

Daniel Lester

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

1,874
citations

304602

22
h-index

289141

40
g-index

80
all docs

80
docs citations

80
times ranked

1407
citing authors

#	ARTICLE	IF	CITATIONS
1	A Primer on the Dynamical Systems Approach to Transport in Porous Media. <i>Transport in Porous Media</i> , 2023, 146, 55-84.	1.2	3
2	A spatiotemporally resolved infection risk model for airborne transmission of COVID-19 variants in indoor spaces. <i>Science of the Total Environment</i> , 2022, 812, 152592.	3.9	29
3	Characterising sedimentation velocity of primary waste water solids and effluents. <i>Water Research</i> , 2022, 219, 118555.	5.3	5
4	Normal stress differences in the consolidation of strong colloidal gels. <i>Rheologica Acta</i> , 2021, 60, 59-76.	1.1	4
5	A novel CFD-DEM upscaling method for prediction of scour under live-bed conditions. <i>Ocean Engineering</i> , 2021, 220, 108442.	1.9	10
6	Consolidation of strong colloidal gels under arbitrary compressive loadings. <i>Soft Matter</i> , 2021, 17, 2242-2255.	1.2	2
7	Scalar Signatures of Chaotic Mixing in Porous Media. <i>Physical Review Letters</i> , 2021, 126, 034505.	2.9	16
8	Effect of inhalation on oropharynx collapse via flow visualisation. <i>Journal of Biomechanics</i> , 2021, 118, 110200.	0.9	3
9	The Lagrangian kinematics of three-dimensional Darcy flow. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	1.4	5
10	Strain softening of concentrated cohesive particulate suspensions prior to yield. <i>Journal of Rheology</i> , 2021, 65, 355-370.	1.3	4
11	Superposed shear and compression of strong colloidal gels. <i>Journal of Rheology</i> , 2021, 65, 837-853.	1.3	3
12	Constitutive modelling and pipeline flow of thixotropic viscoplastic wastewater sludge. <i>Water Research</i> , 2020, 184, 116126.	5.3	9
13	Lagrangian Complexity Persists with Multimodal Flow Forcing in Compressible Porous Systems. <i>Transport in Porous Media</i> , 2020, 135, 555-586.	1.2	2
14	Stretching and folding sustain microscale chemical gradients in porous media. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 13359-13365.	3.3	32
15	Global organization of three-dimensional, volume-preserving flows: Constraints, degenerate points, and Lagrangian structure. <i>Chaos</i> , 2020, 30, 033124.	1.0	2
16	Impact of sleeping position, gravitational force & effective tissue stiffness on obstructive sleep apnoea. <i>Journal of Biomechanics</i> , 2020, 104, 109715.	0.9	12
17	When Do Complex Transport Dynamics Arise in Natural Groundwater Systems?. <i>Water Resources Research</i> , 2020, 56, e2019WR025982.	1.7	4
18	Hydrodynamic Dispersion and Lamb Surfaces in Darcy Flow. <i>Transport in Porous Media</i> , 2019, 130, 903-922.	1.2	9

