Nikos Stergiopulos

List of Publications by Year
in descending order

77 papers	4,264 citations	117625 34 h-index	114465 63 g-index
78 all docs	78 docs citations	78 times ranked	4086 citing authors

#	Article	IF	Citations
1	Assessment of Stiffness of Large to Small Arteries in Multistage Renal Disease Model: A Numerical Study. Frontiers in Physiology, 2022, 13, 832858.	2.8	3
2	Co-localization of microstructural damage and excessive mechanical strain at aortic branches in angiotensin-II-infused mice. Biomechanics and Modeling in Mechanobiology, 2020, 19, 81-97.	2.8	11
3	eyeWatch™ System Combined with Non-plated Intraorbital Tube Insertion for the Management of Refractory Glaucoma: A Case Series. Journal of Current Glaucoma Practice, 2020, 14, 64-67.	0.5	1
4	A 1D computer model of the arterial circulation in horses: An important resource for studying global interactions between heart and vessels under normal and pathological conditions. PLoS ONE, 2019, 14, e0221425.	2.5	2
5	Mapping the site-specific accuracy of loop-based local pulse wave velocity estimation and reflection magnitude: a 1D arterial network model analysis. Physiological Measurement, 2019, 40, 075002.	2.1	7
6	Modulation of nNOS ser852 phosphorylation and translocation by PKA/PP1 pathway in endothelial cells. Nitric Oxide - Biology and Chemistry, 2018, 72, 52-58.	2.7	6
7	P140 ARTERIAL WAVE DYNAMICS IN THE HORSE: INSIGHTS OBTAINED FROM A 1D ARTERIAL NETWORK MODEL SIMULATION. Artery Research, 2018, 24, 120.	0.6	0
8	Role of ERK1/2 activation and nNOS uncoupling on endothelial dysfunction induced by lysophosphatidylcholine. Atherosclerosis, 2017, 258, 108-118.	0.8	21
9	Hemodynamic Impact of the Câ€Pulse Cardiac Support Device: A Oneâ€Dimensional Arterial Model Study. Artificial Organs, 2017, 41, E141-E154.	1.9	5
10	nNOS uncoupling by oxidized LDL: Implications in atherosclerosis. Free Radical Biology and Medicine, 2017, 113, 335-346.	2.9	8
11	Numerical assessment and comparison of pulse wave velocity methods aiming at measuring aortic stiffness. Physiological Measurement, 2017, 38, 1953-1967.	2.1	25
12	Contribution of the Arterial System and the Heart to Blood Pressure during Normal Aging â€" A Simulation Study. PLoS ONE, 2016, 11, e0157493.	2.5	24
13	A New Adjustable Glaucoma Drainage Device. , 2014, 55, 1848.		27
14	In Vivo Testing of a Novel Adjustable Glaucoma Drainage Device. , 2014, 55, 7520.		14
15	Influence of segmentation on morphological parameters and computed hemodynamics in cerebral aneurysms. Journal of Biorheology, 2013, 26, 44-57.	0.5	3
16	Effects of Isoflurane Anesthesia on Aortic Compliance and Systemic Hemodynamics in Compliant and Noncompliant Aortas. Journal of Cardiothoracic and Vascular Anesthesia, 2013, 27, 1282-1288.	1.3	7
17	Physiological simulation of blood flow in the aorta: Comparison of hemodynamic indices as predicted by 3-D FSI, 3-D rigid wall and 1-D models. Medical Engineering and Physics, 2013, 35, 784-791.	1.7	137
18	Arginase inhibition prevents the low shear stress-induced development of vulnerable atherosclerotic plaques in ApoEâ^'/â^' mice. Atherosclerosis, 2013, 227, 236-243.	0.8	27

