

# Sabine Sauvage

## List of Publications by Year in descending order

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105  
papers

2,891  
citations

172207

29  
h-index

214527

47  
g-index

114  
all docs

114  
docs citations

114  
times ranked

3480  
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessment of hydrology, sediment and particulate organic carbon yield in a large agricultural catchment using the SWAT model. <i>Journal of Hydrology</i> , 2011, 401, 145-153.	2.3	171
2	Dynamics of suspended sediment transport and yield in a large agricultural catchment, southwest France. <i>Earth Surface Processes and Landforms</i> , 2010, 35, 1289-1301.	1.2	142
3	Assessing the capability of the SWAT model to simulate snow, snow melt and streamflow dynamics over an alpine watershed. <i>Journal of Hydrology</i> , 2015, 531, 574-588.	2.3	121
4	Assessing the importance of a self-generated detachment process in river biofilm models. <i>Freshwater Biology</i> , 2006, 51, 901-912.	1.2	95
5	The role of organisms in hyporheic processes: gaps in current knowledge, needs for future research and applications. <i>Annales De Limnologie</i> , 2012, 48, 253-266.	0.6	81
6	Denitrification in wetlands: A review towards a quantification at global scale. <i>Science of the Total Environment</i> , 2021, 754, 142398.	3.9	77
7	Interaction between local hydrodynamics and algal community in epilithic biofilm. <i>Water Research</i> , 2013, 47, 2153-2163.	5.3	70
8	Temporal variability of nitrate transport through hydrological response during flood events within a large agricultural catchment in south-west France. <i>Science of the Total Environment</i> , 2010, 409, 140-149.	3.9	61
9	Occurrence of metolachlor and trifluralin losses in the Save river agricultural catchment during floods. <i>Journal of Hazardous Materials</i> , 2011, 196, 210-219.	6.5	61
10	Fluvial transport of suspended sediment and organic carbon during flood events in a large agricultural catchment in southwest France. <i>Hydrological Processes</i> , 2011, 25, 2365-2378.	1.1	60
11	Spatio-temporal analysis of factors controlling nitrate dynamics and potential denitrification hot spots and hot moments in groundwater of an alluvial floodplain. <i>Ecological Engineering</i> , 2017, 103, 372-384.	1.6	60
12	Modelling Hydrology and Sediment Transport in a Semi-Arid and Anthropized Catchment Using the SWAT Model: The Case of the Tafna River (Northwest Algeria). <i>Water (Switzerland)</i> , 2017, 9, 216.	1.2	60
13	Comparison of Langmuir and Freundlich adsorption equations within the SWAT-K model for assessing potassium environmental losses at basin scale. <i>Agricultural Water Management</i> , 2017, 180, 205-211.	2.4	59
14	Water age prediction and its potential impacts on water quality using a hydrodynamic model for Poyang Lake, China. <i>Environmental Science and Pollution Research</i> , 2016, 23, 13327-13341.	2.7	55
15	Simulating Flash Floods at Hourly Time-Step Using the SWAT Model. <i>Water (Switzerland)</i> , 2017, 9, 929.	1.2	55
16	Sediment and nutrient dynamics during storm events in the Enxô temporary river, southern Portugal. <i>Catena</i> , 2015, 127, 177-190.	2.2	54
17	Improved simulation of river water and groundwater exchange in an alluvial plain using the SWAT model. <i>Hydrological Processes</i> , 2016, 30, 187-202.	1.1	53
18	Simulating Land Management Options to Reduce Nitrate Pollution in an Agricultural Watershed Dominated by an Alluvial Aquifer. <i>Journal of Environmental Quality</i> , 2014, 43, 67-74.	1.0	46

