

Lucas O Muller

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

1,209
citations

430754

18
h-index

377752

34
g-index

39
all docs

39
docs citations

39
times ranked

1047
citing authors

#	ARTICLE	IF	CITATIONS
1	Cerebrospinal fluid dynamics coupled to the global circulation in holistic setting: Mathematical models, numerical methods and applications. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2022, 38, e3532.	1.0	20
2	How to identify which patients should not have a systolic blood pressure target of ≤ 120 mmHg. <i>European Heart Journal</i> , 2022, 43, 538-539.	1.0	4
3	Deep Learning to Automatically Segment and Analyze Abdominal Aortic Aneurysm from Computed Tomography Angiography. <i>Cardiovascular Engineering and Technology</i> , 2022, 13, 535-547.	0.7	10
4	Nonlinear lumped-parameter models for blood flow simulations in networks of vessels. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2022, 56, 1579-1627.	0.8	2
5	Impact of baseline coronary flow and its distribution on fractional flow reserve prediction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2021, 37, e3246.	1.0	27
6	Multiscale Coupling of One-dimensional Vascular Models and Elastic Tissues. <i>Annals of Biomedical Engineering</i> , 2021, 49, 3243-3254.	1.3	4
7	Machine learning augmented reduced-order models for FFR-prediction. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 384, 113892.	3.4	21
8	Total Effective Vascular Compliance of a Global Mathematical Model for the Cardiovascular System. <i>Symmetry</i> , 2021, 13, 1858.	1.1	4
9	Impact of sodium-glucose cotransporter-2 inhibitors-induced glucosuria in the incidence of urogenital infection on postmenopausal women with diabetes. <i>Postgraduate Medicine</i> , 2020, 132, 697-701.	0.9	2
10	On the anatomical definition of arterial networks in blood flow simulations: comparison of detailed and simplified models. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 1663-1678.	1.4	11
11	Bond Graph Model of Cerebral Circulation: Toward Clinically Feasible Systemic Blood Flow Simulations. <i>Physiome</i> , 2020, , .	0.3	0
12	Bond Graph Model of Cerebral Circulation: Toward Clinically Feasible Systemic Blood Flow Simulations. <i>Physiome</i> , 2020, , .	0.3	0
13	The Effects of Cerebral Vasospasm on Cerebral Blood Flow and the Effects of Induced Hypertension: A Mathematical Modelling Study. <i>Interventional Neurology</i> , 2019, 8, 152-163.	1.8	6
14	Reduced-Order Unscented Kalman Filter With Observations in the Frequency Domain: Application to Computational Hemodynamics. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1269-1276.	2.5	17
15	Inner-ear circulation in humans is disrupted by extracranial venous outflow strictures: Implications for Ménière's disease. <i>Veins and Lymphatics</i> , 2018, 7, .	0.1	6
16	Uncertainty Quantification and Sensitivity Analysis for Computational FFR Estimation in Stable Coronary Artery Disease. <i>Cardiovascular Engineering and Technology</i> , 2018, 9, 597-622.	0.7	39
17	Bond Graph Model of Cerebral Circulation: Toward Clinically Feasible Systemic Blood Flow Simulations. <i>Frontiers in Physiology</i> , 2018, 9, 148.	1.3	32
18	A numerical method for junctions in networks of shallow-water channels. <i>Applied Mathematics and Computation</i> , 2018, 337, 190-213.	1.4	10

#	ARTICLE	IF	CITATIONS
19	Computer-aided quantification of microvascular networks: Application to alterations due to pathological angiogenesis in the hamster. <i>Microvascular Research</i> , 2017, 112, 53-64.	1.1	5
20	Blood pressure gradients in cerebral arteries: a clue to pathogenesis of cerebral small vessel disease. <i>Stroke and Vascular Neurology</i> , 2017, 2, 108-117.	1.5	125
21	Assessment of reduced-order unscented Kalman filter for parameter identification in 1-dimensional blood flow models using experimental data. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2017, 33, e2843.	1.0	24
22	A high-order local time stepping finite volume solver for one-dimensional blood flow simulations: application to the ADAN model. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016, 32, e02761.	1.0	33
23	Computational modeling of blood flow steal phenomena caused by subclavian stenoses. <i>Journal of Biomechanics</i> , 2016, 49, 1593-1600.	0.9	12
24	An integrated mathematical model of the cardiovascular and respiratory systems. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016, 32, e02736.	1.0	11
25	Roadmap for cardiovascular circulation model. <i>Journal of Physiology</i> , 2016, 594, 6909-6928.	1.3	33
26	Consistent treatment of viscoelastic effects at junctions in one-dimensional blood flow models. <i>Journal of Computational Physics</i> , 2016, 314, 167-193.	1.9	26
27	Impact of CCSVI on cerebral haemodynamics: a mathematical study using MRI angiographic and flow data. <i>Phlebology</i> , 2016, 31, 305-324.	0.6	19
28	A benchmark study of numerical schemes for one-dimensional arterial blood flow modelling. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2015, 31, e02732.	1.0	144
29	Simulation of one-dimensional blood flow in networks of human vessels using a novel TVD scheme. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2015, 31, e02701.	1.0	21
30	A high order approximation of hyperbolic conservation laws in networks: Application to one-dimensional blood flow. <i>Journal of Computational Physics</i> , 2015, 300, 423-437.	1.9	40
31	Computational haemodynamics in stenotic internal jugular veins. <i>Journal of Mathematical Biology</i> , 2015, 70, 745-772.	0.8	15
32	Impact of Jugular Vein Valve Function on Cerebral Venous Haemodynamics. <i>Current Neurovascular Research</i> , 2015, 12, 384-397.	0.4	26
33	Hyperbolic reformulation of a 1D viscoelastic blood flow model and ADER finite volume schemes. <i>Journal of Computational Physics</i> , 2014, 266, 101-123.	1.9	53
34	A global multiscale mathematical model for the human circulation with emphasis on the venous system. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2014, 30, 681-725.	1.0	165
35	Enhanced global mathematical model for studying cerebral venous blood flow. <i>Journal of Biomechanics</i> , 2014, 47, 3361-3372.	0.9	66
36	Well-balanced high-order solver for blood flow in networks of vessels with variable properties. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2013, 29, 1388-1411.	1.0	82

#	ARTICLE	IF	CITATIONS
37	Well-balanced high-order numerical schemes for one-dimensional blood flow in vessels with varying mechanical properties. Journal of Computational Physics, 2013, 242, 53-85.	1.9	85
38	AENO: a Novel Reconstruction Method in Conjunction with ADER Schemes for Hyperbolic Equations. Communications on Applied Mathematics and Computation, 0, , 1.	0.7	7