

# Irina N Sidorenko

## List of Publications by Year in descending order

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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	Prediction of bone strength by $\mu$ CT and MDCT-based finite-element-models: How much spatial resolution is needed?. <i>European Journal of Radiology</i> , 2014, 83, e36-e42.	2.6	36
2	Computer assisted detection and quantification of single adsorbing nanoparticles by differential surface plasmon microscopy. <i>Mikrochimica Acta</i> , 2016, 183, 101-109.	5.0	31
3	Application of the PAMONO-Sensor for Quantification of Microvesicles and Determination of Nano-Particle Size Distribution. <i>Sensors</i> , 2017, 17, 244.	3.8	23
4	Machine learning models for identifying preterm infants at risk of cerebral hemorrhage. <i>PLoS ONE</i> , 2020, 15, e0227419.	2.5	17
5	Direct modeling of blood flow through the vascular network of the germinal matrix. <i>Computers in Biology and Medicine</i> , 2018, 92, 147-155.	7.0	16
6	Reproducibility of Trabecular Bone Structure Measurements of the Distal Radius at 1.5 and 3.0 T Magnetic Resonance Imaging. <i>Journal of Computer Assisted Tomography</i> , 2012, 36, 623-626.	0.9	15
7	Assessing key clinical parameters before and after intraventricular hemorrhage in very preterm infants. <i>European Journal of Pediatrics</i> , 2020, 179, 929-937.	2.7	14
8	Modeling Cerebral Blood Flow Dependence on Carbon Dioxide and Mean Arterial Blood Pressure in the Immature Brain With Accounting for the Germinal Matrix. <i>Frontiers in Neurology</i> , 2018, 9, 812.	2.4	11
9	Assessment of the human trabecular bone structure using Minkowski Functionals. <i>Proceedings of SPIE</i> , 2009, , .	0.8	10
10	Continuum model of oxygen transport in brain. <i>Journal of Mathematical Analysis and Applications</i> , 2019, 474, 1352-1363.	1.0	10
11	Scaling relations between trabecular bone volume fraction and microstructure at different skeletal sites. <i>Bone</i> , 2013, 57, 377-383.	2.9	9
12	Nonstationary Model of Oxygen Transport in Brain Tissue. <i>Computational and Mathematical Methods in Medicine</i> , 2020, 2020, 1-9.	1.3	8
13	Accounting for Tube Hematocrit in Modeling of Blood Flow in Cerebral Capillary Networks. <i>Computational and Mathematical Methods in Medicine</i> , 2019, 2019, 1-10.	1.3	6
14	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
15	Role of trabecular microfractures in failure of human vertebrae estimated by the finite element method. , 2009, , .		3
16	Postnatal Paraclinical Parameters Associated to Occurrence of Intracerebral Hemorrhage in Preterm Infants. <i>Neuropediatrics</i> , 2019, 50, 103-110.	0.6	3
17	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
18	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. <i>Proceedings of SPIE</i> , 2010, , .	0.8	2

#	ARTICLE	IF	CITATIONS
19	Structure based classification of $\mu$ -CT images of human trabecular bone using local Minkowski Functionals. Proceedings of SPIE, 2011, , .	0.8	2
20	An inverse problem for equations of cerebral oxygen transport. Applied Mathematics and Computation, 2021, 402, 126154.	2.2	2
21	Modeling the pressure distribution in a spatially averaged cerebral capillary network. Mathematical Control and Related Fields, 2021, 11, 643.	1.1	2
22	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
23	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
24	Assessing texture measures with respect to their sensitivity to scale-dependent higher order correlations in medical images using surrogates. , 2010, , .		1
25	Simulating Bone Atrophy and Its Effects on the Structure and Stability of the Trabecular Bone. , 2012, , .		1
26	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
27	Non-Stationary Model of Cerebral Oxygen Transport with Unknown Sources. Mathematics, 2021, 9, 910.	2.2	1
28	Extended model of impaired cerebral autoregulation in preterm infants: Heuristic feedback control. Mathematical Biosciences and Engineering, 2019, 16, 2334-2352.	1.9	1
29	The Locally Adapted Scaling Vector Method: A New Tool for Quantifying Anisotropic Structures in Bone Images. , 0, , .		1
30	Mathematical modeling of the hematocrit influence on cerebral blood flow in preterm infants. PLoS ONE, 2021, 16, e0261819.	2.5	1
31	Scaling relations between bone volume and bone structure as found using 3D $\mu$ CT images of the trabecular bone taken from different skeletal sites. , 2010, , .		0
32	Application of anisotropic structure measures for the classification of $\mu$ -CT images of human trabecular bone. Proceedings of SPIE, 2012, , .	0.8	0
33	Similarities and differences in the mass-structure scaling relations of the trabecular bone taken from different locations in the femur. , 2012, , .		0
34	Assessment of global morphological and topological changes in trabecular structure under the bone resorption process. , 2012, , .		0
35	The PAMONO-Sensor Enables Quantification of Individual Microvesicles and Estimation of Nanoparticle Size Distribution. Proceedings (mdpi), 2017, 1, 744.	0.2	0
36	Scaling Index Method (SIM): A Novel Technique for Assessment of Local Topological Properties of Porous and Irregular Structures. , 0, , .		0

#	ARTICLE	IF	CITATIONS
37	Accounting for arterial and capillary blood gases for calculation of cerebral blood flow in preterm infants. <i>European Journal of Pediatrics</i> , 2022, , 1.	2.7	0