Yohan Davit

List of Publications by Year
in descending order

22 papers	1,543 citations	567281 15 h-index	677142 22 g-index
22 all docs	22 docs citations	22 times ranked	2396 citing authors

#	Article	IF	Citations
1	A Domain Decomposition Approach to Finite-Epsilon Homogenization of Scalar Transport in Porous Media. SIAM Journal on Applied Mathematics, 2019, 79, 1797-1822.	1.8	1
2	Neutrophil adhesion in brain capillaries reduces cortical blood flow and impairs memory function in Alzheimer's disease mouse models. Nature Neuroscience, 2019, 22, 413-420.	14.8	316
3	One-Phase and Two-Phase Flow in Highly Permeable Porous Media. Heat Transfer Engineering, 2019, 40, 391-409.	1.9	9
4	Cooperation, competition and antibiotic resistance in bacterial colonies. ISME Journal, 2018, 12, 1582-1593.	9.8	160
5	Inertial Sensitivity of Porous Microstructures. Transport in Porous Media, 2018, 125, 211-238.	2.6	7
6	Multiscale modelling of blood flow in cerebral microcirculation: Details at capillary scale control accuracy at the level of the cortex. PLoS ONE, 2018, 13, e0189474.	2.5	89
7	Effect of disorder in the pore-scale structure on the flow of shear-thinning fluids through porous media. Journal of Non-Newtonian Fluid Mechanics, 2018, 261, 99-110.	2.4	10
8	Modeling flow in porous media with rough surfaces: Effective slip boundary conditions and application to structured packings. Chemical Engineering Science, 2017, 165, 131-146.	3.8	31
9	Cell morphology drives spatial patterning in microbial communities. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E280-E286.	7.1	136
10	Polymer Flow Through Porous Media: Numerical Prediction of the Contribution of Slip to the Apparent Viscosity. Transport in Porous Media, 2017, 119, 521-538.	2.6	6
11	Technical Notes on Volume Averaging in Porous Media I: How to Choose a Spatial Averaging Operator for Periodic and Quasiperiodic Structures. Transport in Porous Media, 2017, 119, 555-584.	2.6	18
12	Transition in the Flow of Power-Law Fluids through Isotropic Porous Media. Physical Review Letters, 2016, 117, 074502.	7.8	37
13	A two-pressure model for slightly compressible single phase flow in bi-structured porous media. Chemical Engineering Science, 2013, 96, 55-70.	3.8	13
14	Homogenization via formal multiscale asymptotics and volume averaging: How do the two techniques compare?. Advances in Water Resources, 2013, 62, 178-206.	3.8	123
15	Hydrodynamic dispersion within porous biofilms. Physical Review E, 2013, 87, 012718.	2.1	29
16	Chaste: An Open Source C++ Library for Computational Physiology and Biology. PLoS Computational Biology, 2013, 9, e1002970.	3.2	375
17	Comment on "Frequency-dependent dispersion in porous media" Physical Review E, 2012, 86, 013201; discussion 013202.	2.1	7
18	Correspondence Between One- and Two-Equation Models for Solute Transport in Two-Region Heterogeneous Porous Media. Transport in Porous Media, 2012, 95, 213-238.	2.6	24

#	Article	IF	Citations
19	Imaging biofilm in porous media using X-ray computed microtomography. Journal of Microscopy, 2011, 242, 15-25.	1.8	72
20	Modeling non-equilibrium mass transport in biologically reactive porous media. Advances in Water Resources, 2010, 33, 1075-1093.	3.8	32
21	Equivalence between volume averaging and moments matching techniques for mass transport models in porous media. International Journal of Heat and Mass Transfer, 2010, 53, 4985-4993.	4.8	21
22	Intriguing viscosity effects in confined suspensions: A numerical study. Europhysics Letters, 2008, 83, 64001.	2.0	27