

Jorge Mataix-Solera

List of Publications by Year in descending order

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101
papers

6,574
citations

61984

43
h-index

69250

77
g-index

113
all docs

113
docs citations

113
times ranked

5726
citing authors

#	ARTICLE	IF	CITATIONS
1	The interdisciplinary nature of <i>SOIL</i>. Soil, 2015, 1, 117-129.	4.9	494
2	Fire effects on soil aggregation: A review. Earth-Science Reviews, 2011, 109, 44-60.	9.1	471
3	Wildland fire ash: Production, composition and eco-hydro-geomorphic effects. Earth-Science Reviews, 2014, 130, 103-127.	9.1	434
4	Hydrophobicity and aggregate stability in calcareous topsoils from fire-affected pine forests in southeastern Spain. Geoderma, 2004, 118, 77-88.	5.1	286
5	Near infrared spectroscopy for determination of various physical, chemical and biochemical properties in Mediterranean soils. Soil Biology and Biochemistry, 2008, 40, 1923-1930.	8.8	238
6	Soil microbial biomass and activity under different agricultural management systems in a semiarid Mediterranean agroecosystem. Soil and Tillage Research, 2010, 109, 110-115.	5.6	198
7	Effects of agricultural management on surface soil properties and soil water losses in eastern Spain. Soil and Tillage Research, 2009, 106, 117-123.	5.6	181
8	Factors controlling the aggregate stability and bulk density in two different degraded soils amended with biosolids. Soil and Tillage Research, 2005, 82, 65-76.	5.6	152
9	Soil structural stability and erosion rates influenced by agricultural management practices in a semi-arid Mediterranean agroecosystem. Soil Use and Management, 2012, 28, 571-579.	4.9	133
10	The wettability of ash from burned vegetation and its relationship to Mediterranean plant species type, burn severity and total organic carbon content. Geoderma, 2011, 160, 599-607.	5.1	127
11	Changes in soil microbial community structure following the abandonment of agricultural terraces in mountainous areas of Eastern Spain. Applied Soil Ecology, 2009, 42, 315-323.	4.3	122
12	Water repellency under different plant species in a calcareous forest soil in a semiarid Mediterranean environment. Hydrological Processes, 2007, 21, 2300-2309.	2.6	104
13	Soil microbial recolonisation after a fire in a Mediterranean forest. Biology and Fertility of Soils, 2011, 47, 261-272.	4.3	103
14	Assessing air-drying and rewetting pre-treatment effect on some soil enzyme activities under Mediterranean conditions. Soil Biology and Biochemistry, 2006, 38, 2125-2134.	8.8	99
15	Short-term effects of experimental fire for a soil under eucalyptus forest (SE Australia). Geoderma, 2011, 167-168, 125-134.	5.1	99
16	Modelling the Impacts of Wildfire on Ash Thickness in a Short-Term Period. Land Degradation and Development, 2015, 26, 180-192.	3.9	94
17	Algae influence the hydrophysical parameters of a sandy soil. Catena, 2013, 108, 58-68.	5.0	93
18	Hydrological effects of a layer of vegetation ash on underlying wettable and water repellent soil. Geoderma, 2012, 191, 14-23.	5.1	92

