Jean-Yves Parlange

List of Publications by Year
in descending order

82 papers	2,864 citations	159585 30 h-index	175258 52 g-index
82 all docs	82 docs citations	82 times ranked	2010 citing authors

#	Article	IF	Citations
1	Water Uptake, Diameter Change, and Nonlinear Diffusion in Tree Stems. Plant Physiology, 1975, 55, 247-250.	4.8	195
2	Preferential Flow in Waterâ€Repellent Sands. Soil Science Society of America Journal, 1998, 62, 1185-1190.	2.2	180
3	Stomatal Dimensions and Resistance to Diffusion. Plant Physiology, 1970, 46, 337-342.	4.8	170
4	THEORY OF WATER-MOVEMENT IN SOILS: I. ONE-DIMENSIONAL ABSORPTION. Soil Science, 1971, 111, 134-137.	0.9	141
5	On Solving the Flow Equation in Unsaturated Soils by Optimization: Horizontal Infiltration. Soil Science Society of America Journal, 1975, 39, 415-418.	2.2	135
6	Parameter constraints on closed-form soilwater relationships. Journal of Hydrology, 1992, 134, 117-142.	5.4	127
7	THEORY OF WATER-MOVEMENT IN SOILS: 2. ONE-DIMENSIONAL INFILTRATION. Soil Science, 1971, 111, 170-174.	0.9	116
8	Influence of image resolution and thresholding on the apparent mass fractal characteristics of preferential flow patterns in field soils. Water Resources Research, 1998, 34, 2783-2796.	4.2	102
9	Colloid Transport and Retention in Unsaturated Porous Media: Effect of Colloid Input Concentration. Environmental Science & Technology, 2010, 44, 4965-4972.	10.0	101
10	Boundary Layer Resistance and Temperature Distribution on Still and Flapping Leaves. Plant Physiology, 1971, 48, 437-442.	4.8	91
11	Capillary hysteresis and the relationship between drying and wetting curves. Water Resources Research, 1976, 12, 224-228.	4.2	85
12	THEORY OF WATER MOVEMENT IN SOILS: 8.. Soil Science, 1972, 114, 1-4.	0.9	76
13	Analysis of Operation and Calibration of a Ventilated Diffusion Porometer. Plant Physiology, 1970, 46, 175-177.	4.8	75
14	The Local Geometry of Gas Injection into Saturated Homogeneous Porous Media. Transport in Porous Media, 2007, 68, 107-127.	2.6	69
15	A poreâ€hindered diffusion and reaction model can help explain the importance of pore size distribution in enzymatic hydrolysis of biomass. Biotechnology and Bioengineering, 2013, 110, 127-136.	3.3	57
16	Transport of Cryptosporidium parvum Oocysts through Saturated Columns. Journal of Environmental Quality, 1999, 28, 809-815.	2.0	56
17	STOMATAL MECHANICS. American Journal of Botany, 1973, 60, 163-171.	1.7	53
18	Surfactant-Mediated Control of Colloid Pattern Assembly and Attachment Strength in Evaporating Droplets. Langmuir, 2013, 29, 1831-1840.	3.5	50

