

# Franck PlourabouÃ©

## List of Publications by Year in descending order

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62  
papers

1,391  
citations

279798

23  
h-index

345221

36  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1551  
citing authors

#	ARTICLE	IF	CITATIONS
1	From Homogeneous to Fractal Normal and Tumorous Microvascular Networks in the Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2007, 27, 293-303.	4.3	105
2	X-ray high-resolution vascular network imaging. <i>Journal of Microscopy</i> , 2004, 215, 139-148.	1.8	82
3	Aperture of rough cracks. <i>Physical Review E</i> , 1995, 51, 1675-1685.	2.1	73
4	Tracer Dispersion in Rough Open Cracks. <i>Transport in Porous Media</i> , 1998, 32, 97-116.	2.6	64
5	A 3D investigation shows that angiogenesis in primate cerebral cortex mainly occurs at capillary level. <i>International Journal of Developmental Neuroscience</i> , 2009, 27, 185-196.	1.6	62
6	Cerebral Blood Flow Modeling in Primate Cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 1860-1873.	4.3	59
7	Gap Filling of 3-D Microvascular Networks by Tensor Voting. <i>IEEE Transactions on Medical Imaging</i> , 2008, 27, 674-687.	8.9	54
8	Turbulence of swarming sperm. <i>Physical Review E</i> , 2015, 92, 032722.	2.1	54
9	Electrohydrodynamic Thrust for In-Atmosphere Propulsion. <i>AIAA Journal</i> , 2017, 55, 4296-4305.	2.6	52
10	Regionalization of browning revealed by whole subcutaneous adipose tissue imaging. <i>Obesity</i> , 2016, 24, 1081-1089.	3.0	46
11	Experimental study of the transport properties of rough self-affine fractures. <i>Journal of Contaminant Hydrology</i> , 2000, 46, 295-318.	3.3	45
12	A general formulation of Bead Models applied to flexible fibers and active filaments at low Reynolds number. <i>Journal of Computational Physics</i> , 2015, 286, 14-37.	3.8	44
13	Averaged Reynolds Equation for Flows between Rough Surfaces in Sliding Motion. <i>Transport in Porous Media</i> , 2002, 48, 291-313.	2.6	42
14	Symmetry-breaking phase transitions in highly concentrated semen. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160575.	3.4	42
15	Kelvin's Helmholtz instability in a Hele-Shaw cell. <i>Physics of Fluids</i> , 2002, 14, 922-929.	4.0	35
16	Multi-scale roughness transfer in cold metal rolling. <i>Tribology International</i> , 1999, 32, 45-57.	5.9	34
17	Large-scale simulation of steady and time-dependent active suspensions with the force-coupling method. <i>Journal of Computational Physics</i> , 2015, 302, 524-547.	3.8	33
18	Fluctuation dynamics of a single magnetic chain. <i>Physical Review E</i> , 1996, 54, 5502-5510.	2.1	30

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19	Electrohydrodynamic ionic wind, force field, and ionic mobility in a positive dc wire-to-cylinders corona discharge in air. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	30
20	Learning Induced Criticality In Consumers' Adoption Pattern: A Neural Network Approach. <i>Economics of Innovation and New Technology</i> , 1998, 6, 73-90.	3.4	28
21	Experimental study of the roughness of crumpled surfaces. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1996, 227, 173-182.	2.6	26
22	Numerical study of geometrical dispersion in self-affine rough fractures. <i>Physical Review E</i> , 1998, 58, 3334-3346.	2.1	24
23	Revisiting the positive DC corona discharge theory: Beyond Peek's and Townsend's law. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	24
24	3D analysis of the whole subcutaneous adipose tissue reveals a complex spatial network of interconnected lobules with heterogeneous browning ability. <i>Scientific Reports</i> , 2019, 9, 6684.	3.3	23
25	A New Approach to Model Confined Suspensions Flows in Complex Networks: Application to Blood Flow. <i>Transport in Porous Media</i> , 2010, 83, 171-194.	2.6	22
26	Experimental study of fracture surface roughness on rocks with crack velocity. <i>Physical Review E</i> , 1996, 53, 277-283.	2.1	21
27	Coupling and robustness of intra-cortical vascular territories. <i>NeuroImage</i> , 2012, 62, 408-417.	4.2	18
28	The Generalized Graetz Problem in Finite Domains. <i>SIAM Journal on Applied Mathematics</i> , 2012, 72, 99-123.	1.8	17
29	Numerical Analysis of a New Mixed Formulation for Eigenvalue Convection-Diffusion Problems. <i>SIAM Journal on Applied Mathematics</i> , 2009, 70, 658-676.	1.8	14
30	Broadband converging plasmon resonance at a conical nanotip. <i>Optics Express</i> , 2013, 21, 6609.	3.4	14
31	Toward quantitative three-dimensional microvascular networks segmentation with multiview light-sheet fluorescence microscopy. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	13
32	Simulations of Brownian tracer transport in squirmer suspensions. <i>IMA Journal of Applied Mathematics</i> , 2018, 83, 680-699.	1.6	11
33	From whole-organ imaging to in-silico blood flow modeling: A new multi-scale network analysis for revisiting tissue functional anatomy. <i>PLoS Computational Biology</i> , 2020, 16, e1007322.	3.2	10
34	Simple Patient-Based Transmantle Pressure and Shear Estimate From Cine Phase-Contrast MRI in Cerebral Aqueduct. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 2874-2883.	4.2	9
35	Shape optimization for the generalized Graetz problem. <i>Structural and Multidisciplinary Optimization</i> , 2014, 49, 993-1008.	3.5	9
36	Theoretical and numerical analysis of counter-flow parallel convective exchangers considering axial diffusion. <i>International Journal of Heat and Mass Transfer</i> , 2017, 107, 154-167.	4.8	9

