

Harold Auradou

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

1,472
citations

304602

22
h-index

330025

37
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66
all docs

66
docs citations

66
times ranked

1357
citing authors

#	ARTICLE	IF	CITATIONS
1	Run-to-Tumble Variability Controls the Surface Residence Times of <i>E. coli</i> Bacteria. <i>Physical Review Letters</i> , 2022, 128, .	2.9	12
2	Rheology of bacterial superfluids in viscous environments. <i>Soft Matter</i> , 2021, 17, 7004-7013.	1.2	7
3	Single-trajectory characterization of active swimmers in a flow. <i>Physical Review E</i> , 2021, 103, 032608.	0.8	3
4	The influence of motility on bacterial accumulation in a microporous channel. <i>Soft Matter</i> , 2021, 17, 893-902.	1.2	11
5	Influence of aspect ratio on vortex formation in X-junctions: Direct numerical simulations and eigenmode decomposition. <i>Physics of Fluids</i> , 2020, 32, 124105.	1.6	9
6	The Effect of Fracture Roughness on the Onset of Nonlinear Flow. <i>Water Resources Research</i> , 2020, 56, e2020WR028049.	1.7	28
7	Using Microfluidic Set-Up to Determine the Adsorption Rate of <i>Sporosarcina pasteurii</i> Bacteria on Sandstone. <i>Transport in Porous Media</i> , 2020, 132, 283-297.	1.2	11
8	A combined rheometry and imaging study of viscosity reduction in bacterial suspensions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2326-2331.	3.3	42
9	Swimming bacteria in Poiseuille flow: The quest for active Bretherton-Jeffery trajectories. <i>Europhysics Letters</i> , 2019, 126, 44003.	0.7	29
10	Three-dimensional flow structures in X-shaped junctions: Effect of the Reynolds number and crossing angle. <i>Physics of Fluids</i> , 2019, 31, .	1.6	14
11	Effect of motility on the transport of bacteria populations through a porous medium. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	30
12	Reversible and Irreversible Tracer Dispersion in an Oscillating Flow Inside a Model Rough Fracture. <i>Transport in Porous Media</i> , 2018, 122, 421-436.	1.2	0
13	<i>E. coli</i> ; Accumulation behind an Obstacle. <i>Advances in Microbiology</i> , 2018, 08, 451-464.	0.3	21
14	Quantification of tracer plume transport parameters in 2D saturated porous media by cross-borehole ERT imaging. <i>Journal of Applied Geophysics</i> , 2017, 139, 291-305.	0.9	5
15	Sedimentation and fluttering of a cylinder in a confined liquid. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	2
16	Bacterial suspensions under flow. <i>European Physical Journal: Special Topics</i> , 2016, 225, 2389-2406.	1.2	26
17	Large scale flow visualization and anemometry applied to lab-on-a-chip models of porous media. <i>Lab on A Chip</i> , 2016, 16, 2851-2859.	3.1	3
18	Time dependence and local structure of tracer dispersion in oscillating liquid Hele-Shaw flows. <i>Physics of Fluids</i> , 2015, 27, 103602.	1.6	3

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19	Deformation of a flexible fiber in a viscous flow past an obstacle. <i>Physics of Fluids</i> , 2015, 27, 013102.	1.6	6
20	Effect of the porosity on the fracture surface roughness of sintered materials: From anisotropic to isotropic self-affine scaling. <i>Physical Review E</i> , 2015, 91, 012406.	0.8	10
21	Turning Bacteria Suspensions into Superfluids. <i>Physical Review Letters</i> , 2015, 115, 028301.	2.9	249
22	Effective rheology of Bingham fluids in a rough channel. <i>Frontiers in Physics</i> , 2014, 2, .	1.0	20
23	Influence of confinement on the oscillations of a free cylinder in a viscous flow. <i>Physics of Fluids</i> , 2014, 26, .	1.6	2
24	Autocatalytic Reaction Fronts Inside a Porous Medium of Glass Spheres. <i>Physical Review Letters</i> , 2013, 110, 148301.	2.9	32
25	Geometry of optimal path hierarchies. <i>Europhysics Letters</i> , 2013, 103, 30003.	0.7	14
26	Oscillations and translation of a free cylinder in a viscous confined flow. <i>Physics of Fluids</i> , 2013, 25, 014102.	1.6	4
27	Stokes flow paths separation and recirculation cells in X-junctions of varying angle. <i>Physics of Fluids</i> , 2012, 24, .	1.6	8
28	Relation between first arrival time and permeability in self-affine fractures with areas in contact. <i>Europhysics Letters</i> , 2012, 97, 68009.	0.7	4
29	New oscillatory instability of a confined cylinder in a flow below the vortex shedding threshold. <i>Journal of Fluid Mechanics</i> , 2012, 690, 345-365.	1.4	11
30	CHEMO-hydrodynamic coupling between forced advection in porous media and self-sustained chemical waves. <i>Chaos</i> , 2012, 22, 037108.	1.0	9
31	Assessment of the two relaxation time Lattice-Boltzmann scheme to simulate Stokes flow in porous media. <i>Water Resources Research</i> , 2012, 48, .	1.7	87
32	Experimental Study of ERT Monitoring Ability to Measure Solute Dispersion. <i>Ground Water</i> , 2012, 50, 285-295.	0.7	3
33	Accurate measurement of curvilinear shapes by Virtual Image Correlation. <i>EPJ Applied Physics</i> , 2011, 56, 10701.	0.3	18
34	Characterization of fracture aperture field heterogeneity by electrical resistance measurement. <i>Journal of Contaminant Hydrology</i> , 2011, 123, 65-74.	1.6	1
35	Viscometer using drag force measurements. <i>Review of Scientific Instruments</i> , 2011, 82, 023909.	0.6	13
36	Single Fiber Transport in a Fracture Slit: Influence of the Wall Roughness and of the Fiber Flexibility. <i>Transport in Porous Media</i> , 2010, 84, 389-408.	1.2	12

