Federico Maggi

List of Publications by Year in descending order

125 papers	3,891 citations	159358 30 h-index	161609 54 g-index
129 all docs	129 docs citations	129 times ranked	3849 citing authors

#	Article	IF	Citations
1	Risk of pesticide pollution at the global scale. Nature Geoscience, 2021, 14, 206-210.	5.4	451
2	PEST-CHEMGRIDS, global gridded maps of the top 20 crop-specific pesticide application rates from 2015 to 2025. Scientific Data, 2019, 6, 170.	2.4	168
3	The global environmental hazard of glyphosate use. Science of the Total Environment, 2020, 717, 137167.	3.9	165
4	Bitlodine: Extracting Intelligence from the Bitcoin Network. Lecture Notes in Computer Science, 2014, , 457-468.	1.0	150
5	HelDroid: Dissecting and Detecting Mobile Ransomware. Lecture Notes in Computer Science, 2015, , 382-404.	1.0	140
6	Riparian biogeochemical hot moments induced by stream fluctuations. Water Resources Research, 2012, 48, .	1.7	110
7	Effect of variable fractal dimension on the floc size distribution of suspended cohesive sediment. Journal of Hydrology, 2007, 343, 43-55.	2.3	109
8	The settling velocity of mineral, biomineral, and biological particles and aggregates in water. Journal of Geophysical Research: Oceans, 2013, 118, 2118-2132.	1.0	102
9	A mechanistic treatment of the dominant soil nitrogen cycling processes: Model development, testing, and application. Journal of Geophysical Research, 2008, 113, .	3.3	97
10	Long residence times of rapidly decomposable soil organic matter: application of a multi-phase, multi-component, and vertically resolved model (BAMS1) to soil carbon dynamics. Geoscientific Model Development, 2014, 7, 1335-1355.	1.3	97
11	Phoenix: DGA-Based Botnet Tracking and Intelligence. Lecture Notes in Computer Science, 2014, , 192-211.	1.0	97
12	Face/Off. , 2015, , .		95
13	Detecting Intrusions through System Call Sequence and Argument Analysis. IEEE Transactions on Dependable and Secure Computing, 2010, 7, 381-395.	3.7	92
14	Biological flocculation of suspended particles in nutrient-rich aqueous ecosystems. Journal of Hydrology, 2009, 376, 116-125.	2.3	72
15	Variable fractal dimension: A major control for floc structure and flocculation kinematics of suspended cohesive sediment. Journal of Geophysical Research, 2007, 112, .	3.3	67
16	Mineral properties, microbes, transport, and plant-input profiles control vertical distribution and age of soil carbon stocks. Soil Biology and Biochemistry, 2017, 107, 244-259.	4.2	64
17	Analysis of glyphosate degradation in a soil microcosm. Environmental Pollution, 2018, 233, 201-207.	3.7	61
18	BankSealer: A decision support system for online banking fraud analysis and investigation. Computers and Security, 2015, 53, 175-186.	4.0	60

#	Article	IF	Citations
19	Experimental and numerical analysis of reservoir performance for geological CO 2 storage in the Ordos Basin in China. International Journal of Greenhouse Gas Control, 2016, 45, 216-232.	2.3	51
20	Lines of malicious code. , 2012, , .		45
21	Sinking of microbial-associated microplastics in natural waters. PLoS ONE, 2020, 15, e0228209.	1.1	41
22	A review of ion and metal pollutants in urban green water infrastructures. Science of the Total Environment, 2014, 470-471, 695-706.	3.9	40
23	A fast eavesdropping attack against touchscreens. , 2011, , .		39
24	Stranger danger. , 2014, , .		39
25	Microcosm experiments and kinetic modeling of glyphosate biodegradation in soils and sediments. Science of the Total Environment, 2019, 658, 105-115.	3.9	39
26	Reducing false positives in anomaly detectors through fuzzy alert aggregation. Information Fusion, 2009, 10, 300-311.	11.7	38
27	Analysis of the effect of organic matter content on the architecture and sinking of sediment aggregates. Marine Geology, 2015, 363, 102-111.	0.9	38
28	Method for computing the three-dimensional capacity dimension from two-dimensional projections of fractal aggregates. Physical Review E, 2004, 69, 011405.	0.8	36
29	Mathematical treatment of isotopologue and isotopomer speciation and fractionation in biochemical kinetics. Geochimica Et Cosmochimica Acta, 2010, 74, 1823-1835.	1.6	36
30	Protecting a Moving Target: Addressing Web Application Concept Drift. Lecture Notes in Computer Science, 2009, , 21-40.	1.0	36
31	Space agriculture in micro- and hypo-gravity: A comparative study of soil hydraulics and biogeochemistry in a cropping unit on Earth, Mars, the Moon and the space station. Planetary and Space Science, 2010, 58, 1996-2007.	0.9	35
32	Space-Time Point Pattern Analysis of Flavescence DorÃ©e Epidemic in a Grapevine Field: Disease Progression and Recovery. Frontiers in Plant Science, 2016, 7, 1987.	1.7	34
33	Multiphase capillary flows. International Journal of Multiphase Flow, 2012, 42, 62-73.	1.6	33
34	A mesocosm experiment of suspended particulate matter dynamics in nutrient- and biomass-affected waters. Water Research, 2016, 89, 76-86.	5.3	33
35	Coupled moisture and microbial dynamics in unsaturated soils. Water Resources Research, 2007, 43, .	1.7	32
36	AndroTotal. , 2013, , .		32

