

# Yves Le Bissonnais

## List of Publications by Year in descending order

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Version: 2024-02-01

97  
papers

7,700  
citations

38720

50  
h-index

51562

86  
g-index

100  
all docs

100  
docs citations

100  
times ranked

6406  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling response of soil erosion and runoff to changes in precipitation and cover. <i>Catena</i> , 2005, 61, 131-154.	2.2	581
2	Rates and spatial variations of soil erosion in Europe: A study based on erosion plot data. <i>Geomorphology</i> , 2010, 122, 167-177.	1.1	561
3	Aggregate stability and microbial community dynamics under drying-wetting cycles in a silt loam soil. <i>Soil Biology and Biochemistry</i> , 2006, 38, 2053-2062.	4.2	260
4	Effects of vegetation type on soil resistance to erosion: Relationship between aggregate stability and shear strength. <i>Catena</i> , 2011, 87, 60-69.	2.2	243
5	Soil Aggregate Stability Improvement with Urban Composts of Different Maturities. <i>Soil Science Society of America Journal</i> , 2007, 71, 413-423.	1.2	204
6	The PESERA coarse scale erosion model for Europe. I. Model rationale and implementation. <i>European Journal of Soil Science</i> , 2008, 59, 1293-1306.	1.8	188
7	Scale effect on runoff from experimental plots to catchments in agricultural areas in Normandy. <i>Journal of Hydrology</i> , 2004, 299, 4-14.	2.3	184
8	Incorporating soil surface crusting processes in an expert-based runoff model: Sealing and Transfer by Runoff and Erosion related to Agricultural Management. <i>Catena</i> , 2002, 46, 189-205.	2.2	166
9	Variability of soil surface characteristics influencing runoff and interrill erosion. <i>Catena</i> , 2005, 62, 111-124.	2.2	164
10	Regulation of soil structure by geophagous earthworm activities in humid savannas of Côte d'Ivoire. <i>Soil Biology and Biochemistry</i> , 1997, 29, 431-439.	4.2	163
11	Mapping erosion risk for cultivated soil in France. <i>Catena</i> , 2002, 46, 207-220.	2.2	162
12	Aggregate breakdown dynamics under rainfall compared with aggregate stability measurements. <i>European Journal of Soil Science</i> , 2005, 56, 225-238.	1.8	141
13	Crusting, Runoff, and Erosion Response to Soil Water Content and Successive Rainfalls. <i>Soil Science Society of America Journal</i> , 1992, 56, 1898-1903.	1.2	140
14	Effect of land use and management on the early stages of soil water erosion in French Mediterranean vineyards. <i>Soil and Tillage Research</i> , 2009, 106, 124-136.	2.6	140
15	Land use and climate change effects on soil erosion in a semi-arid mountainous watershed (High Atlas.) <i>Tj ETQq1 10,784314 rgBT /O</i>	1.2	130
16	Splash distance and size distributions for various soils. <i>Geoderma</i> , 2005, 124, 279-292.	2.3	127
17	Interactions between soil properties and moisture content in crust formation, runoff and interrill erosion from tilled loess soils. <i>Catena</i> , 1995, 25, 33-46.	2.2	126
18	Effects of the inoculation of cyanobacteria on the microstructure and the structural stability of a tropical soil. <i>Plant and Soil</i> , 2007, 290, 209-219.	1.8	125