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19	Assessment of sediment and organic carbon exports into the Arctic ocean: The case of the Yenisei River basin. <i>Water Research</i> , 2019, 158, 118-135.	5.3	46
20	Assessment of the quantitative and qualitative buffer function of an alluvial wetland: hydrological modelling of a large floodplain (Garonne River, France). <i>Hydrological Processes</i> , 2003, 17, 2375-2392.	1.1	45
21	Assessing the hydrological response from an ensemble of CMIP5 climate projections in the transition zone of the Atlantic region (Bay of Biscay). <i>Journal of Hydrology</i> , 2017, 548, 46-62.	2.3	45
22	A coupled vertically integrated model to describe lateral exchanges between surface and subsurface in large alluvial floodplains with a fully penetrating river. <i>Hydrological Processes</i> , 2008, 22, 4257-4273.	1.1	44
23	New insight into pesticide partition coefficient $K_d$ for modelling pesticide fluvial transport: Application to an agricultural catchment in south-western France. <i>Chemosphere</i> , 2014, 99, 134-142.	4.2	43
24	Application date as a controlling factor of pesticide transfers to surface water during runoff events. <i>Catena</i> , 2014, 119, 97-103.	2.2	43
25	Longitudinal transformation of nitrogen and carbon in the hyporheic zone of an N-rich stream: A combined modelling and field study. <i>Physics and Chemistry of the Earth</i> , 2011, 36, 599-611.	1.2	37
26	On the Use of Hydrological Models and Satellite Data to Study the Water Budget of River Basins Affected by Human Activities: Examples from the Garonne Basin of France. <i>Surveys in Geophysics</i> , 2016, 37, 223-247.	2.1	36
27	Bioturbation in the Venice Lagoon: Rates and relationship to organisms. <i>Acta Oecologica</i> , 2007, 32, 14-25.	0.5	34
28	Influence of the hyporheic zone on the phosphorus dynamics of a large gravel-bed river, Garonne River, France. <i>Hydrological Processes</i> , 2009, 23, 1801-1812.	1.1	33
29	Daily Nitrate Losses: Implication on Long-Term River Quality in an Intensive Agricultural Catchment of Southwestern France. <i>Journal of Environmental Quality</i> , 2014, 43, 46-54.	1.0	31
30	Stream flow simulation and verification in ungauged zones by coupling hydrological and hydrodynamic models: a case study of the Poyang Lake ungauged zone. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 5847-5861.	1.9	31
31	Testing the SWAT Model with Gridded Weather Data of Different Spatial Resolutions. <i>Water (Switzerland)</i> , 2017, 9, 54.	1.2	29
32	Epilithic biomass in a large gravel-bed river (the Garonne, France): a manifestation of eutrophication?. <i>River Research and Applications</i> , 2002, 18, 343-354.	0.7	28
33	Modelling epilithic biofilms combining hydrodynamics, invertebrate grazing and algal traits. <i>Freshwater Biology</i> , 2014, 59, 1213-1228.	1.2	27
34	Cadmium transport in sediments by tubificid bioturbation: An assessment of model complexity. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 844-862.	1.6	26
35	Assessing the Water Footprint of Wheat and Maize in Haihe River Basin, Northern China (1956-2015). <i>Water (Switzerland)</i> , 2018, 10, 867.	1.2	26
36	Effect of near-bed turbulence on chronic detachment of epilithic biofilm: Experimental and modeling approaches. <i>Water Resources Research</i> , 2010, 46, .	1.7	25

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37	Spatially distributed modelling of surface water-groundwater exchanges during overbank flood events – a case study at the Garonne River. <i>Advances in Water Resources</i> , 2016, 94, 146-159.	1.7	25
38	Assessment of Hydrology and Sediment Yield in the Mekong River Basin Using SWAT Model. <i>Water (Switzerland)</i> , 2020, 12, 3503.	1.2	25
39	Effect of Land Use/Cover Change on the Hydrological Response of a Southern Center Basin of Chile. <i>Water (Switzerland)</i> , 2020, 12, 302.	1.2	25
40	Water resources and nitrate discharges in relation to agricultural land uses in an intensively irrigated watershed. <i>Science of the Total Environment</i> , 2019, 659, 1293-1306.	3.9	24
41	Identification of a minimal adequate model to describe the biomass dynamics of river epilithon. <i>River Research and Applications</i> , 2008, 24, 36-53.	0.7	23
42	Eutrophication and its effect on dissolved Si concentrations in the Garonne River (France). <i>Journal of Limnology</i> , 2009, 68, 368.	0.3	22
43	Application of the SWAT model to assess the impact of changes in agricultural management practices on water quality. <i>Hydrological Sciences Journal</i> , 0, , 1-19.	1.2	21
44	Bioturbation experiments in the Venice Lagoon. <i>Hydrobiologia</i> , 2003, 494, 245-250.	1.0	20
45	Can Recent Global Changes Explain the Dramatic Range Contraction of an Endangered Semi-Aquatic Mammal Species in the French Pyrenees?. <i>PLoS ONE</i> , 2016, 11, e0159941.	1.1	20
46	Different modelling approaches to evaluate nitrogen transport and turnover at the watershed scale. <i>Journal of Hydrology</i> , 2016, 539, 478-494.	2.3	20
47	Biodiversity and ecosystem purification service in an alluvial wetland. <i>Ecological Engineering</i> , 2017, 103, 359-371.	1.6	20
48	The Role of Ponds in Pesticide Dissipation at the Agricultural Catchment Scale: A Critical Review. <i>Water (Switzerland)</i> , 2021, 13, 1202.	1.2	20
49	Effects of wastewater treatment plant pollution on in-stream ecosystems functions in an agricultural watershed. <i>Annales De Limnologie</i> , 2009, 45, 79-92.	0.6	19
50	Integrating hydrological features and genetically validated occurrence data in occupancy modelling of an endemic and endangered semi-aquatic mammal, <i>Galemys pyrenaicus</i> , in a Pyrenean catchment. <i>Biological Conservation</i> , 2015, 184, 182-192.	1.9	19
51	Modelling trace metal transfer in large rivers under dynamic hydrology: A coupled hydrodynamic and chemical equilibrium model. <i>Environmental Modelling and Software</i> , 2017, 89, 77-96.	1.9	19
52	Modelling the role of riverbed compartments in the regulation of water quality as an ecological service. <i>Ecological Engineering</i> , 2018, 118, 19-30.	1.6	19
53	A modelling-based assessment of suspended sediment transport related to new damming in the Red River basin from 2000 to 2013. <i>Catena</i> , 2021, 197, 104958.	2.2	19
54	The MAELIA Multi-Agent Platform for Integrated Analysis of Interactions Between Agricultural Land-Use and Low-Water Management Strategies. <i>Lecture Notes in Computer Science</i> , 2014, , 85-100.	1.0	19