#	Article	IF	Citations
37	AndRadar: Fast Discovery of Android Applications in Alternative Markets. Lecture Notes in Computer Science, 2014, , 51-71.	1.0	30
38	All your face are belong to us. , 2012, , .		29
39	The promise and challenges of utility-scale compressed air energy storage in aquifers. Applied Energy, 2021, 286, 116513.	5.1	28
40	Kinetics of atrazine, deisopropylatrazine, and deethylatrazine soil biodecomposers. Journal of Environmental Management, 2016, 183, 673-686.	3.8	27
41	Biodegradation and Abiotic Degradation of Trifluralin: A Commonly Used Herbicide with a Poorly Understood Environmental Fate. Environmental Science & Technology, 2020, 54, 10399-10410.	4.6	25
42	Selecting and Improving System Call Models for Anomaly Detection. Lecture Notes in Computer Science, 2009, , 206-223.	1.0	24
43	Martian base agriculture: The effect of low gravity on water flow, nutrient cycles, and microbial biomass dynamics. Advances in Space Research, 2010, 46, 1257-1265.	1.2	24
44	Capturing pressure- and rate-dependent behaviour of rocks using a new damage-plasticity model. International Journal of Impact Engineering, 2017, 110, 208-218.	2.4	24
45	Glyphosate dispersion, degradation, and aquifer contamination in vineyards and wheat fields in the Po Valley, Italy. Water Research, 2018, 146, 37-54.	5.3	24
46	Finding Non-trivial Malware Naming Inconsistencies. Lecture Notes in Computer Science, 2011, , 144-159.	1.0	24
47	Discrete element simulation of dynamic behaviour of partially saturated sand. International Journal of Mechanics and Materials in Design, 2016, 12, 495-507.	1.7	23
48	The pesticide health risk index - An application to the world's countries. Science of the Total Environment, 2021, 801, 149731.	3.9	23
49	Transient competitive complexation in biological kinetic isotope fractionation explains nonsteady isotopic effects: Theory and application to denitrification in soils. Journal of Geophysical Research, 2009, 114, .	3.3	22
50	Are the Con Artists Back? A Preliminary Analysis of Modern Phone Frauds. , 2010, , .		22
51	The effect of ¹⁵N to ¹⁴N ratio on nitrification, denitrification and dissimilatory nitrate reduction. Rapid Communications in Mass Spectrometry, 2012, 26, 430-442.	0.7	22
52	Uniaxial compressive behavior of partially saturated granular media under high strain rates. International Journal of Impact Engineering, 2017, 102, 156-168.	2.4	22
53	Experimental evidence of how the fractal structure controls the hydrodynamic resistance on granular aggregates moving through water. Journal of Hydrology, 2015, 528, 694-702.	2.3	20
54	Seeing the invisible. Operating Systems Review (ACM), 2008, 42, 51-58.	1.5	19