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19	Laboratory experimental study of soil crusting: Relation between aggregate breakdown mechanisms and crust structure. <i>Catena</i> , 1989, 16, 377-392.	2.2	122
20	Runoff Features for Interrill Erosion at Different Rainfall Intensities, Slope Lengths, and Gradients in an Agricultural Loessial Hillslope. <i>Soil Science Society of America Journal</i> , 2003, 67, 844.	1.2	122
21	Erodibility of Mediterranean vineyard soils: relevant aggregate stability methods and significant soil variables. <i>European Journal of Soil Science</i> , 2007, 58, 188-195.	1.8	118
22	Role of a cyanobacterial cover on structural stability of sandy soils in the Sahelian part of western Niger. <i>Geoderma</i> , 2001, 101, 15-30.	2.3	116
23	Soil detachment and transport on field- and laboratory-scale interrill areas: erosion processes and the size-selectivity of eroded sediment. <i>Earth Surface Processes and Landforms</i> , 2006, 31, 929-939.	1.2	115
24	Aggregate stability and assessment of soil crustability and erodibility: I. Theory and methodology. <i>European Journal of Soil Science</i> , 2016, 67, 11-21.	1.8	111
25	Crusting, runoff and sheet erosion on silty loamy soils at various scales and upscaling from m <sup>2</sup> to small catchments. <i>Soil and Tillage Research</i> , 1998, 46, 69-80.	2.6	110
26	Vegetated filter effects on sedimentological connectivity of agricultural catchments in erosion modelling: a review. <i>Earth Surface Processes and Landforms</i> , 2011, 36, 3-19.	1.2	103
27	Rill erosion on cultivated hillslopes during two extreme rainfall events in Normandy, France. <i>Soil and Tillage Research</i> , 2002, 67, 99-108.	2.6	98
28	Soil aggregate stability in Mediterranean and tropical agro-ecosystems: effect of plant roots and soil characteristics. <i>Plant and Soil</i> , 2018, 424, 303-317.	1.8	94
29	Seal Formation, Runoff, and Interrill Erosion from Seventeen California Soils. <i>Soil Science Society of America Journal</i> , 1993, 57, 224-229.	1.2	93
30	Importance of surface sealing in the erosion of some soils from a mediterranean climate. <i>Geomorphology</i> , 1998, 24, 79-85.	1.1	86
31	Grass strip effects on runoff and soil loss. <i>Agronomy for Sustainable Development</i> , 2004, 24, 129-136.	0.8	81
32	Splash Projection Distance for Aggregated Soils. <i>Soil Science Society of America Journal</i> , 2005, 69, 30.	1.2	80
33	Erosion and sediment budget across scale: A case study in a catchment of the European loess belt. <i>Journal of Hydrology</i> , 2012, 420-421, 255-263.	2.3	79
34	Soil tillage and scale effects on erosion from fields to catchment in a Mediterranean vineyard area. <i>Agriculture, Ecosystems and Environment</i> , 2009, 134, 201-210.	2.5	76
35	An automated salt-tracing gauge for flow-velocity measurement. <i>Earth Surface Processes and Landforms</i> , 2005, 30, 833-844.	1.2	69
36	Relative Contribution of Rill/Interrill and Gully/Channel Erosion to Small Reservoir Siltation in Mediterranean Environments. <i>Land Degradation and Development</i> , 2016, 27, 785-797.	1.8	68

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37	A method for modeling the effects of climate and land use changes on erosion and sustainability of soil in a Mediterranean watershed (Languedoc, France). <i>Journal of Environmental Management</i> , 2015, 150, 57-68.	3.8	66
38	Modelling interrill erosion in small cultivated catchments. <i>Hydrological Processes</i> , 2002, 16, 3215-3226.	1.1	65
39	Runoff Features for Interrill Erosion at Different Rainfall Intensities, Slope Lengths, and Gradients in an Agricultural Loessial Hillslope. <i>Soil Science Society of America Journal</i> , 2003, 67, 844-851.	1.2	65
40	Size fractions resulting from an aggregate stability test, interrill detachment and transport. <i>Earth Surface Processes and Landforms</i> , 2004, 29, 1117-1129.	1.2	65
41	The effect of ponding depth on infiltration in a crusted surface depression. <i>Catena</i> , 1998, 32, 87-100.	2.2	62
42	Grassland and crop trends: role of the European Union Common Agricultural Policy and consequences for runoff and soil erosion. <i>Environmental Science and Policy</i> , 2003, 6, 7-16.	2.4	62
43	The implications of spatial variability in surface seal hydraulic resistance for infiltration in a mound and depression microtopography. <i>Catena</i> , 1998, 32, 101-114.	2.2	61
44	Soil erosion in sloping vineyards assessed by using botanical indicators and sediment collectors in the Ruwer-Mosel valley. <i>Agriculture, Ecosystems and Environment</i> , 2016, 233, 158-170.	2.5	61
45	Differences in aggregate stability due to various sewage sludge treatments on a Mediterranean calcareous soil. <i>Agriculture, Ecosystems and Environment</i> , 2008, 125, 48-56.	2.5	59
46	A regional-scale study of multi-decennial erosion of vineyard fields using vine-stock unearthing "burying" measurements. <i>Catena</i> , 2010, 82, 159-168.	2.2	59
47	The development of land quality indicators for soil degradation by water erosion. <i>Agriculture, Ecosystems and Environment</i> , 2000, 81, 125-135.	2.5	58
48	Sediment concentration in interrill flow: interactions between soil surface conditions, vegetation and rainfall. <i>Earth Surface Processes and Landforms</i> , 2002, 27, 193-205.	1.2	57
49	Modelling ephemeral gully erosion in small cultivated catchments. <i>Catena</i> , 2003, 50, 489-505.	2.2	56
50	Spatial variability of soil aggregate stability at the scale of an agricultural region in Tunisia. <i>Catena</i> , 2017, 153, 157-167.	2.2	50
51	Trait-based approach for agroecology: contribution of service crop root traits to explain soil aggregate stability in vineyards. <i>Plant and Soil</i> , 2019, 435, 1-14.	1.8	50
52	Fingerprinting sediment sources in the outlet reservoir of a hilly cultivated catchment in Tunisia. <i>Journal of Soils and Sediments</i> , 2013, 13, 801-815.	1.5	49
53	Aggregate stability of a crusted soil: differences between crust and subcrust material, and consequences for interrill erodibility assessment. An example from the Loess Plateau of China. <i>European Journal of Soil Science</i> , 2014, 65, 325-335.	1.8	47
54	Interrill erosion in the sloping lands of northern Laos subjected to shifting cultivation. <i>Earth Surface Processes and Landforms</i> , 2007, 32, 415-428.	1.2	45

