

# Federico Maggi

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Controlling factors of microplastic fibre settling through a water column. <i>Science of the Total Environment</i> , 2022, 838, 156011.	3.9	18
2	Influence of surface roughness on methane flow in shale kerogen nano-slits. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 103, 104650.	2.1	15
3	Time- and depth-resolved mechanistic assessment of water stress in Australian ecosystems under the CMIP6 scenarios. <i>Advances in Water Resources</i> , 2021, 148, 103837.	1.7	4
4	The promise and challenges of utility-scale compressed air energy storage in aquifers. <i>Applied Energy</i> , 2021, 286, 116513.	5.1	28
5	Risk of pesticide pollution at the global scale. <i>Nature Geoscience</i> , 2021, 14, 206-210.	5.4	451
6	Spatiotemporal Assessment of GHG Emissions and Nutrient Sequestration Linked to Agronutrient Runoff in Global Wetlands. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006816.	1.9	18
7	Measurements of the relative permeability to CO <sub>2</sub> and brine multiphase fluid of Paaratte formation at near-reservoir conditions. , 2021, 11, 697-711.		0
8	Pedotransfer functions for estimating soil hydraulic properties from saturation to dryness. <i>Geoderma</i> , 2021, 403, 115194.	2.3	15
9	Estimated decline in global earthworm population size caused by pesticide residue in soil. <i>Soil Security</i> , 2021, 5, 100014.	1.2	5
10	The pesticide health risk index - An application to the world's countries. <i>Science of the Total Environment</i> , 2021, 801, 149731.	3.9	23
11	Carbon, Nitrogen, and Sulfur Elemental Fluxes in the Soil and Exchanges with the Atmosphere in Australian Tropical, Temperate, and Arid Wetlands. <i>Atmosphere</i> , 2021, 12, 42.	1.0	4
12	SOIL-WATERGRIDS, mapping dynamic changes in soil moisture and depth of water table from 1970 to 2014. <i>Scientific Data</i> , 2021, 8, 263.	2.4	4
13	A simple pre-factor for contaminant biodegradation potential and its application to pesticides risk assessment. <i>Mathematics and Computers in Simulation</i> , 2020, 175, 108-120.	2.4	1
14	Biodegradation and Abiotic Degradation of Trifluralin: A Commonly Used Herbicide with a Poorly Understood Environmental Fate. <i>Environmental Science &amp; Technology</i> , 2020, 54, 10399-10410.	4.6	25
15	Similarities and differences in the sensitivity of soil organic matter (SOM) dynamics to biogeochemical parameters for different vegetation inputs and climates. <i>Stochastic Environmental Research and Risk Assessment</i> , 2020, 34, 2229-2244.	1.9	3
16	Probabilistic indicators for soil and groundwater contamination risk assessment. <i>Ecological Indicators</i> , 2020, 115, 106424.	2.6	17
17	Numerical investigation of microscale dynamic contact angles of the CO <sub>2</sub> -water-silica system using coarse-grained molecular approach. <i>Computational Mechanics</i> , 2020, 66, 707-722.	2.2	1
18	Sinking of microbial-associated microplastics in natural waters. <i>PLoS ONE</i> , 2020, 15, e0228209.	1.1	41

