Igor V Pivkin

List of Publications by Year
in descending order

40 papers	2,494 citations	236925 25 h-index	345221 36 g-index
41 all docs	41 docs citations	41 times ranked	2686 citing authors

#	Article	IF	Citations
1	Reverse engineering directed gene regulatory networks from transcriptomics and proteomics data of biomining bacterial communities with approximate Bayesian computation and steady-state signalling simulations. BMC Bioinformatics, 2020, 21, 23.	2.6	9
2	Computational Models of Eukaryotic Cells in Health and Disease. , 2020, , 2611-2623.		0
3	Deep neural networks outperform human expert's capacity in characterizing bioleaching bacterial biofilm composition. Biotechnology Reports (Amsterdam, Netherlands), 2019, 22, e00321.	4.4	57
4	Weak Iron Oxidation by Sulfobacillus thermosulfidooxidans Maintains a Favorable Redox Potential for Chalcopyrite Bioleaching. Frontiers in Microbiology, 2018, 9, 3059.	3.5	35
5	Computational Models of Eukaryotic Cells in Health and Disease. , 2018, , 1-13.		0
6	Probing eukaryotic cell mechanics via mesoscopic simulations. PLoS Computational Biology, 2017, 13, e1005726.	3.2	31
7	A canonical replica exchange molecular dynamics implementation with normal pressure in each replica. Journal of Chemical Physics, 2016, 145, 044903.	3.0	6
8	Coarse kMC-based replica exchange algorithms for the accelerated simulation of protein folding in explicit solvent. Physical Chemistry Chemical Physics, 2016, 18, 13052-13065.	2.8	11
9	Biomechanics of red blood cells in human spleen and consequences for physiology and disease. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7804-7809.	7.1	193
10	The SIB Swiss Institute of Bioinformatics' resources: focus on curated databases. Nucleic Acids Research, 2016, 44, D27-D37.	14.5	64
11	Inflow/Outflow Boundary Conditions for Particle-Based Blood Flow Simulations: Application to Arterial Bifurcations and Trees. PLoS Computational Biology, 2015, 11, e1004410.	3.2	51
12	S100A4 and its role in metastasis â€" simulations of knockout and amplification of epithelial growth factor receptor and matrix metalloproteinases. Molecular BioSystems, 2015, 11, 2247-2254.	2.9	20
13	A kMC-MD method with generalized move-sets for the simulation of folding of Î±-helical and Î²-stranded peptides. Journal of Chemical Physics, 2015, 142, 144903.	3.0	10
14	Systems Biology of Acidophile Biofilms for Efficient Metal Extraction. Advanced Materials Research, 2015, 1130, 312-315.	0.3	1
15	The in-silico lab-on-a-chip. , 2015, , .		14
16	Towards an Engineering Methodology for Multi-model Scientific Simulations. , 2015, , .		1
17	S100A4 and its role in metastasis â€" computational integration of data on biological networks. Molecular BioSystems, 2015, 11, 2238-2246.	2.9	14
18	A polarizable coarse-grained protein model for dissipative particle dynamics. Physical Chemistry Chemical Physics, 2015, 17, 24452-24461.	2.8	26

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19	How water layers on graphene affect folding and adsorption of TrpZip2. Journal of Chemical Physics, 2014, 141, 22D511.	3.0	8
20	Structure and Response to Flow of the Glycocalyx Layer. Biophysical Journal, 2014, 106, 232-243.	0.5	70
21	A polarizable coarse-grained water model for dissipative particle dynamics. Journal of Chemical Physics, 2014, 141, 164506.	3.0	29
22	Hydrodynamic effects on flow-induced polymer translocation through a microfluidic channel. Polymer, 2013, 54, 4309-4317.	3.8	22
23	The Fluid Mechanics of Cancer and Its Therapy. Annual Review of Fluid Mechanics, 2013, 45, 325-355.	25.0	117
24	Lipid bilayer and cytoskeletal interactions in a red blood cell. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13356-13361.	7.1	155
25	Multiscale modelling of hematologic disorders. Modeling, Simulation and Applications, 2012, , 289-331.	1.3	2
26	A microfabricated deformability-based flow cytometer with application to malaria. Lab on A Chip, 2011, 11, 1065.	6.0	223
27	Combined Simulation and Experimental Study of Large Deformation of Red Blood Cells in Microfluidic Systems. Annals of Biomedical Engineering, 2011, 39, 1041-1050.	2.5	88
28	Effect of red blood cells on platelet aggregation. IEEE Engineering in Medicine and Biology Magazine, 2009, 28, 32-37.	0.8	41
29	Shape Transformations of Membrane Vesicles from Amphiphilic Triblock Copolymers: A Dissipative Particle Dynamics Simulation Study. Macromolecules, 2009, 42, 3195-3200.	4.8	92
30	Velocity limit in DPD simulations of wall-bounded flows. Journal of Computational Physics, 2008, 227, 2540-2559.	3.8	88
31	Single-particle hydrodynamics in DPD: A new formulation. Europhysics Letters, 2008, 84, 10012.	2.0	53
32	Accurate Coarse-Grained Modeling of Red Blood Cells. Physical Review Letters, 2008, 101, 118105.	7.8	308
33	Coarse-graining limits in open and wall-bounded dissipative particle dynamics systems. Journal of Chemical Physics, 2006, 124, 184101.	3.0	69
34	Controlling Density Fluctuations in Wall-Bounded Dissipative Particle Dynamics Systems. Physical Review Letters, 2006, 96, 206001.	7.8	99
35	Blood flow velocity effects and role of activation delay time on growth and form of platelet thrombi. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17164-17169.	7.1	149
36	Combined effects of pulsatile flow and dynamic curvature on wall shear stress in a coronary artery bifurcation model. Journal of Biomechanics, 2005, 38, 1283-1290.	2.1	43

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37	A new method to impose no-slip boundary conditions in dissipative particle dynamics. Journal of Computational Physics, 2005, 207, 114-128.	3.8	173
38	A comparative study between dissipative particle dynamics and molecular dynamics for simple- and complex-geometry flows. Journal of Chemical Physics, 2005, 123, 104107.	3.0	68
39	Visualization of blood platelets in a virtual environment. , 2004, , .		0
40	Feature article - Particle flurries synoptic 3d pulsatile flow visualization. IEEE Computer Graphics and Applications, 2004, 24, 76-85.	1.2	36