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55	Modelling the impact of land use change and rainfall seasonality on sediment export from an agricultural catchment of the northwestern European loess belt. <i>Agriculture, Ecosystems and Environment</i> , 2010, 138, 83-94.	2.5	45
56	MAPPING LINEAR EROSION FEATURES USING HIGH AND VERY HIGH RESOLUTION SATELLITE IMAGERY. <i>Land Degradation and Development</i> , 2013, 24, 22-32.	1.8	45
57	Laboratory Visâ€NIR spectroscopy as an alternative method for estimating the soil aggregate stability indexes of Mediterranean soils. <i>Geoderma</i> , 2013, 209-210, 86-97.	2.3	45
58	Modelling the impact of agri-environmental scenarios on runoff in a cultivated catchment (Normandy, France). <i>Catena</i> , 2005, 61, 229-240.	2.2	44
59	Soil resistance to interrill erosion: Model parameterization and sensitivity. <i>Catena</i> , 2009, 77, 274-284.	2.2	44
60	Short-Term Dynamics of Soil Aggregate Stability in the Field. <i>Soil Science Society of America Journal</i> , 2014, 78, 1168-1176.	1.2	40
61	Landscaping compromises for land degradation neutrality: The case of soil erosion in a Mediterranean agricultural landscape. <i>Journal of Environmental Management</i> , 2019, 235, 282-292.	3.8	40
62	Sheet and Rill Erosion. , 2006, , 501-513.		37
63	Temporal dynamics of runoff and soil loss on a plot scale under a coffee plantation on steep soil (Ultisol), Costa Rica. <i>Journal of Hydrology</i> , 2015, 523, 409-426.	2.3	37
64	LandSoil: A model for analysing the impact of erosion on agricultural landscape evolution. <i>Geomorphology</i> , 2012, 175-176, 25-37.	1.1	36
65	Prediction of sediment load by sediment rating curve and neural network (ANN) in El Kebir catchment, Algeria. <i>Journal of Earth System Science</i> , 2013, 122, 1303-1312.	0.6	36
66	Main Issues for Preserving Mediterranean Soil Resources From Water Erosion Under Global Change. <i>Land Degradation and Development</i> , 2018, 29, 789-799.	1.8	36
67	Coupled simulation of surface runoff and soil water flow using multi-objective parameter estimation. <i>Journal of Hydrology</i> , 2011, 403, 141-156.	2.3	33
68	Comportement d'agrÃ©gats terreux soumis Ã l'action de l'eau : analyse des mÃ©canismes de dÃ©sagrÃ©gation. <i>Agronomy for Sustainable Development</i> , 1988, 8, 915-924.	0.8	32
69	Reliability of an expert-based runoff and erosion model: Application of STREAM to different environments. <i>Catena</i> , 2009, 78, 129-141.	2.2	31
70	Contribution of multi-temporal SPOT data to the mapping of a soil erosion index. The case of the loamy plateaux of northern France. <i>Soil and Tillage Research</i> , 1997, 10, 99-110.	0.4	27
71	Topographic dependence of aggregate stability, overland flow and sediment transport. <i>Agronomy for Sustainable Development</i> , 2002, 22, 489-501.	0.8	27
72	MHYDAS-Erosion: a distributed single-storm water erosion model for agricultural catchments. <i>Hydrological Processes</i> , 2011, 25, 1717-1728.	1.1	25