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37	Flying with ionic wind. <i>Nature</i> , 2018, 563, 476-477.	27.8	9
38	On the Normalization of Cerebral Blood Flow. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 669-672.	4.3	8
39	Numerical computation of 3D heat transfer in complex parallel heat exchangers using generalized Graetz modes. <i>Journal of Computational Physics</i> , 2014, 268, 84-105.	3.8	8
40	Numerical study of ElectroAeroDynamic force and current resulting from ionic wind in emitter/collector systems. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	8
41	Light scattering from cold rolled aluminum surfaces. <i>Optics Communications</i> , 2001, 187, 289-294.	2.1	7
42	Quasi-static liquidâ€air drainage in narrow channels with variations in the gap. <i>Journal of Colloid and Interface Science</i> , 2006, 294, 165-175.	9.4	7
43	Multi-inception patterns of emitter array/collector systems in DC corona discharge. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 185203.	2.8	7
44	New objective measurements of semen wave motion are associated with fertility in sheep. <i>Reproduction, Fertility and Development</i> , 2018, 30, 889.	0.4	6
45	A network model of the coupling of ion channels with secondary messenger in cell signalling. <i>Network: Computation in Neural Systems</i> , 1992, 3, 393-406.	3.6	5
46	Enhanced evaporation from an oscillating liquid in a capillary tube. <i>International Journal of Heat and Mass Transfer</i> , 2016, 95, 288-295.	4.8	5
47	Identification of internal properties of fibres and micro-swimmers. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017, 473, 20160517.	2.1	5
48	Multi-scale two-domain numerical modeling of stationary positive DC corona discharge/drift-region coupling. <i>Journal of Computational Physics</i> , 2021, 443, 110517.	3.8	5
49	Title is missing!. <i>Fractals</i> , 1995, 3, 113.	3.7	5
50	Stationary convectionâ€diffusion between two co-axial cylinders. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 4901-4907.	4.8	4
51	Steady streaming confined between three-dimensional wavy surfaces. <i>Journal of Fluid Mechanics</i> , 2010, 657, 430-455.	3.4	4
52	MATHEMATICAL ANALYSIS OF PARALLEL CONVECTIVE EXCHANGERS WITH GENERAL LATERAL BOUNDARY CONDITIONS USING GENERALIZED GRAETZ MODES. <i>Mathematical Models and Methods in Applied Sciences</i> , 2014, 24, 627-665.	3.3	4
53	Analysis of vascular homogeneity and anisotropy on highâ€resolution primate brain imaging. <i>Human Brain Mapping</i> , 2017, 38, 5756-5777.	3.6	3
54	Convergence of the Generalized Volume Averaging Method on a Convection-Diffusion Problem: A Spectral Perspective. <i>SIAM Journal on Applied Mathematics</i> , 2005, 66, 122-152.	1.8	2

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55	Electrolyte Stability in a Nanochannel with Charge Regulation. Langmuir, 2011, 27, 11187-11198.	3.5	2
56	Thermal significance and optimal transfer in vessels bundles is influenced by vascular density. International Journal of Heat and Mass Transfer, 2019, 138, 1-10.	4.8	2
57	Analytical properties of Graetz modes in parallel and concentric configurations. Meccanica, 2020, 55, 1545-1559.	2.0	2
58	Title is missing!. Transport in Porous Media, 2001, 44, 281-304.	2.6	1
59	Critical point network for drainage between rough surfaces. Transport in Porous Media, 2007, 70, 257-277.	2.6	1
60	Attraction between two similar particles in an electrolyte: effects of Stern layer absorption. Anais Da Academia Brasileira De Ciencias, 2010, 82, 95-108.	0.8	1
61	Image-based effective medium approximation for fast permeability evaluation of porous media core samples. Computational Geosciences, 2021, 25, 105-117.	2.4	1
62	Source Identification of Propagating Waves Inside a Network. IEEE Transactions on Network Science and Engineering, 2022, 9, 1437-1450.	6.4	1