private EHRs. , 2015, , .		24
15	Nitric oxide transport in an axisymmetric stenosis. <i>Journal of the Royal Society Interface</i> , 2012, 9, 2468-2478.	3.4	23
16	Magnesium-Based Whitlockite Bone Mineral Promotes Neural and Osteogenic Activities. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 5785-5796.	5.2	23
17	Vascular smooth muscle cell glycocalyx mediates shear stress-induced contractile responses via a Rho kinase (ROCK)-myosin light chain phosphatase (MLCP) pathway. <i>Scientific Reports</i> , 2017, 7, 42092.	3.3	21
18	Biinspired helical graft with taper to enhance helical flow. <i>Journal of Biomechanics</i> , 2016, 49, 3643-3650.	2.1	20

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19	Numerical simulation of haemodynamics and low-density lipoprotein transport in the rabbit aorta and their correlation with atherosclerotic plaque thickness. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170140.	3.4	20
20	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. <i>Journal of Biomechanics</i> , 2018, 68, 33-42.	2.1	18
21	Hemodynamic Performance of a New Punched Stent Strut: A Numerical Study. <i>Artificial Organs</i> , 2016, 40, 669-677.	1.9	17
22	Flow shear stress controls the initiation of neovascularization <i>via</i> heparan sulfate proteoglycans within a biomimetic microfluidic model. <i>Lab on A Chip</i> , 2021, 21, 421-434.	6.0	17
23	PERM-GUARD: Authenticating the Validity of Flow Rules in Software Defined Networking. <i>Journal of Signal Processing Systems</i> , 2017, 86, 157-173.	2.1	16
24	Nitric Oxide Transport in Normal Human Thoracic Aorta: Effects of Hemodynamics and Nitric Oxide Scavengers. <i>PLoS ONE</i> , 2014, 9, e112395.	2.5	16
25	Delivery of Nitric Oxide in the Cardiovascular System: Implications for Clinical Diagnosis and Therapy. <i>International Journal of Molecular Sciences</i> , 2021, 22, 12166.	4.1	15
26	The role of hemoglobin in nitric oxide transport in vascular system. <i>Medicine in Novel Technology and Devices</i> , 2020, 5, 100034.	1.6	11
27	PERM-GUARD: Authenticating the Validity of Flow Rules in Software Defined Networking. , 2015, , .		10
28	Effects of endothelium, stent design and deployment on the nitric oxide transport in stented artery: a potential role in stent restenosis and thrombosis. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 427-439.	2.8	10
29	Influence of catheter insertion on the hemodynamic environment in coronary arteries. <i>Medical Engineering and Physics</i> , 2016, 38, 946-951.	1.7	10
30	Numerical simulation of nucleotide transport in the human thoracic aorta. <i>Journal of Biomechanics</i> , 2013, 46, 819-827.	2.1	8
31	Enhanced accumulation of LDLs within the venous graft wall induced by elevated filtration rate may account for its accelerated atherogenesis. <i>Atherosclerosis</i> , 2014, 236, 198-206.	0.8	8
32	Does Lower Limb Exercise Worsen Renal Artery Hemodynamics in Patients with Abdominal Aortic Aneurysm?. <i>PLoS ONE</i> , 2015, 10, e0125121.	2.5	8
33	Energy Efficiency Optimization for Communication of Air-Based Information Network with Guaranteed Timing Constraints. <i>Journal of Signal Processing Systems</i> , 2017, 86, 299-312.	2.1	8
34	Fracture-Resistant and Bioresorbable Drug-Eluting Poly(glycerol Sebacate) Coils. <i>Advanced Therapeutics</i> , 2019, 2, 1800109.	3.2	7
35	Spatiotemporal transfer of nitric oxide in patient-specific atherosclerotic carotid artery bifurcations with MRI and computational fluid dynamics modeling. <i>Computers in Biology and Medicine</i> , 2020, 125, 104015.	7.0	7
36	Mechanotransduction of Flow-Induced Shear Stress by Endothelial Glycocalyx Fibers is Torque Determined. <i>ASAIO Journal</i> , 2011, 57, 487-494.	1.6	6