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19	Effect of fire severity on water repellency and aggregate stability on Mexican volcanic soils. <i>Catena</i> , 2011, 84, 136-147.	5.0	90
20	Immediate effects of wildfires on water repellency and aggregate stability in Mediterranean calcareous soils. <i>Catena</i> , 2008, 74, 219-226.	5.0	88
21	Effects of a low severity prescribed fire on water-soluble elements in ash from a cork oak (<i>Quercus</i>) Tj ETQq1 1 0.784314 rgBT /Overlo 237-247.	7.5	84
22	Microbial recolonization and chemical changes in a soil heated at different temperatures. <i>International Journal of Wildland Fire</i> , 2005, 14, 385.	2.4	82
23	Soil organic matter and aggregates affected by wildfire in a <i>Pinus halepensis</i> forest in a Mediterranean environment. <i>International Journal of Wildland Fire</i> , 2002, 11, 107.	2.4	81
24	Spatial models for monitoring the spatio-temporal evolution of ashes after fire – a case study of a burnt grassland in Lithuania. <i>Solid Earth</i> , 2013, 4, 153-165.	2.8	78
25	Thermal destruction of soil water repellency and associated changes to soil organic matter as observed by FTIR spectroscopy. <i>Catena</i> , 2008, 74, 205-211.	5.0	76
26	Short-term effects of treated wastewater irrigation on Mediterranean calcareous soil. <i>Soil and Tillage Research</i> , 2011, 112, 18-26.	5.6	73
27	Wildfire effects on extractable elements in ash from a <i>Pinus pinaster</i> forest in Portugal. <i>Hydrological Processes</i> , 2014, 28, 3681-3690.	2.6	72
28	Biological and chemical factors controlling the patchy distribution of soil water repellency among plant species in a Mediterranean semiarid forest. <i>Geoderma</i> , 2013, 207-208, 212-220.	5.1	70
29	Threshold water content beyond which hydrophobic soils become hydrophilic: The role of soil texture and organic matter content. <i>Geoderma</i> , 2013, 209-210, 177-187.	5.1	70
30	FT-IR spectroscopy reveals that ash water repellency is highly dependent on ash chemical composition. <i>Catena</i> , 2013, 108, 35-43.	5.0	68
31	Soil water repellency: Origin, assessment and geomorphological consequences. <i>Catena</i> , 2013, 108, 1-5.	5.0	66
32	Reclamation of a burned forest soil with municipal waste compost: macronutrient dynamic and improved vegetation cover recovery. <i>Bioresource Technology</i> , 2001, 76, 221-227.	9.6	65
33	Evaluation of soil quality using multiple lineal regression based on physical, chemical and biochemical properties. <i>Science of the Total Environment</i> , 2007, 378, 233-237.	8.0	65
34	Can occurrence of soil hydrophobicity promote the increase of aggregates stability?. <i>Catena</i> , 2013, 110, 24-31.	5.0	65
35	Effects of salvage logging on soil properties and vegetation recovery in a fire-affected Mediterranean forest: A two year monitoring research. <i>Science of the Total Environment</i> , 2017, 586, 1057-1065.	8.0	64
36	Forest Fire Effects on Soil Microbiology. , 2009, , 133-175.		61

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37	Evaluation of different clay minerals as additives for soil water repellency alleviation. <i>Applied Clay Science</i> , 2006, 31, 238-248.	5.2	59
38	Short-term Vegetation Recovery after a Grassland Fire in Lithuania: The Effects of Fire Severity, Slope Position and Aspect. <i>Land Degradation and Development</i> , 2016, 27, 1523-1534.	3.9	57
39	Factors controlling the water repellency induced by fire in calcareous Mediterranean forest soils. <i>European Journal of Soil Science</i> , 2007, 58, 1254-1259.	3.9	56
40	Spatial and temporal variations of water repellency and probability of its occurrence in calcareous Mediterranean rangeland soils affected by fires. <i>Catena</i> , 2013, 108, 14-25.	5.0	56
41	Soil properties under natural forest in the Alicante Province of Spain. <i>Geoderma</i> , 2007, 142, 334-341.	5.1	55
42	Wildfire effects on the soil seed bank of a maritime pine stand – The importance of fire severity. <i>Geoderma</i> , 2012, 191, 80-88.	5.1	52
43	Assessing the effects of air-drying and rewetting pre-treatment on soil microbial biomass, basal respiration, metabolic quotient and soluble carbon under Mediterranean conditions. <i>European Journal of Soil Biology</i> , 2007, 43, 120-129.	3.2	48
44	Soil properties as key factors controlling water repellency in fire-affected areas: Evidences from burned sites in Spain and Israel. <i>Catena</i> , 2013, 108, 6-13.	5.0	48
45	Different Patterns of Aggregate Stability in Burned and Restored Soils. <i>Arid Land Research and Management</i> , 2001, 15, 163-171.	1.6	47
46	Short-term changes in soil Munsell colour value, organic matter content and soil water repellency after a spring grassland fire in Lithuania. <i>Solid Earth</i> , 2014, 5, 209-225.	2.8	45
47	Can terra rossa become water repellent by burning? A laboratory approach. <i>Geoderma</i> , 2008, 147, 178-184.	5.1	43
48	Storage Effects on Biochemical Properties of Air-Dried Soil Samples from Southeastern Spain. <i>Arid Land Research and Management</i> , 2009, 23, 213-222.	1.6	43
49	Extent and persistence of soil water repellency induced by pines in different geographic regions. <i>Journal of Hydrology and Hydromechanics</i> , 2018, 66, 360-368.	2.0	43
50	Application of Thermal Analysis to Elucidate Water Repellency Changes in Heated Soils. <i>Soil Science Society of America Journal</i> , 2008, 72, 1-10.	2.2	42
51	Geostatistical methods to identify and map spatial variations of soil salinity. <i>Journal of Geochemical Exploration</i> , 2011, 108, 62-72.	3.2	42
52	Validating the effectiveness and sensitivity of two soil quality indices based on natural forest soils under Mediterranean conditions. <i>Soil Biology and Biochemistry</i> , 2008, 40, 2079-2087.	8.8	39
53	Impact of an intense rainfall event on soil properties following a wildfire in a Mediterranean environment (North-East Spain). <i>Science of the Total Environment</i> , 2016, 572, 1353-1362.	8.0	39
54	Assessment of promising agricultural management practices. <i>Science of the Total Environment</i> , 2019, 649, 610-619.	8.0	38