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37	Shape determination of unidimensional objects: the virtual image correlation method. EPJ Web of Conferences, 2010, 6, 10004.	0.1	0
38	Permeability estimates of self-affine fracture faults based on generalization of the bottleneck concept. Water Resources Research, 2010, 46, .	1.7	23
39	Permeability of self-affine aperture fields. Physical Review E, 2010, 82, 046108.	0.8	25
40	Miscible transfer of solute in different model fractures: From random to multiscale wall roughness. Comptes Rendus - Geoscience, 2010, 342, 644-652.	0.4	8
41	Influence of wall roughness on the geometrical, mechanical and transport properties of single fractures. Journal Physics D: Applied Physics, 2009, 42, 214015.	1.3	35
42	Influence of flow confinement on the drag force on a static cylinder. Physics of Fluids, 2009, 21, .	1.6	24
43	Experimental evidence of the anisotropy of tracer dispersion in rough fractures with sheared walls. Water Resources Research, 2009, 45, .	1.7	4
44	Flexible fiber transport by a fluid flow in fractures with smooth and rough walls. Journal of Physics: Conference Series, 2009, 166, 012001.	0.3	2
45	Influence of rheology on buoyancy driven instabilities of miscible displacements in 2D micromodels. Journal of Physics: Conference Series, 2009, 166, 012005.	0.3	0
46	Enhancement of velocity contrasts by shear-thinning solutions flowing in a rough fracture. Journal of Non-Newtonian Fluid Mechanics, 2008, 153, 53-61.	1.0	32
47	Geometrical and Taylor dispersion in a fracture with random obstacles: An experimental study with fluids of different rheologies. Water Resources Research, 2008, 44, .	1.7	19
48	Dispersion enhancement and damping by buoyancy driven flows in two-dimensional networks of capillaries. Physics of Fluids, 2008, 20, 034107.	1.6	6
49	Pore scale mixing and macroscopic solute dispersion regimes in polymer flows inside two-dimensional model networks. Physics of Fluids, 2007, 19, 033103.	1.6	10
50	Failure mechanisms and surface roughness statistics of fractured Fontainebleau sandstone. Physical Review E, 2007, 76, 036108.	0.8	57
51	Miscible displacement fronts of shear thinning fluids inside rough fractures. Water Resources Research, 2007, 43, .	1.7	27
52	Influence of the disorder on solute dispersion in a flow channel. EPJ Applied Physics, 2007, 39, 267-274.	0.3	6
53	Anisotropic self-affine properties of experimental fracture surfaces. International Journal of Fracture, 2006, 140, 27-37.	1.1	57
54	Flow channeling in a single fracture induced by shear displacement. Geothermics, 2006, 35, 576-588.	1.5	87

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55	Low Self-Affine Exponents of Fractured Glass Ceramics Surfaces. Physical Review Letters, 2006, 97, 125501.	2.9	40
56	Numerical study of the temperature and porosity effects on the fracture propagation in a 2D network of elastic bonds. European Physical Journal B, 2005, 44, 365-372.	0.6	2
57	Permeability anisotropy induced by the shear displacement of rough fracture walls. Water Resources Research, 2005, 41, .	1.7	102
58	Self-Affine Fronts in Self-Affine Fractures: Large and Small-Scale Structure. Physical Review Letters, 2004, 92, 014501.	2.9	28
59	Drainage in a Rough Gouge-Filled Fracture. Transport in Porous Media, 2003, 50, 267-305.	1.2	16
60	Experimental study of miscible displacement fronts in rough self-affine fractures. Physical Review E, 2001, 63, 066306.	0.8	35
61	Geometry and dynamics of invasion percolation with correlated buoyancy. Physical Review E, 2000, 61, 3985-3995.	0.8	17
62	Competition between correlated buoyancy and uncorrelated capillary effects during drainage. Physical Review E, 1999, 60, 7224-7234.	0.8	40
63	Motion of a ball dropped onto a one-dimensional self-affine surface. Journal of Physics A, 1997, 30, 4915-4924.	1.6	1
64	Identification of the Shape of Curvilinear Beams and Fibers. Applied Mechanics and Materials, 0, 24-25, 359-364.	0.2	10