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19	The global environmental hazard of glyphosate use. <i>Science of the Total Environment</i> , 2020, 717, 137167.	3.9	165
20	A Mechanistic Analysis of Wetland Biogeochemistry in Response to Temperature, Vegetation, and Nutrient Input Changes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005437.	1.3	10
21	Influential sources of uncertainty in glyphosate biochemical degradation in soil. <i>Mathematics and Computers in Simulation</i> , 2020, 175, 121-139.	2.4	5
22	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
23	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
24	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
25	Sinking of microbial-associated microplastics in natural waters. , 2020, 15, e0228209.		0
26	Hourly and daily rainfall intensification causes opposing effects on C and N emissions, storage, and leaching in dry and wet grasslands. <i>Biogeochemistry</i> , 2019, 144, 197-214.	1.7	12
27	PEST-CHEMGRIDS, global gridded maps of the top 20 crop-specific pesticide application rates from 2015 to 2025. <i>Scientific Data</i> , 2019, 6, 170.	2.4	168
28	Ozone and particle fluxes in a Mediterranean forest predicted by the AIRTREE model. <i>Science of the Total Environment</i> , 2019, 682, 494-504.	3.9	17
29	Effects of variable injection rate on reservoir responses and implications for CO <sub>2</sub> storage in saline aquifers. , 2019, 9, 652-671.		13
30	Atomistic Study of Dynamic Contact Angles in CO <sub>2</sub> -Water-Silica System. <i>Langmuir</i> , 2019, 35, 5324-5332.	1.6	17
31	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. <i>Soil Dynamics and Earthquake Engineering</i> , 2019, 120, 245-256.	1.9	6
32	Chemically Induced Flow in Contaminated Unsaturated Soil. <i>Vadose Zone Journal</i> , 2019, 18, 190057.	1.3	0
33	Microcosm experiments and kinetic modeling of glyphosate biodegradation in soils and sediments. <i>Science of the Total Environment</i> , 2019, 658, 105-115.	3.9	39
34	Flood Exposure and Social Vulnerability for Prioritizing Local Adaptation of Urban Storm Water Systems. <i>Lecture Notes in Mechanical Engineering</i> , 2019, , 41-49.	0.3	0
35	Biochemical modeling of microbial memory effects and catabolite repression on soil organic carbon compounds. <i>Soil Biology and Biochemistry</i> , 2019, 128, 1-12.	4.2	11
36	The Thermodynamic Links between Substrate, Enzyme, and Microbial Dynamics in Michaelis-Menten-Monod Kinetics. <i>International Journal of Chemical Kinetics</i> , 2018, 50, 343-356.	1.0	6

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37	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. <i>International Journal of Impact Engineering</i> , 2018, 116, 65-78.	2.4	16
38	Biomodulation of Nitrogen Cycle in Suspended Sediment. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 1230-1246.	1.3	7
39	A smoothed particle hydrodynamics framework for modelling multiphase interactions at meso-scale. <i>Computational Mechanics</i> , 2018, 62, 1071-1085.	2.2	16
40	A urine-fuelled soil-based bioregenerative life support system for long-term and long-distance manned space missions. <i>Life Sciences in Space Research</i> , 2018, 17, 1-14.	1.2	5
41	Analysis of glyphosate degradation in a soil microcosm. <i>Environmental Pollution</i> , 2018, 233, 201-207.	3.7	61
42	Coarse-grained modeling of multiphase interactions at microscale. <i>Journal of Chemical Physics</i> , 2018, 149, 124505.	1.2	4
43	Glyphosate dispersion, degradation, and aquifer contamination in vineyards and wheat fields in the Po Valley, Italy. <i>Water Research</i> , 2018, 146, 37-54.	5.3	24
44	Implications of uncertain bioreactive parameters on a complex reaction network of atrazine biodegradation in soil. <i>Advances in Water Resources</i> , 2018, 121, 263-276.	1.7	15
45	Micro food web networks on suspended sediment. <i>Science of the Total Environment</i> , 2018, 643, 1387-1399.	3.9	3
46	Modelling complex cracks with finite elements: a kinematically enriched constitutive model. <i>International Journal of Fracture</i> , 2017, 203, 21-39.	1.1	19
47	Capturing pressure- and rate-dependent behaviour of rocks using a new damage-plasticity model. <i>International Journal of Impact Engineering</i> , 2017, 110, 208-218.	2.4	24
48	Geochemical modelling of heavy metals in urban stormwater biofilters. <i>Ecological Engineering</i> , 2017, 102, 565-576.	1.6	7
49	Mineral properties, microbes, transport, and plant-input profiles control vertical distribution and age of soil carbon stocks. <i>Soil Biology and Biochemistry</i> , 2017, 107, 244-259.	4.2	64
50	In-situ atrazine biodegradation dynamics in wheat ( <i>Triticum</i> ) crops under variable hydrologic regime. <i>Journal of Contaminant Hydrology</i> , 2017, 203, 104-121.	1.6	12
51	Near Activation and Differential Activation in Enzymatic Reactions. <i>International Journal of Chemical Kinetics</i> , 2017, 49, 305-318.	1.0	2
52	Uniaxial compressive behavior of partially saturated granular media under high strain rates. <i>International Journal of Impact Engineering</i> , 2017, 102, 156-168.	2.4	22
53	Living microorganisms change the information (Shannon) content of a geophysical system. <i>Scientific Reports</i> , 2017, 7, 3320.	1.6	3
54	Impacts of relative permeability hysteresis on the reservoir performance in CO <sub>2</sub> storage in the Ordos Basin. , 2017, 7, 259-272.		7