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37	Flow-mediated dilation analysis coupled with nitric oxide transport to enhance the assessment of endothelial function. <i>Journal of Applied Physiology</i> , 2021, 131, 1-14.	2.5	6
38	Effect of longitudinal anatomical mismatch of stenting on the mechanical environment in human carotid artery with atherosclerotic plaques. <i>Medical Engineering and Physics</i> , 2017, 48, 114-119.	1.7	5
39	Quasi-Projective Synchronization of Distributed-Order Recurrent Neural Networks. <i>Fractal and Fractional</i> , 2021, 5, 260.	3.3	5
40	Influence of proximal drug eluting stent (DES) on distal bare metal stent (BMS) in multi-stent implantation strategies in coronary arteries. <i>Medical Engineering and Physics</i> , 2015, 37, 840-844.	1.7	4
41	Bioprinting: Extrusion Bioprinting of Shear-Thinning Gelatin Methacryloyl Bioinks (Adv. Healthcare) Tj ETQq1 1 0.784314 rgBT /Over	7.6	4
42	Numerical analysis of the hemodynamics of rat aorta based on magnetic resonance imaging and fluid-structure interaction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2021, 37, e3457.	2.1	4
43	Hemodynamic Impact of Stenting on Carotid Bifurcation: A Potential Role of the Stented Segment and External Carotid Artery. <i>Computational and Mathematical Methods in Medicine</i> , 2021, 2021, 1-9.	1.3	4
44	Experimental performance comparisons between (H)IBE schemes over composite-order and prime-order bilinear groups. , 2014, , .		3
45	Optimization for Communication Energy Efficiency of Air-Based Information Network While Satisfying Timing Constraints. , 2015, , .		3
46	Transfer of Low-Density Lipoproteins in Coronary Artery Bifurcation Lesions with Stenosed Side Branch: Numerical Study. <i>Computational and Mathematical Methods in Medicine</i> , 2019, 2019, 1-10.	1.3	3
47	Sequential numerical simulation of vascular remodeling and thrombosis in unconventional hybrid repair of ruptured middle aortic syndrome. <i>Medical Engineering and Physics</i> , 2021, 94, 87-95.	1.7	3
48	Effects of residual stenosis on carotid artery after stent implantation: A numerical study. <i>Medicine in Novel Technology and Devices</i> , 2022, 13, 100105.	1.6	3
49	Linear Error Correction Codec Implementation Based on an In-Memory Computing Architecture for Nonvolatile Memories. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 3455-3461.	3.0	3
50	Modeling method of SysML-based reliability block diagram. , 2013, , .		2
51	Energy Optimization of Air-Based Information Network with Guaranteed Security Protection. , 2015, , .		2
52	Influence of endoleak positions on the pressure shielding ability of stent-graft after endovascular aneurysm repair (EVAR) of abdominal aortic aneurysm (AAA). <i>BioMedical Engineering OnLine</i> , 2016, 15, 135.	2.7	2
53	Plaque components affect wall stress in stented human carotid artery: A numerical study. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2016, 32, 1149-1154.	3.4	2
54	Microfluidic Bioprinting: Digitally Tunable Microfluidic Bioprinting of Multilayered Cannular Tissues (Adv. Mater. 43 2018). <i>Advanced Materials</i> , 2018, 30, 1870322.	21.0	2

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55	Hydraulic conductivity and low-density lipoprotein transport of the venous graft wall in an arterial bypass. <i>BioMedical Engineering OnLine</i> , 2019, 18, 50.	2.7	2
56	Influence of Artery Straightening on Local Hemodynamics in Left Anterior Descending (LAD) Artery after Stent Implantation. <i>Cardiology Research and Practice</i> , 2020, 2020, 1-9.	1.1	2
57	Simulation of Contrast Agent Transport in Arteries with Multilayer Arterial Wall: Impact of Arterial Transmural Transport on the Bolus Delay and Dispersion. <i>Scientific World Journal, The</i> , 2014, 2014, 1-13.	2.1	1
58	Transcatheter aortic valve replacement in patients with high aortic angulation. <i>Journal of Thoracic Disease</i> , 2017, 9, S439-S441.	1.4	1
59	Microfluidic Model to Mimic Initial Event of Neovascularization. <i>Journal of Visualized Experiments</i> , 2021, , .	0.3	1
60	Novel Nonvolatile Lookup Table Design Based on Voltage-Controlled Spin Orbit Torque Memory. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1677-1682.	3.0	1
61	Spatiotemporal changes of local hemodynamics and plaque components during atherosclerotic progression in rabbit. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 220, 106814.	4.7	1
62	Combination in Advance Batch Multi-exponentiation on Elliptic Curve. , 2015, , .		0