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19	Ventilation Required to Entrain Small Particles from Leaves. Plant Physiology, 1975, 56, 97-99.	4.8	49
20	Turbulent Dispersion of Disparlure in the Forest and Male Gypsy Moth 1 Response. Environmental Entomology, 1976, 5, 1026-1032.	1.4	43
21	Note on the motion of long bubbles in closed tubes-influence of surface tension. Acta Mechanica, 1976, 24, 313-317.	2.1	42
22	Surface fractal characteristics of preferential flow patterns in field soils: evaluation and effect of image processing. Geoderma, 1999, 88, 109-136.	5.1	42
23	Energy Transport in a High-Solids Aerobic Degradation Process: Mathematical Modeling and Analysis. Biotechnology Progress, 1997, 13, 238-248.	2.6	40
24	Reduced raindrop-impact driven soil erosion by infiltration. Journal of Hydrology, 2007, 342, 331-335.	5.4	40
25	A Saturation Excess Erosion Model. Transactions of the ASABE, 2013, 56, 681-695.	1.1	39
26	Boundary Layer Resistance and Temperature Distribution on Still and Flapping Leaves. Plant Physiology, 1972, 50, 60-63.	4.8	38
27	Green and Ampt infiltration into soils of variable pore size with depth. Water Resources Research, 1999, 35, 1685-1688.	4.2	38
28	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1972, 113, 96-101.	0.9	37
29	A theory of water-bells. Journal of Fluid Mechanics, 1967, 29, 361-372.	3.4	34
30	Spherical cap bubbles with laminar wakes. Journal of Fluid Mechanics, 1969, 37, 257-263.	3.4	34
31	Water Uptake and Water Diffusivity of Seeds. Plant Physiology, 1976, 57, 153-156.	4.8	34
32	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1972, 113, 308-312.	0.9	32
33	An engineering approach to fingered vadose pollutant transport. Geoderma, 1996, 70, 197-206.	5.1	28
34	Overland flow to and through a segment of uniform resistance. Journal of Hydrology, 2002, 255, 134-150.	5.4	27
35	A note on the soil-water conductivity of a fractal soil. Transport in Porous Media, 1996, 23, 31.	2.6	21
36	Establishing irrigation potential of a hillside aquifer in the African highlands. Hydrological Processes, 2020, 34, 1741-1753.	2.6	21

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37	Free energy of formation of droplets with curvature dependent surface tension. Journal of Crystal Growth, 1970, 6, 311-313.	1.5	19
38	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1975, 119, 158-161.	0.9	18
39	Accounting for surface roughness in a physically-based urban wash-off model. Journal of Hydrology, 2009, 367, 79-85.	5.4	18
40	Investigation of the porous structure of cellulosic substrates through confocal laser scanning microscopy. Biotechnology and Bioengineering, 2013, 110, 2836-2845.	3.3	16
41	Spatio-temporal patterns of groundwater depths and soil nutrients in a small watershed in the Ethiopian highlands: Topographic and land-use controls. Journal of Hydrology, 2017, 555, 420-434.	5.4	16
42	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1972, 113, 156-161.	0.9	15
43	Vertical Infiltration into a Layered Soil. Soil Science Society of America Journal, 1973, 37, 673-676.	2.2	15
44	Horizontal Infiltration of Water in Soils: A Theoretical Interpretation of Recent Experiments. Soil Science Society of America Journal, 1973, 37, 329-330.	2.2	15
45	Water movement in soils. Geophysical Surveys, 1974, 1, 357-387.	0.2	15
46	Air and water flow, II. Gravitational flow with an arbitrary flux boundary condition. Journal of Hydrology, 1988, 99, 225-234.	5.4	15
47	Explaining and modeling the concentration and loading of Escherichia coli in a streamâ€"A case study. Science of the Total Environment, 2018, 635, 1426-1435.	8.0	15
48	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1973, 116, 1-7.	0.9	14
49	MOVEMENT OF SALT AND WATER IN RELATIVELY DRY SOILS. Soil Science, 1973, 116, 249-255.	0.9	13
50	A mathematical model of hillslope and watershed discharge. Water Resources Research, 1992, 28, 2111-2122.	4.2	12
51	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1972, 114, 79-81.	0.9	11
52	THEORY OF WATER MOVEMENT IN SOILS. Soil Science, 1972, 113, 379.	0.9	10
53	Twoâ€Dimensional Similarity Solution: Theory and Application to the Determination of Soilâ€Water Diffusivity. Soil Science Society of America Journal, 1975, 39, 387-390.	2.2	9
54	Experimental testing of a stochastic sediment transport model. Journal of Hydrology, 2008, 348, 425-430.	5.4	9