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55	Optical Measurement of Cell Colonization Patterns on Individual Suspended Sediment Aggregates. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 1794-1807.	1.0	10
56	Discrete element simulation of dynamic behaviour of partially saturated sand. <i>International Journal of Mechanics and Materials in Design</i> , 2016, 12, 495-507.	1.7	23
57	Kinetics of atrazine, deisopropylatrazine, and deethylatrazine soil biodecomposers. <i>Journal of Environmental Management</i> , 2016, 183, 673-686.	3.8	27
58	Implicit Analytic Solution of Michaelis-Menten-Monod Kinetics. <i>ACS Omega</i> , 2016, 1, 894-898.	1.6	6
59	Breakdown, uptake and losses of human urine chemical compounds in barley ( <i>Hordeum vulgare</i> ) and soybean ( <i>Glycine max</i> ) agricultural plots. <i>Nutrient Cycling in Agroecosystems</i> , 2016, 104, 221-245.	1.1	12
60	Experimental and numerical analysis of reservoir performance for geological CO <sub>2</sub> storage in the Ordos Basin in China. <i>International Journal of Greenhouse Gas Control</i> , 2016, 45, 216-232.	2.3	51
61	A mesocosm experiment of suspended particulate matter dynamics in nutrient- and biomass-affected waters. <i>Water Research</i> , 2016, 89, 76-86.	5.3	33
62	Space-Time Point Pattern Analysis of Flavescence Dore Epidemic in a Grapevine Field: Disease Progression and Recovery. <i>Frontiers in Plant Science</i> , 2016, 7, 1987.	1.7	34
63	Face/Off. , 2015, , .		95
64	Experimental evidence of how the fractal structure controls the hydrodynamic resistance on granular aggregates moving through water. <i>Journal of Hydrology</i> , 2015, 528, 694-702.	2.3	20
65	Reconstructing the fractal dimension of granular aggregates from light intensity spectra. <i>Soft Matter</i> , 2015, 11, 9150-9159.	1.2	6
66	Analysis of the effect of organic matter content on the architecture and sinking of sediment aggregates. <i>Marine Geology</i> , 2015, 363, 102-111.	0.9	38
67	BankSealer: A decision support system for online banking fraud analysis and investigation. <i>Computers and Security</i> , 2015, 53, 175-186.	4.0	60
68	The effect of temperature on the rate, affinity, and <sup>15</sup> N fractionation of NO <sub>3</sub> <sup>-</sup> during biological denitrification in soils. <i>Biogeochemistry</i> , 2015, 124, 235-253.	1.7	8
69	HelDroid: Dissecting and Detecting Mobile Ransomware. <i>Lecture Notes in Computer Science</i> , 2015, , 382-404.	1.0	140
70	Jackdaw: Towards Automatic Reverse Engineering of Large Datasets of Binaries. <i>Lecture Notes in Computer Science</i> , 2015, , 121-143.	1.0	14
71	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. <i>Geoscientific Model Development</i> , 2014, 7, 1335-1355.	1.3	97
72	Stranger danger. , 2014, , .		39

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73	Faces in the Distorting Mirror. , 2014, , .		16
74	Black-box forensic and antifoensic characteristics of solid-state drives. Journal of Computer Virology and Hacking Techniques, 2014, 10, 255-271.	1.6	5
75	Stochastic collision and aggregation analysis of kaolinite in water through experiments and the spheropolygon theory. Water Research, 2014, 53, 180-190.	5.3	16
76	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
77	ZARATHUSTRA: Extracting Webinject signatures from banking trojans. , 2014, , .		9
78	Phoenix: DGA-Based Botnet Tracking and Intelligence. Lecture Notes in Computer Science, 2014, , 192-211.	1.0	97
79	AndRadar: Fast Discovery of Android Applications in Alternative Markets. Lecture Notes in Computer Science, 2014, , 51-71.	1.0	30
80	Bitlodine: Extracting Intelligence from the Bitcoin Network. Lecture Notes in Computer Science, 2014, , 457-468.	1.0	150
81	Dynamics of acquisition and transmission of "œflavescence dor"œ" phytoplasma in grapevine. Phytopathogenic Mollicutes, 2014, 4, 59.	0.1	4
82	AndroTotal. , 2013, , .		32
83	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
84	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
85	Decomposition Pathways and Rates of Human Urine in Soils. Journal of Agricultural and Food Chemistry, 2013, 61, 6175-6186.	2.4	13
86	A Stage-Structured Model of <i>Scaphoideus titanus</i> in Vineyards. Environmental Entomology, 2013, 42, 181-193.	0.7	11
87	A comprehensive black-box methodology for testing the forensic characteristics of solid-state drives. , 2013, , .		13
88	Temperature dependence of capillary dynamics: A multiphase and multicomponent adiabatic approach. Physical Review E, 2013, 88, 053013.	0.8	3
89	Water retention in discrete element method. , 2013, , .		0
90	All your face are belong to us. , 2012, , .		29