#	Article	IF	Citations
55	Modelling complex cracks with finite elements: a kinematically enriched constitutive model. International Journal of Fracture, 2017, 203, 21-39.	1.1	19
56	Image separation and geometric characterisation of mud flocs. Journal of Hydrology, 2006, 326, 325-348.	2.3	18
57	Spatiotemporal Assessment of GHG Emissions and Nutrient Sequestration Linked to Agronutrient Runoff in Global Wetlands. Global Biogeochemical Cycles, 2021, 35, e2020GB006816.	1.9	18
58	Controlling factors of microplastic fibre settling through a water column. Science of the Total Environment, 2022, 838, 156011.	3.9	18
59	Ozone and particle fluxes in a Mediterranean forest predicted by the AIRTREE model. Science of the Total Environment, 2019, 682, 494-504.	3.9	17
60	Atomistic Study of Dynamic Contact Angles in CO₂â€“Waterâ€“Silica System. Langmuir, 2019, 35, 5324-5332.	1.6	17
61	Probabilistic indicators for soil and groundwater contamination risk assessment. Ecological Indicators, 2020, 115, 106424.	2.6	17
62	Optimal description of two-dimensional complex-shaped objects using spheropolygons. Granular Matter, 2012, 14, 651-658.	1.1	16
63	Faces in the Distorting Mirror. , 2014, , .		16
64	Stochastic collision and aggregation analysis of kaolinite in water through experiments and the spheropolygon theory. Water Research, 2014, 53, 180-190.	5.3	16
65	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. International Journal of Impact Engineering, 2018, 116, 65-78.	2.4	16
66	A smoothed particle hydrodynamics framework for modelling multiphase interactions at meso-scale. Computational Mechanics, 2018, 62, 1071-1085.	2.2	16
67	Implications of uncertain bioreactive parameters on a complex reaction network of atrazine biodegradation in soil. Advances in Water Resources, 2018, 121, 263-276.	1.7	15
68	Pedotransfer functions for estimating soil hydraulic properties from saturation to dryness. Geoderma, 2021, 403, 115194.	2.3	15
69	Influence of surface roughness on methane flow in shale kerogen nano-slits. Journal of Natural Gas Science and Engineering, 2022, 103, 104650.	2.1	15
70	Jackdaw: Towards Automatic Reverse Engineering of Large Datasets of Binaries. Lecture Notes in Computer Science, 2015, , 121-143.	1.0	14
71	Decomposition Pathways and Rates of Human Urine in Soils. Journal of Agricultural and Food Chemistry, 2013, 61, 6175-6186.	2.4	13
72	A comprehensive black-box methodology for testing the forensic characteristics of solid-state drives. , 2013, , .		13

#	Article	IF	Citations
73	Effects of variable injection rate on reservoir responses and implications for CO₂ storage in saline aquifers. , 2019, 9, 652-671.		13
74	Breakdown, uptake and losses of human urine chemical compounds in barley (Hordeum vulgare) and soybean (Glycine max) agricultural plots. Nutrient Cycling in Agroecosystems, 2016, 104, 221-245.	1.1	12
75	In-situ atrazine biodegradation dynamics in wheat (Triticum) crops under variable hydrologic regime. Journal of Contaminant Hydrology, 2017, 203, 104-121.	1.6	12
76	Hourly and daily rainfall intensification causes opposing effects on C and N emissions, storage, and leaching in dry and wet grasslands. Biogeochemistry, 2019, 144, 197-214.	1.7	12
77	Pesticide mixtures in soil: a global outlook. Environmental Research Letters, 0, , .	2.2	12
78	Stochastic flocculation of cohesive sediment: Analysis of floc mobility within the floc size spectrum. Water Resources Research, 2008, 44, .	1.7	11
79	BURN. , 2011, , .		11
80	A Stage-Structured Model ofScaphoideus titanusin Vineyards. Environmental Entomology, 2013, 42, 181-193.	0.7	11
81	Biochemical modeling of microbial memory effects and catabolite repression on soil organic carbon compounds. Soil Biology and Biochemistry, 2019, 128, 1-12.	4.2	11
82	Assessment of large-scale offshore CO2 geological storage in Western Taiwan Basin. International Journal of Greenhouse Gas Control, 2013, 19, 281-298.	2.3	10
83	Optical Measurement of Cell Colonization Patterns on Individual Suspended Sediment Aggregates. Journal of Geophysical Research F: Earth Surface, 2017, 122, 1794-1807.	1.0	10
84	A Mechanistic Analysis of Wetland Biogeochemistry in Response to Temperature, Vegetation, and Nutrient Input Changes. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005437.	1.3	10
85	Chapter 19 Sensitivity to breakup functions of a population balance equation for cohesive sediments. Proceedings in Marine Science, 2008, 9, 275-286.	0.1	9
86	Multiphase capillary rise of multicomponent miscible liquids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 415, 119-124.	2.3	9
87	ZARATHUSTRA: Extracting Webinject signatures from banking trojans. , 2014, , .		9
88	The effect of temperature on the rate, affinity, and 15N fractionation of NO3 â^' during biological denitrification in soils. Biogeochemistry, 2015, 124, 235-253.	1.7	8
89	Geochemical modelling of heavy metals in urban stormwater biofilters. Ecological Engineering, 2017, 102, 565-576.	1.6	7
90	Impacts of relative permeability hysteresis on the reservoir performance in CO₂ storage in the Ordos Basin. , 2017, 7, 259-272.		7

