Ivan CimrÃ¡k

List of Publications by Year
in descending order

24 papers	120 citations	1478505 6 h-index	1474206 9 g-index
25 all docs	25 docs citations	25 times ranked	67 citing authors

#	Article	IF	Citations
1	Computational Study of Inertial Flows in Helical Microchannels. Applied Sciences (Switzerland), 2022, 12, 3859.	2.5	0
2	Modelling ofÂArbitrary Shaped Channels andÂObstacles byÂDistance Function. Lecture Notes in Computer Science, 2022, , 28-41.	1.3	1
3	Contact area of cell cluster in a simple bifurcation. , 2022, , .		1
4	Computational study of red blood cell behaviour in shear flow for different bending stiffness of the membrane. , 2021, , .		0
5	Modeling Red Blood Cell Viscosity Contrast Using Inner Soft Particle Suspension. Micromachines, 2021, 12, 974.	2.9	3
6	Springâ€network model of red blood cell: From membrane mechanics to validation. International Journal for Numerical Methods in Fluids, 2020, 92, 1368-1393.	1.6	14
7	PyOIF: Computational tool for modelling of multi-cell flows in complex geometries. PLoS Computational Biology, 2020, 16, e1008249.	3.2	15
8	Proof-of-concept model of red blood cell with coarse-grained hemoglobin. , 2020, , .		0
9	PyOIF: Computational tool for modelling of multi-cell flows in complex geometries. , 2020, 16, e1008249.		0
10	PyOIF: Computational tool for modelling of multi-cell flows in complex geometries. , 2020, 16, e1008249.		0
11	PyOIF: Computational tool for modelling of multi-cell flows in complex geometries. , 2020, 16, e1008249.		0
12	PyOIF: Computational tool for modelling of multi-cell flows in complex geometries. , 2020, 16, e1008249.		0
13	Cell Damage Index as Computational Indicator for Blood Cell Activation and Damage. Artificial Organs, 2018, 42, 746-755.	1.9	12
14	Effect of dissipative coupling parameter in a computational model on the inclination angle of red blood cells in a shear flow. , 2018, , .		3
15	Dissipative Coupling of Fluid and Immersed Objects for Modelling of Cells in Flow. Computational and Mathematical Methods in Medicine, 2018, 2018, 1-11.	1.3	11
16	Dynamical properties of red blood cell model in shear flow. , 2017, , .		2
17	The calibration of fluid-object interaction in immersed boundary method. EPJ Web of Conferences, 2017, 143, 02013.	0.3	6
18	Simulation study of rare cell trajectories and capture rate in periodic obstacle arrays. Journal of Computational Science, 2016, 17, 370-376.	2.9	11

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19	Collision rates for rare cell capture in periodic obstacle arrays strongly depend on density of cell suspension. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1525-1530.	1.6	6
20	Nonâ€uniform force allocation for area preservation in spring network models. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02757.	2.1	5
21	Recent advances in mesh-based modeling of individual cells in biological fluids. , 2014, , .		3
22	Energy contributions of different elastic moduli in mesh-based modeling of deformable objects. , 2014, , .		4
23	Mixed Tikhonov regularization in Banach spaces based on domain decomposition. Applied Mathematics and Computation, 2012, 218, 11583-11596.	2.2	4
24	Computational Blood Cell Mechanics. , 0, , .		18