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91	Lines of malicious code. , 2012, , .		45
92	Integrated detection of anomalous behavior of computer infrastructures. , 2012, , .		0
93	Optimal description of two-dimensional complex-shaped objects using spheropolygons. Granular Matter, 2012, 14, 651-658.	1.1	16
94	Riparian biogeochemical hot moments induced by stream fluctuations. Water Resources Research, 2012, 48, .	1.7	110
95	Multiphase capillary rise of multicomponent miscible liquids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 415, 119-124.	2.3	9
96	The effect of $^{15}\text{N}$ to $^{14}\text{N}$ ratio on nitrification, denitrification and dissimilatory nitrate reduction. Rapid Communications in Mass Spectrometry, 2012, 26, 430-442.	0.7	22
97	Multiphase capillary flows. International Journal of Multiphase Flow, 2012, 42, 62-73.	1.6	33
98	The rise of hydrological science off Earth. Journal of Hydrology, 2012, 416-417, 12-18.	2.3	0
99	Systems Security Research at Politecnico di Milano. , 2011, , .		0
100	A social-engineering-centric data collection initiative to study phishing. , 2011, , .		5
101	BURN. , 2011, , .		11
102	A fast eavesdropping attack against touchscreens. , 2011, , .		39
103	Finding Non-trivial Malware Naming Inconsistencies. Lecture Notes in Computer Science, 2011, , 144-159.	1.0	24
104	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
105	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
106	Are the Con Artists Back? A Preliminary Analysis of Modern Phone Frauds. , 2010, , .		22
107	Detecting Intrusions through System Call Sequence and Argument Analysis. IEEE Transactions on Dependable and Secure Computing, 2010, 7, 381-395.	3.7	92
108	Mathematical treatment of isotopologue and isotopomer speciation and fractionation in biochemical kinetics. Geochimica Et Cosmochimica Acta, 2010, 74, 1823-1835.	1.6	36

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109	A Recognizer of Rational Trace Languages. , 2010, , .		0
110	Effective Multimodel Anomaly Detection Using Cooperative Negotiation. Lecture Notes in Computer Science, 2010, , 180-191.	1.0	3
111	Selecting and Improving System Call Models for Anomaly Detection. Lecture Notes in Computer Science, 2009, , 206-223.	1.0	24
112	Biological flocculation of suspended particles in nutrient-rich aqueous ecosystems. Journal of Hydrology, 2009, 376, 116-125.	2.3	72
113	Reducing false positives in anomaly detectors through fuzzy alert aggregation. Information Fusion, 2009, 10, 300-311.	11.7	38
114	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
115	Protecting a Moving Target: Addressing Web Application Concept Drift. Lecture Notes in Computer Science, 2009, , 21-40.	1.0	36
116	A mechanistic treatment of the dominant soil nitrogen cycling processes: Model development, testing, and application. Journal of Geophysical Research, 2008, 113, .	3.3	97
117	Stochastic flocculation of cohesive sediment: Analysis of floc mobility within the floc size spectrum. Water Resources Research, 2008, 44, .	1.7	11
118	Seeing the invisible. Operating Systems Review (ACM), 2008, 42, 51-58.	1.5	19
119	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
120	Effect of variable fractal dimension on the floc size distribution of suspended cohesive sediment. Journal of Hydrology, 2007, 343, 43-55.	2.3	109
121	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
122	Coupled moisture and microbial dynamics in unsaturated soils. Water Resources Research, 2007, 43, .	1.7	32
123	Image separation and geometric characterisation of mud flocs. Journal of Hydrology, 2006, 326, 325-348.	2.3	18
124	Method for computing the three-dimensional capacity dimension from two-dimensional projections of fractal aggregates. Physical Review E, 2004, 69, 011405.	0.8	36
125	Pesticide mixtures in soil: a global outlook. Environmental Research Letters, 0, , .	2.2	12