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73	Effets du travail du sol et de la gestion des résidus sur les propriétés du sol et sur l'érosion hydrique d'un Vertisol Méditerranéen. <i>Canadian Journal of Soil Science</i> , 2011, 91, 627-635.	0.5	24
74	Simulation of medium-term soil redistributions for different land use and landscape design scenarios within a vineyard landscape in Mediterranean France. <i>Geomorphology</i> , 2014, 214, 10-21.	1.1	24
75	Immediate and long-term effect of tannins on the stabilization of soil aggregates. <i>Soil Biology and Biochemistry</i> , 2017, 105, 197-205.	4.2	24
76	Changes in structural stability with soil surface crusting: consequences for erodibility estimation. <i>European Journal of Soil Science</i> , 2007, 58, 1107-1114.	1.8	23
77	Remote-sensing data as an alternative input for the "STREAM" runoff model. <i>Catena</i> , 2005, 62, 125-135.	2.2	22
78	Combining field monitoring and aerial imagery to evaluate the role of gully erosion in a Mediterranean catchment (Tunisia). <i>Catena</i> , 2018, 170, 73-83.	2.2	21
79	Soil Surface Structure Effect on Isoproturon and Diflufenican Loss in Runoff. <i>Journal of Environmental Quality</i> , 2001, 30, 2113-2119.	1.0	20
80	Soil cracking effects on hydrological and erosive processes: a study case in Mediterranean cultivated vertisols. <i>Hydrological Processes</i> , 2016, 30, 4154-4167.	1.1	20
81	Stakeholders' perception of the relevance of water and sediment connectivity in water and land management. <i>Land Degradation and Development</i> , 2018, 29, 1833-1844.	1.8	18
82	Dynamic evolution of the unsaturated hydraulic conductivity of a developing crust. <i>Earth Surface Processes and Landforms</i> , 2004, 29, 1131-1142.	1.2	17
83	Improvement of surface flow network prediction for the modeling of erosion processes in agricultural landscapes. <i>Geomorphology</i> , 2013, 183, 120-129.	1.1	17
84	Temporal variability and time compression of sediment yield in small Mediterranean catchments: impacts for land and water management. <i>Soil Use and Management</i> , 2018, 34, 388-403.	2.6	16
85	Designing management options to reduce surface runoff and sediment yield with farmers: An experiment in south-western France. <i>Journal of Environmental Management</i> , 2012, 96, 74-85.	3.8	11
86	Microgeometrical characterisation and percolation threshold evolution of a soil crust under rainfall. <i>Catena</i> , 2005, 62, 173-188.	2.2	10
87	Sensitivity analysis of distributed erosion models: Framework. <i>Water Resources Research</i> , 2010, 46, .	1.7	10
88	A Spatiotemporal Multiscale Analysis of Runoff and Erosion in a Mediterranean Marly Catchment. <i>Vadose Zone Journal</i> , 2017, 16, 1-12.	1.3	10
89	Anthropogenic Reservoirs of Various Sizes Trap Most of the Sediment in the Mediterranean Maghreb Basin. <i>Water (Switzerland)</i> , 2018, 10, 927.	1.2	10
90	The effect of four calcium-based amendments on soil aggregate stability of two sandy topsoils. <i>Journal of Plant Nutrition and Soil Science</i> , 2019, 182, 159-166.	1.1	10

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91	Comparative sensitivity analysis of four distributed erosion models. <i>Water Resources Research</i> , 2011, 47, .	1.7	8
92	Evaluating the Impact of the Spatial Distribution of Land Management Practices on Water Erosion: Case Study of a Mediterranean Catchment. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, .	0.8	7
93	Le Bissonnais, Y. (1996). Aggregate stability and assessment of crustability and erodibility: 1. Theory and methodology. <i>European Journal of Soil Science</i> , 47, 425-437. <i>European Journal of Soil Science</i> , 2016, 67, 2-4.	1.8	6
94	Soil Surface Crusting and Structure Slumping in Europe. , 2006, , 489-500.		5
95	Impact of Global changes on soil vulnerability in the Mediterranean basin. , 2011, , .		3
96	ASSESSMENT OF THE ARTIFICIAL NEURAL NETWORKS TO GEOMORPHIC MODELLING OF SEDIMENT YIELD FOR UNGAUGED CATCHMENTS, ALGERIA. <i>Journal of Urban and Environmental Engineering</i> , 0, , 175-185.	0.3	2
97	Pan-European Soil Erodibility Assessment. , 2006, , 685-693.		1