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19	Chaotic mixing in crystalline granular media. <i>Journal of Fluid Mechanics</i> , 2019, 871, 562-594.	1.4	23
20	Can diatom girdle band pores act as a hydrodynamic viral defense mechanism?. <i>Journal of Biological Physics</i> , 2019, 45, 213-234.	0.7	7
21	Field Trials of Chaotic Advection to Enhance Reagent Delivery. <i>Ground Water Monitoring and Remediation</i> , 2019, 39, 23-39.	0.6	22
22	Temporal Fluctuations and Poroelasticity Can Generate Chaotic Advection in Natural Groundwater Systems. <i>Water Resources Research</i> , 2019, 55, 3347-3374.	1.7	16
23	Topological mixing of yield stress materials. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	5
24	Sedimentation and consolidation of different density aggregates formed by polymer-bridging flocculation. <i>Chemical Engineering Science</i> , 2018, 184, 111-125.	1.9	43
25	Space-Group Symmetries Generate Chaotic Fluid Advection in Crystalline Granular Media. <i>Physical Review Letters</i> , 2018, 120, 024501.	2.9	21
26	An efficient boundary element formulation for doubly-periodic two-dimensional Stokes flow with pressure boundary conditions. <i>Journal of Computational Physics</i> , 2018, 365, 18-36.	1.9	4
27	Fluid deformation in random steady three-dimensional flow. <i>Journal of Fluid Mechanics</i> , 2018, 855, 770-803.	1.4	8
28	Detection of unstable periodic orbits in mineralising geological systems. <i>Chaos</i> , 2018, 28, 085711.	1.0	16
29	Evolution of solute blobs in heterogeneous porous media. <i>Journal of Fluid Mechanics</i> , 2018, 853, 621-646.	1.4	23
30	Simultaneous optimisation of residence time, heat and mass transfer in laminar duct flows. <i>Chemical Engineering Science</i> , 2018, 191, 511-524.	1.9	3
31	The frictional pebble game: An algorithm for rigidity percolation in saturated frictional assemblies. <i>Journal of Computational Physics</i> , 2018, 369, 225-236.	1.9	7
32	Impact of discontinuous deformation upon the rate of chaotic mixing. <i>Physical Review E</i> , 2017, 95, 022213.	0.8	7
33	Correction of wall adhesion effects in the centrifugal compression of strong colloidal gels. <i>AICHE Journal</i> , 2017, 63, 1520-1528.	1.8	2
34	Localized shear generates three-dimensional transport. <i>Chaos</i> , 2017, 27, 043102.	1.0	6
35	Hydrodynamic drift ratchet scalability. <i>AICHE Journal</i> , 2017, 63, 2358-2366.	1.8	4
36	Rapid detection of Hendra virus antibodies: an integrated device with nanoparticle assay and chaotic micromixing. <i>Lab on A Chip</i> , 2017, 17, 169-177.	3.1	35

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37	Bifurcations and degenerate periodic points in a three dimensional chaotic fluid flow. <i>Chaos</i> , 2016, 26, 053106.	1.0	9
38	Chaotic mixing in three-dimensional porous media. <i>Journal of Fluid Mechanics</i> , 2016, 803, 144-174.	1.4	45
39	Mixing of discontinuously deforming media. <i>Chaos</i> , 2016, 26, 023113.	1.0	16
40	Coupled continuous-time random walks for fluid stretching in two-dimensional heterogeneous media. <i>Physical Review E</i> , 2016, 94, 061102.	0.8	22
41	Chaotic advection at the pore scale: Mechanisms, upscaling and implications for macroscopic transport. <i>Advances in Water Resources</i> , 2016, 97, 175-192.	1.7	16
42	Creating analytically divergence-free velocity fields from grid-based data. <i>Journal of Computational Physics</i> , 2016, 323, 75-94.	1.9	11
43	Continuous time random walks for the evolution of Lagrangian velocities. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	84
44	Scaling forms of particle densities for Lévy walks and strong anomalous diffusion. <i>Physical Review E</i> , 2015, 92, 032128.	0.8	15
45	Dynamic and rate-dependent yielding in model cohesive suspensions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 221, 40-54.	1.0	14
46	Correction of wall adhesion effects in batch settling of strong colloidal gels. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 221, 18-27.	1.0	7
47	Groundwater cooling of a supercomputer in Perth, Western Australia: hydrogeological simulations and thermal sustainability. <i>Hydrogeology Journal</i> , 2015, 23, 1831-1849.	0.9	12
48	Anomalous transport and chaotic advection in homogeneous porous media. <i>Physical Review E</i> , 2014, 90, 063012.	0.8	26
49	Wall adhesion and constitutive modeling of strong colloidal gels. <i>Journal of Rheology</i> , 2014, 58, 1247-1276.	1.3	16
50	Control mechanisms for the global structure of scalar dispersion in chaotic flows. <i>Physical Review E</i> , 2014, 90, 022908.	0.8	8
51	Is Chaotic Advection Inherent to Porous Media Flow?. <i>Physical Review Letters</i> , 2013, 111, 174101.	2.9	66
52	Comment on "Plume spreading in groundwater by stretching and folding" by D. C. Mays and R. M. Neupauer. <i>Water Resources Research</i> , 2013, 49, 1189-1191.	1.7	1
53	The mechanics of hydrothermal systems: I. Ore systems as chemical reactors. <i>Ore Geology Reviews</i> , 2012, 49, 1-44.	1.1	54
54	The mechanics of hydrothermal systems: II. Fluid mixing and chemical reactions. <i>Ore Geology Reviews</i> , 2012, 49, 45-71.	1.1	28