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19	The activation of the cannabinoid receptor type 2 reduces neutrophilic protease-mediated vulnerability in atherosclerotic plaques. European Heart Journal, 2012, 33, 846-856.	2.2	81
20	Update on the Role of Cannabinoid Receptors after Ischemic Stroke. Mediators of Inflammation, 2012, 2012, 1-8.	3.0	34
21	Generic and patient-specific models of the arterial tree. Journal of Clinical Monitoring and Computing, 2012, 26, 375-382.	1.6	11
22	Wall properties of the apolipoprotein E-deficient mouse aorta. Atherosclerosis, 2012, 223, 314-320.	0.8	16
23	Patient-specific mean pressure drop in the systemic arterial tree, a comparison between 1-D and 3-D models. Journal of Biomechanics, 2012, 45, 2499-2505.	2.1	33
24	Systolic Hypertension Mechanisms: Effect of Global and Local Proximal Aorta Stiffening on Pulse Pressure. Annals of Biomedical Engineering, 2012, 40, 742-749.	2.5	42
25	Large artery biomechanical adaptation induced by flow-overload. , 2011, , .		0
26	Pulse Wave Propagation in the Arterial Tree. Annual Review of Fluid Mechanics, 2011, 43, 467-499.	25.0	287
27	A structural constitutive model considering angular dispersion and waviness of collagen fibres of rabbit facial veins. BioMedical Engineering OnLine, 2011, 10, 18.	2.7	22
28	Validation of a patient-specific one-dimensional model of the systemic arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H1173-H1182.	3.2	167
29	A constituent-based model of age-related changes in conduit arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H1286-H1301.	3.2	23
30	Biomechanical, morphological and zero-stress state characterization of jugular vein remodeling in arteriovenous fistulas for hemodialysis. Biorheology, 2010, 47, 297-319.	0.4	15
31	Experimental characterization of the distribution of collagen fiber recruitment. Journal of Biorheology, 2010, 24, 84-93.	0.5	36
32	Local Hemodynamics and Intimal Hyperplasia at the Venous Side of a Porcine Arteriovenous Shunt. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 681-690.	3.2	30
33	Snapshots of Hemodynamics. , 2010, , .		119
34	Autonomous Effects of Shear Stress and Cyclic Circumferential Stretch regarding Endothelial Dysfunction and Oxidative Stress: An ex vivo Arterial Model. Journal of Vascular Research, 2010, 47, 336-345.	1.4	27
35	Cardiovascular effects of arginase inhibition in spontaneously hypertensive rats with fully developed hypertension. Cardiovascular Research, 2010, 87, 569-577.	3.8	95
36	Reduced cyclic stretch, endothelial dysfunction, and oxidative stress: an ex vivo model. Cardiovascular Pathology, 2010, 19, e91-e98.	1.6	44

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37	Regulation of arginase pathway in response to wall shear stress. Atherosclerosis, 2010, 210, 63-70.	0.8	22
38	The Effect of Collagen Fiber Directional Distribution on the Mechanical Response of the Vascular Wall. , 2009, , .		0
39	Left Ventricular Hypertrophy Induced by Reduced Aortic Compliance. Journal of Vascular Research, 2009, 46, 417-425.	1.4	54
40	Influence of inlet boundary conditions on the local haemodynamics of intracranial aneurysms. Computer Methods in Biomechanics and Biomedical Engineering, 2009, 12, 431-444.	1.6	52
41	Differential Effects of Reduced Cyclic Stretch and Perturbed Shear Stress Within the Arterial Wall and on Smooth Muscle Function. American Journal of Hypertension, 2009, 22, 1250-1257.	2.0	8
42	Arterial remodeling in response to increased blood flow using a constituent-based model. Journal of Biomechanics, 2009, 42, 531-536.	2.1	9
43	Validation of a one-dimensional model of the systemic arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H208-H222.	3.2	497
44	A Structure-Based Model of Arterial Remodeling in Response to Sustained Hypertension. Journal of Biomechanical Engineering, 2009, 131, 101004.	1.3	24
45	On the in-series and in-parallel contribution of elastin assessed by a structure-based biomechanical model of the arterial wall. Journal of Biomechanics, 2008, 41, 737-743.	2.1	14
46	Effect of an Abdominal Aortic Aneurysm on Wave Reflection in the Aorta. IEEE Transactions on Biomedical Engineering, 2008, 55, 1602-1611.	4.2	58
47	A Structural Model of the Venous Wall Considering Elastin Anisotropy. Journal of Biomechanical Engineering, 2008, 130, 031017.	1.3	38
48	Effects of Reduced Cyclic Stretch on Vascular Smooth Muscle Cell Function of Pig Carotids Perfused Ex Vivo. American Journal of Hypertension, 2008, 21, 425-431.	2.0	48
49	Individualization of transfer function in estimation of central aortic pressure from the peripheral pulse is not required in patients at rest. Journal of Applied Physiology, 2008, 105, 1858-1863.	2.5	59
50	Arterial remodeling in response to hypertension using a constituent-based model. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H3130-H3139.	3.2	37
51	Arterial pressure transfer characteristics: effects of travel time. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H800-H807.	3.2	47
52	Transcriptional and post-transcriptional regulation of preproendothelin-1 by plaque-prone hemodynamics. Atherosclerosis, 2007, 194, 383-390.	0.8	10
53	Structural strain energy function applied to the ageing of the human aorta. Journal of Biomechanics, 2007, 40, 3061-3069.	2.1	69
54	Plaque-prone hemodynamics impair endothelial function in pig carotid arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H2320-H2328.	3.2	89