#	Article	IF	Citations
91	Biomodulation of Nitrogen Cycle in Suspended Sediment. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1230-1246.	1.3	7
92	Reconstructing the fractal dimension of granular aggregates from light intensity spectra. Soft Matter, 2015, 11, 9150-9159.	1.2	6
93	Implicit Analytic Solution of Michaelisâ€“Mentenâ€“Monod Kinetics. ACS Omega, 2016, 1, 894-898.	1.6	6
94	The Thermodynamic Links between Substrate, Enzyme, and Microbial Dynamics in Michaelisâ€“Mentenâ€“Monod Kinetics. International Journal of Chemical Kinetics, 2018, 50, 343-356.	1.0	6
95	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. Soil Dynamics and Earthquake Engineering, 2019, 120, 245-256.	1.9	6
96	A social-engineering-centric data collection initiative to study phishing. , 2011, , .		5
97	Black-box forensic and antiforensic characteristics of solid-state drives. Journal of Computer Virology and Hacking Techniques, 2014, 10, 255-271.	1.6	5
98	A urine-fuelled soil-based bioregenerative life support system for long-term and long-distance manned space missions. Life Sciences in Space Research, 2018, 17, 1-14.	1.2	5
99	Estimated decline in global earthworm population size caused by pesticide residue in soil. Soil Security, 2021, 5, 100014.	1.2	5
100	Influential sources of uncertainty in glyphosate biochemical degradation in soil. Mathematics and Computers in Simulation, 2020, 175, 121-139.	2.4	5
101	Coarse-grained modeling of multiphase interactions at microscale. Journal of Chemical Physics, 2018, 149, 124505.	1.2	4
102	Time- and depth-resolved mechanistic assessment of water stress in Australian ecosystems under the CMIP6 scenarios. Advances in Water Resources, 2021, 148, 103837.	1.7	4
103	Carbon, Nitrogen, and Sulfur Elemental Fluxes in the Soil and Exchanges with the Atmosphere in Australian Tropical, Temperate, and Arid Wetlands. Atmosphere, 2021, 12, 42.	1.0	4
104	Dynamics of acquisition and transmission of â€œflavescence dorÃ©eâ€•phytoplasma in grapevine. Phytopathogenic Mollicutes, 2014, 4, 59.	0.1	4
105	SOIL-WATERGRIDS, mapping dynamic changes in soil moisture and depth of water table from 1970 to 2014. Scientific Data, 2021, 8, 263.	2.4	4
106	Temperature dependence of capillary dynamics: A multiphase and multicomponent adiabatic approach. Physical Review E, 2013, 88, 053013.	0.8	3
107	Living microorganisms change the information (Shannon) content of a geophysical system. Scientific Reports, 2017, 7, 3320.	1.6	3
108	Micro food web networks on suspended sediment. Science of the Total Environment, 2018, 643, 1387-1399.	3.9	3

#	Article	IF	Citations
109	Similarities and differences in the sensitivity of soil organic matter (SOM) dynamics to biogeochemical parameters for different vegetation inputs and climates. Stochastic Environmental Research and Risk Assessment, 2020, 34, 2229-2244.	1.9	3
110	Effective Multimodel Anomaly Detection Using Cooperative Negotiation. Lecture Notes in Computer Science, 2010, , 180-191.	1.0	3
111	Near Activation and Differential Activation in Enzymatic Reactions. International Journal of Chemical Kinetics, 2017, 49, 305-318.	1.0	2
112	A simple pre-factor for contaminant biodegradation potential and its application to pesticides risk assessment. Mathematics and Computers in Simulation, 2020, 175, 108-120.	2.4	1
113	Numerical investigation of microscale dynamic contact angles of the CO2â€“waterâ€“silica system using coarse-grained molecular approach. Computational Mechanics, 2020, 66, 707-722.	2.2	1
114	A Recognizer of Rational Trace Languages. , 2010, , .		0
115	Systems Security Research at Politecnico di Milano. , 2011, , .		0
116	Integrated detection of anomalous behavior of computer infrastructures. , 2012, , .		0
117	The rise of hydrological science off Earth. Journal of Hydrology, 2012, 416-417, 12-18.	2.3	0
118	Water retention in discrete element method. , 2013, , .		0
119	Chemically Induced Flow in Contaminated Unsaturated Soil. Vadose Zone Journal, 2019, 18, 190057.	1.3	0
120	Flood Exposure and Social Vulnerability for Prioritizing Local Adaptation of Urban Storm Water Systems. Lecture Notes in Mechanical Engineering, 2019, , 41-49.	0.3	0
121	Measurements of the relative permeability to CO 2 â€andâ€brine multiphase fluid of Paaratte formation at nearâ€reservoir conditions. , 2021, 11, 697-711.		0
122	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
123	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
124	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
125	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0