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55	Water repellency as conditioned by particle size and drying in hydrophobized sand. <i>Geoderma</i> , 2013, 209-210, 31-40.	5.1	37
56	Near-Infrared Spectroscopy to Estimate the Maximum Temperatures Reached on Burned Soils. <i>Soil Science Society of America Journal</i> , 2007, 71, 1029-1037.	2.2	36
57	Application of minidisk infiltrometer to estimate water repellency in Mediterranean pine forest soils. <i>Journal of Hydrology and Hydromechanics</i> , 2017, 65, 254-263.	2.0	35
58	Temporal characterisation of soil-plant natural recovery related to fire severity in burned <i>Pinus halepensis</i> Mill. forests. <i>Science of the Total Environment</i> , 2018, 640-641, 42-51.	8.0	35
59	Long-term changes in soil aggregation comparing forest and agricultural land use in different Mediterranean soil types. <i>Geoderma</i> , 2014, 235-236, 290-299.	5.1	32
60	Temporal changes in soil water repellency after a forest fire in a Mediterranean calcareous soil: Influence of ash and different vegetation type. <i>Science of the Total Environment</i> , 2016, 572, 1252-1260.	8.0	32
61	Influence of plant species on physical, chemical and biological soil properties in a Mediterranean forest soil. <i>European Journal of Forest Research</i> , 2010, 129, 15-24.	2.5	31
62	Application of soil quality indices to assess the status of agricultural soils irrigated with treated wastewaters. <i>Solid Earth</i> , 2013, 4, 119-127.	2.8	31
63	The burn severity and plant recovery relationship affect the biological and chemical soil properties of <i>Pinus halepensis</i> Mill. stands in the short and mid-terms after wildfire. <i>Journal of Environmental Management</i> , 2019, 235, 250-256.	7.8	31
64	Effect of solid waste compost on microbiological and physical properties of a burnt forest soil in field experiments. <i>Biology and Fertility of Soils</i> , 2000, 32, 410-414.	4.3	30
65	Relationships between soil water repellency and microbial community composition under different plant species in a Mediterranean semiarid forest. <i>Journal of Hydrology and Hydromechanics</i> , 2014, 62, 101-107.	2.0	30
66	The role of mosses in soil stability, fertility and microbiology six years after a post-fire salvage logging management. <i>Journal of Environmental Management</i> , 2020, 262, 110287.	7.8	30
67	Natural soil water repellency in different types of Mediterranean woodlands. <i>Geoderma</i> , 2014, 226-227, 170-178.	5.1	26
68	Mobility of cadmium, chromium, and nickel through the profile of a calcisol treated with sewage sludge in the southeast of Spain. <i>Environmental Geology</i> , 2003, 44, 545-553.	1.2	25
69	Fire in Protected Areas - the Effect of Protection and Importance of Fire Management. <i>Environmental Research, Engineering and Management</i> , 2012, 59, .	1.0	22
70	Advances in the knowledge of how heating can affect aggregate stability in Mediterranean soils: a XDR and SEM-EDX approach. <i>Catena</i> , 2016, 147, 315-324.	5.0	21
71	Alternative analysis of transient infiltration experiment to estimate soil water repellency. <i>Hydrological Processes</i> , 2019, 33, 661-674.	2.6	20
72	Longevity of soil water repellency in a former wastewater disposal tree stand and potential amelioration. <i>Geoderma</i> , 2011, 165, 78-83.	5.1	19