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55	Conductance catheter-based assessment of arterial input impedance, arterial function, and ventricular-vascular interaction in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H1157-H1164.	3.2	51
56	Arterial Wall Response to ex vivo Exposure to Oscillatory Shear Stress. Journal of Vascular Research, 2005, 42, 535-544.	1.4	62
57	Shear Stress and Cyclic Circumferential Stretch, But Not Pressure, Alter Connexin43 Expression in Endothelial Cells. Cell Communication and Adhesion, 2005, 12, 261-270.	1.0	47
58	A constitutive formulation of arterial mechanics including vascular smooth muscle tone. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H1335-H1343.	3.2	160
59	A strain energy function for arteries accounting for wall composition and structure. Journal of Biomechanics, 2004, 37, 989-1000.	2.1	301
60	An ultrasound-based method for determining pulse wave velocity in superficial arteries. Journal of Biomechanics, 2004, 37, 1615-1622.	2.1	132
61	Functional, mechanical and geometrical adaptation of the arterial wall of a non-axisymmetric artery in vitro. Journal of Hypertension, 2004, 22, 339-347.	0.5	17
62	Systemic and pulmonary hemodynamics assessed with a lumped-parameter heart-arterial interaction model. Journal of Engineering Mathematics, 2003, 47, 185-199.	1.2	57
63	Relation of effective arterial elastance to arterial system properties. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 282, H1041-H1046.	3.2	126
64	Arterial elastance and heart-arterial coupling in aortic regurgitation are determined by aortic leak severity. American Heart Journal, 2002, 144, 568-576.	2.7	5
65	Arterial elastance and heart-arterial coupling in aortic regurgitation are determined by aortic leak severity. American Heart Journal, 2002, 144, 568-576.	2.7	8
66	Effects of longitudinal stretch on VSM tone and distensibility of muscular conduit arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 283, H2599-H2605.	3.2	34
67	Estimation of local aortic elastic properties with MRI. Magnetic Resonance in Medicine, 2002, 47, 649-654.	3.0	124
68	Predicting systolic and diastolic aortic blood pressure and stroke volume in the intact sheep. Journal of Biomechanics, 2001, 34, 41-50.	2.1	39
69	Left ventricular wall stress normalization in chronic pressure-overloaded heart: a mathematical model study. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H1120-H1127.	3.2	27
70	Quantification of the Contribution of Cardiac and Arterial Remodeling to Hypertension. Hypertension, 2000, 36, 760-765.	2.7	87
71	Pulmonary arterial compliance in dogs and pigs: the three-element windkessel model revisited. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H725-H731.	3.2	43
72	Total arterial inertance as the fourth element of the windkessel model. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H81-H88.	3.2	202

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73	Pulse Pressure Method and the Area Method for the Estimation of Total Arterial Compliance in Dogs: Sensitivity to Wave Reflection Intensity. Annals of Biomedical Engineering, 1999, 27, 480-485.	2.5	54
74	Differences in the Mechanical Properties of the Rat Carotid Artery In Vivo, In Situ, and In Vitro. Hypertension, 1998, 32, 180-185.	2.7	15
75	Determinants of Pulse Pressure. Hypertension, 1998, 32, 556-559.	2.7	63
76	Physical basis of pressure transfer from periphery to aorta: a model-based study. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 274, H1386-H1392.	3.2	54
77	Non-invasive method for the assessment of non-linear elastic properties and stress of forearm arteries in vivo. Journal of Hypertension, 1992, 10, S23???S26.	0.5	8