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55	Beyond Passive. <i>Advances in Applied Mechanics</i> , 2012, , 109-188.	1.4	27
56	Toward enhanced subsurface intervention methods using chaotic advection. <i>Journal of Contaminant Hydrology</i> , 2012, 127, 15-29.	1.6	54
57	Stochastic relationships for periodic responses in randomly heterogeneous aquifers. <i>Water Resources Research</i> , 2011, 47, .	1.7	7
58	An effective modeling tool for studying erosion. <i>Wear</i> , 2011, 270, 598-605.	1.5	19
59	A partially open porous media flow with chaotic advection: towards a model of coupled fields. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 217-230.	1.6	25
60	Macroscopic dynamics of flocculated colloidal suspensions. <i>Chemical Engineering Science</i> , 2010, 65, 6362-6378.	1.9	18
61	Quantification of erosion distributions in complex geometries. <i>Wear</i> , 2010, 268, 1066-1071.	1.5	22
62	High precision suspension erosion modeling. <i>Wear</i> , 2010, 269, 449-457.	1.5	23
63	An experimental and theoretical study of the mixing characteristics of a periodically reoriented irrotational flow. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 2147-2162.	1.6	21
64	Scalar dispersion in a periodically reoriented potential flow: Acceleration via Lagrangian chaos. <i>Physical Review E</i> , 2010, 81, 046319.	0.8	27
65	On oscillating flows in randomly heterogeneous porous media. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 197-216.	1.6	9
66	Lagrangian topology of a periodically reoriented potential flow: Symmetry, optimization, and mixing. <i>Physical Review E</i> , 2009, 80, 036208.	0.8	33
67	Low Reynolds number scalar transport enhancement in viscous and non-Newtonian fluids. <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 655-664.	2.5	42
68	Mixing and heat transfer of highly viscous food products with a continuous chaotic duct flow. <i>Journal of Food Engineering</i> , 2009, 95, 21-29.	2.7	34
69	Laboratory Modeling of Equipment Erosion by Sand Particles. , 2009, , .		4
70	Global parametric solutions of scalar transport. <i>Journal of Computational Physics</i> , 2008, 227, 3032-3057.	1.9	31
71	Lagrangian topology of reoriented potential flows. <i>Proceedings of SPIE</i> , 2008, , .	0.8	2
72	Transport in a partially open porous media flow. <i>Proceedings of SPIE</i> , 2007, , .	0.8	7

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73	Complete parametric scalar dispersion. Proceedings of SPIE, 2007, , .	0.8	2
74	PROSPECTS FOR EFFICIENT ENHANCED HEAT TRANSFER IN AN OPEN CHAOTIC FLOW. , 2006, , .		2
75	Estimation of the hindered settling functionR(?) from batch-settling tests. AIChE Journal, 2005, 51, 1158-1168.	1.8	84
76	Drop formation dynamics of constant low-viscosity, elastic fluids. Journal of Non-Newtonian Fluid Mechanics, 2002, 106, 29-59.	1.0	121
77	Predictions of the change in extinction coefficient for prolate particles under shear. Journal of Chemical Physics, 2001, 115, 5679-5689.	1.2	1
78	[31] Cloning of novel cytochrome P450 gene sequences via polymerase chain reaction amplification. Methods in Enzymology, 1996, 272, 275-283.	0.4	18
79	Cloning and expression of cytochrome P450 genes controlling flower colour. Nature, 1993, 366, 276-279.	13.7	367
80	The Handbook of Groundwater Engineering. , 0, , .		18