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73	How clear-cutting affects fire severity and soil properties in a Mediterranean ecosystem. <i>Journal of Environmental Management</i> , 2018, 206, 625-632.	7.8	19
74	Visual assessment of the impact of agricultural management practices on soil quality. <i>Agronomy Journal</i> , 2020, 112, 2608-2623.	1.8	19
75	Comparison of Soil Physical, Chemical, and Biochemical Properties Among Native Forest, Maintained and Abandoned Almond Orchards in Mountainous Areas of Eastern Spain. <i>Arid Land Research and Management</i> , 2009, 23, 267-282.	1.6	18
76	Plant community influence on soil microbial response after a wildfire in Sierra Nevada National Park (Spain). <i>Science of the Total Environment</i> , 2016, 573, 1265-1274.	8.0	18
77	Small variations of soil properties control fire-induced water repellency .. <i>Spanish Journal of Soil Science</i> , 0, 4, .	0.0	18
78	Soil hydro-physical changes in natural grassland of southern Brazil subjected to burning management. <i>Soil Research</i> , 2012, 50, 465.	1.1	17
79	The impact of post-fire salvage logging on microbial nitrogen cyclers in Mediterranean forest soil. <i>Science of the Total Environment</i> , 2018, 619-620, 1079-1087.	8.0	17
80	The presence of ash as an interference factor in the estimation of the maximum temperature reached in burned soils using near-infrared spectroscopy (NIR). <i>Catena</i> , 2008, 74, 177-184.	5.0	16
81	Organic matter and wettability characteristics of wildfire ash from Mediterranean conifer forests. <i>Catena</i> , 2015, 135, 369-376.	5.0	16
82	Efectos de los incendios forestales en la vegetaci3n y el suelo en la cuenca mediterr3nea: revisi3n bibliogr3fica. <i>Boletin De La Asociacion De Geografos Espanoles</i> , 2012, , .	0.3	16
83	Spatio-temporal Vegetation Recuperation after a Grassland Fire in Lithuania. <i>Procedia Environmental Sciences</i> , 2013, 19, 856-864.	1.4	14
84	Effects of relative humidity on the water repellency of fire-affected soils. <i>Catena</i> , 2016, 138, 68-76.	5.0	14
85	Environmental evaluation of sewage sludge application to reclaim limestone quarries wastes as soil amendments. <i>Soil Biology and Biochemistry</i> , 2007, 39, 1328-1332.	8.8	13
86	Effect of irrigation on the survival of total coliforms in three semiarid soils after amendment with sewage sludge. <i>Waste Management</i> , 2007, 27, 1815-1819.	7.4	12
87	Estimation of the maximum temperature reached in burned soils using near-infrared spectroscopy: Effects of soil sample pre-treatments. <i>Geoderma</i> , 2010, 158, 85-92.	5.1	12
88	Soil profile improvement as a by-product of gully stabilization measures. <i>Catena</i> , 2012, 92, 155-161.	5.0	12
89	Sensitivity of glomalin-related soil protein to wildfires: Immediate and medium-term changes. <i>Science of the Total Environment</i> , 2016, 572, 1238-1243.	8.0	11
90	Salvage logging alters microbial community structure and functioning after a wildfire in a Mediterranean forest. <i>Applied Soil Ecology</i> , 2021, 168, 104130.	4.3	11

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91	Glomalin-related Soil Protein Response to Heating Temperature: A Laboratory Approach. Land Degradation and Development, 2016, 27, 1432-1439.	3.9	10
92	Assessing the microbiological, biochemical, soil-physical and hydrological effects of amelioration of degraded soils in semiarid Spain. Biologia (Poland), 2007, 62, 542-546.	1.5	9
93	Repelencia al agua en suelos forestales afectados por incendios y en suelos agr�colas bajo distintos manejos y abandono. Cuadernos De Investigacion Geografica, 2012, 38, 53-74.	1.1	9
94	Fire effects on soil properties: A key issue in forest ecosystems. Catena, 2008, 74, 175-176.	5.0	8
95	Manuring effects on visual soil quality indicators and soil organic matter content in different pedoclimatic zones in Europe and China. Soil and Tillage Research, 2021, 212, 105033.	5.6	8
96	A review of the world's soil museums and exhibitions. Advances in Agronomy, 2021, 166, 277-304.	5.2	6
97	Nutrients in a calcareous soil affected by Cadmium. Journal of Plant Nutrition, 1998, 21, 1933-1941.	1.9	5
98	Soil Vulnerability Indicators to Degradation by Wildfires in Torres del Paine National Park (Patagonia,)	0.0	2
99	Effect of the application of two plant residues on the density and porosity of soils subjected to compaction. Spanish Journal of Soil Science, 0, 10, .	0.0	1
100	Grandes incendios forestales en Espa�a y alteraciones de su r�gimen en las �ltimas d�cadas. , 2021, , 147-161.		1
101	Promising Agricultural Management Practices and Soil Threats in Europe and China. Innovations in Landscape Research, 2021, , 195-213.	0.4	0