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55	Note on the infiltration advance front from border irrigation. Water Resources Research, 1973, 9, 1075-1078.	4.2	8
56	Air and water flow, I. Horizontal flow with an arbitrary flux boundary condition. Journal of Hydrology, 1988, 99, 215-223.	5.4	8
57	Gravity Correction Due to a Variation of Pressure Head Within a Cavity. Soil Science Society of America Journal, 1974, 38, 15-17.	2.2	7
58	Effects of sodium chloride on constitutive relations in variably saturated porous media. Water Resources Research, 2006, 42, .	4.2	7
59	A Note on A Three-Parameter Soil-Water Diffusivity Function-Application to the Horizontal Infiltration of Water. Soil Science Society of America Journal, 1973, 37, 318-319.	2.2	6
60	Linear scaling of precipitation-driven soil erosion in laboratory flumes. Catena, 2017, 152, 285-291.	5.0	6
61	Thermal boundary-layer similarity at limiting Prandtl numbers. AIAA Journal, 1970, 8, 574-576.	2.6	5
62	Thermodynamic Correction for Salts in Variably Saturated Porous Media. Transport in Porous Media, 2006, 63, 381-398.	2.6	5
63	Application of a new analytical method to a model of non-Darcian consolidation in clay soils. Journal of Hydrology, 1973, 18, 119-124.	5.4	4
64	A NOTE ON THE MOISTURE DIFFUSIVITY OF SATURATED SWELLING SYSTEMS FROM DESORPTION EXPERIMENTS. Soil Science, 1975, 120, 156-158.	0.9	4
65	Response of an unsaturated soil to forest transpiration. Water Resources Research, 1975, 11, 319-323.	4.2	4
66	Comment on â€˜More on an approximate solution for nonlinear diffusionâ€™ by Wilfried Brutsaert. Water Resources Research, 1975, 11, 1040-1041.	4.2	4
67	Convergence and Validity of Time Expansion Solutions: A Comparison to Exact and Approximate Solutions1. Soil Science Society of America Journal, 1975, 39, 3.	2.2	4
68	Comment on â€˜Moisture variation at the soil surface and the advance of the wetting front during infiltration at constant fluxâ€™ by Carol Braester. Water Resources Research, 1976, 12, 313-313.	4.2	4
69	Stomatal Penetration by Liquids. Plant Physiology, 1973, 51, 596-597.	4.8	3
70	Revisiting sizeâ€exclusion chromatography for measuring structural changes in raw and pretreated mixed hardwoods and switchgrass. Biotechnology and Bioengineering, 2015, 112, 549-559.	3.3	3
71	Correction of the Buckinghamâ€“Darcy Law for flow of high strength salts in variably saturated porous media. Advances in Water Resources, 2007, 30, 469-482.	3.8	2
72	A note on Chow's description of the weak hydraulic jump. Journal of Hydraulic Research/De Recherches Hydrauliques, 2008, 46, 703-706.	1.7	2

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73	Cellulases Significantly Alter the Nano-Scale Reaction Space for Pretreated Lignocellulosic Biomass. Industrial Biotechnology, 2014, 10, 395-403.	0.8	2
74	Self organizing hydrological processes in a runoff source area. Catena, 2022, 211, 105955.	5.0	2
75	Nomographic Interpretation of Water Absorption Data in Terms of a Twoâ€Parametric Diffusivityâ€Water Content Function. Soil Science Society of America Journal, 1975, 39, 1013-1014.	2.2	1
76	Determination of unsteady supersonic flows around thin pointed wingsby asymptotic expansions.. Journal of Aircraft, 1968, 5, 455-460.	2.4	0
77	Determination of the wake behind a bluff body of revolution at high Reynolds numbers. Journal of Aircraft, 1969, 6, 569-571.	2.4	0
78	Letters to the editor: Editor, C.J.Ch.E:. Canadian Journal of Chemical Engineering, 1972, 50, 439-440.	1.7	0
79	Comment on â€˜Absorption of water by a soil from a circular cylindrical sourceâ€™ by Rameshwar Singh. Water Resources Research, 1973, 9, 1098-1100.	4.2	0
80	Surface fractal characteristics of preferential flow patterns in field soils: evaluation and effect of image processing. Developments in Soil Science, 2000, 27, 19-46.	0.5	0
81	Predicting the Fate of Preferentially Moving Herbicides. Vadose Zone Journal, 2019, 18, 1-11.	2.2	0
82	A Similarity During Early Stages of Rain Infiltration. Soil Science Society of America Journal, 1975, 39, 163.	2.2	0