Irina N Sidorenko

List of Publications by Year
in descending order

37 papers	235 citations	1040056 9 h-index	996975 15 g-index
37 all docs	37 docs citations	37 times ranked	250 citing authors

#	Article	IF	Citations
1	Accounting for arterial and capillary blood gases for calculation of cerebral blood flow in preterm infants. European Journal of Pediatrics, 2022, , 1.	2.7	0
2	Modeling of the cerebral blood circulation in a capillary network accounting for the influence of the endothelial surface layer. Computer Methods and Programs in Biomedicine, 2022, 224, 107008.	4.7	2
3	Non-Stationary Model of Cerebral Oxygen Transport with Unknown Sources. Mathematics, 2021, 9, 910.	2.2	1
4	An inverse problem for equations of cerebral oxygen transport. Applied Mathematics and Computation, 2021, 402, 126154.	2.2	2
5	Modeling the pressure distribution in a spatially averaged cerebral capillary network. Mathematical Control and Related Fields, 2021, 11, 643.	1.1	2
6	Mathematical modeling of the hematocrit influence on cerebral blood flow in preterm infants. PLoS ONE, 2021, 16, e0261819.	2.5	1
7	Nonstationary Model of Oxygen Transport in Brain Tissue. Computational and Mathematical Methods in Medicine, 2020, 2020, 1-9.	1.3	8
8	Assessing haemorrhage-critical values of cerebral blood flow by modelling biomechanical stresses on capillaries in the immature brain. Scientific Reports, 2020, 10, 14196.	3.3	1
9	Machine learning models for identifying preterm infants at risk of cerebral hemorrhage. PLoS ONE, 2020, 15, e0227419.	2.5	17
10	Assessing key clinical parameters before and after intraventricular hemorrhage in very preterm infants. European Journal of Pediatrics, 2020, 179, 929-937.	2.7	14
11	Accounting for Tube Hematocrit in Modeling of Blood Flow in Cerebral Capillary Networks. Computational and Mathematical Methods in Medicine, 2019, 2019, 1-10.	1.3	6
12	Postnatal Paraclinical Parameters Associated to Occurrence of Intracerebral Hemorrhage in Preterm Infants. Neuropediatrics, 2019, 50, 103-110.	0.6	3
13	Continuum model of oxygen transport in brain. Journal of Mathematical Analysis and Applications, 2019, 474, 1352-1363.	1.0	10
14	Extended model of impaired cerebral autoregulation in preterm infants: Heuristic feedback control. Mathematical Biosciences and Engineering, 2019, 16, 2334-2352.	1.9	1
15	Direct modeling of blood flow through the vascular network of the germinal matrix. Computers in Biology and Medicine, 2018, 92, 147-155.	7.0	16
16	Modeling Cerebral Blood Flow Dependence on Carbon Dioxide and Mean Arterial Blood Pressure in the Immature Brain With Accounting for the Germinal Matrix. Frontiers in Neurology, 2018, 9, 812.	2.4	11
17	The PAMONO-Sensor Enables Quantification of Individual Microvesicles and Estimation of Nanoparticle Size Distribution. Proceedings (mdpi), 2017, 1, 744.	0.2	0
18	Application of the PAMONO-Sensor for Quantification of Microvesicles and Determination of Nano-Particle Size Distribution. Sensors, 2017, 17, 244.	3.8	23

#	ARTICLE	IF	CITATIONS
19	Computer assisted detection and quantification of single adsorbing nanoparticles by differential surface plasmon microscopy. Mikrochimica Acta, 2016, 183, 101-109.	5.0	31
20	Prediction of bone strength by Î¼CT and MDCT-based finite-element-models: How much spatial resolution is needed?. European Journal of Radiology, 2014, 83, e36-e42.	2.6	36
21	Scaling relations between trabecular bone volume fraction and microstructure at different skeletal sites. Bone, 2013, 57, 377-383.	2.9	9
22	Application of anisotropic structure measures for the classification of &mu;-CT images of human trabecular bone. Proceedings of SPIE, 2012, , .	0.8	0
23	Similarities and differences in the mass-structure scaling relations of the trabecular bone taken from different locations in the femur. , 2012, , .		0
24	Assessment of global morphological and topological changes in trabecular structure under the bone resorption process. , 2012, , .		0
25	Reproducibility of Trabecular Bone Structure Measurements of the Distal Radius at 1.5 and 3.0 T Magnetic Resonance Imaging. Journal of Computer Assisted Tomography, 2012, 36, 623-626.	0.9	15
26	Simulating Bone Atrophy and Its Effects on the Structure and Stability of the Trabecular Bone. , 2012, , .		1
27	Structure based classification of Î¼-CT images of human trabecular bone using local Minkowski Functionals. Proceedings of SPIE, 2011, , .	0.8	2
28	Scaling relations between bone volume and bone structure as found using 3D Ã‚µCT images of the trabecular bone taken from different skeletal sites. , 2010, , .		0
29	Assessing texture measures with respect to their sensitivity to scale-dependent higher order correlations in medical images using surrogates. , 2010, , .		1
30	Advantage of topological texture measures derived from Minkowski functionals (MF) and scaling index method (SIM) in comparison with biomechanical finite elements method (FEM) for the prediction of osteoporosis. Proceedings of SPIE, 2010, , .	0.8	2
31	Assessment of the human trabecular bone structure using Minkowski Functionals. Proceedings of SPIE, 2009, , .	0.8	10
32	Role of trabecular microfractures in failure of human vertebrae estimated by the finite element method. , 2009, , .		3
33	Comparing the sensitivity of wavelets, Minkowski functionals, and scaling indices to higher order correlations in MR images of the trabecular bone using surrogates. , 2009, , .		1
34	Comparison and combination of scaling index method and Minkowski functionals in the analysis of high resolution magnetic resonance images of the distal radius in vitro. , 2008, , .		3
35	Studying the effect of noise on the performance of 2D and 3D texture measures for quantifying the trabecular bone structure as obtained with high resolution MR imaging at 3 tesla. , 2008, , .		2
36	The Locally Adapted Scaling Vector Method: A New Tool for Quantifying Anisotropic Structures in Bone Images. , 0, , .		1

#	Article	IF	Citations
37	Scaling Index Method (SIM): A Novel Technique for Assessment of Local Topological Properties of Porous and Irregular Structures. , 0, , .		0