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55	The role of the hyporheic zone in the nitrogen dynamics of a semi-arid gravel bed stream located downstream of a heavily polluted reservoir (Tafna wadi, Algeria). <i>River Research and Applications</i> , 2008, 24, 183-196.	0.7	18
56	Using Modeling Tools to Better Understand Permafrost Hydrology. <i>Water (Switzerland)</i> , 2017, 9, 418.	1.2	18
57	Water balance assessment of an ungauged area in Poyang Lake watershed using a spatially distributed runoff coefficient model. <i>Journal of Hydroinformatics</i> , 2018, 20, 1009-1024.	1.1	18
58	ASSESSING THE CLIMATE FORECAST SYSTEM REANALYSIS WEATHER DATA DRIVEN HYDROLOGICAL MODEL FOR THE YANGTZE RIVER BASIN IN CHINA. <i>Applied Ecology and Environmental Research</i> , 2019, 17, 3615-3632.	0.2	18
59	A simple multi-criteria approach to delimitate nitrate attenuation zones in alluvial floodplains. Four cases in south-western Europe. <i>Ecological Engineering</i> , 2017, 103, 315-331.	1.6	17
60	Total water storage variability from GRACE mission and hydrological models for a 50,000 km <sup>2</sup> temperate watershed: the Garonne River basin (France). <i>Journal of Hydrology: Regional Studies</i> , 2019, 24, 100609.	1.0	17
61	Coevolution of Hydrological Cycle Components under Climate Change: The Case of the Garonne River in France. <i>Water (Switzerland)</i> , 2018, 10, 1870.	1.2	16
62	A Modeling Approach to Diagnose the Impacts of Global Changes on Discharge and Suspended Sediment Concentration within the Red River Basin. <i>Water (Switzerland)</i> , 2019, 11, 958.	1.2	16
63	Estimation of the Climate Change Impact on the Hydrological Balance in Basins of South-Central Chile. <i>Water (Switzerland)</i> , 2021, 13, 794.	1.2	16
64	A numerical tool to integrate biophysical diversity of a large regulated river: hydrobiogeochemical bases. The case of the Garonne River (France). <i>River Research and Applications</i> , 2003, 19, 181-198.	0.7	15
65	Modelling of trace metal transfer in a large river under different hydrological conditions (the Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.2	15
66	Macroinvertebrate community traits and nitrate removal in stream sediments. <i>Freshwater Biology</i> , 2017, 62, 929-944.	1.2	15
67	Role of biodiversity in the biogeochemical processes at the water-sediment interface of macroporous river bed: An experimental approach. <i>Ecological Engineering</i> , 2017, 103, 385-393.	1.6	14
68	Influence of nontrophic interactions between benthic invertebrates on river sediment processes: a microcosm study. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2004, 61, 1817-1831.	0.7	13
69	Assessment of ecological function indicators related to nitrate under multiple human stressors in a large watershed. <i>Ecological Indicators</i> , 2020, 111, 106016.	2.6	13
70	Hydrological Alteration Index as an Indicator of the Calibration Complexity of Water Quantity and Quality Modeling in the Context of Global Change. <i>Water (Switzerland)</i> , 2020, 12, 115.	1.2	13
71	Temporal Dynamics of River Biofilm in Constant Flows: A Case Study in a Riverside Laboratory Flume. <i>International Review of Hydrobiology</i> , 2010, 95, 156-170.	0.5	12
72	Role of the hyporheic heterotrophic biofilm on transformation and toxicity of pesticides. <i>Annales De Limnologie</i> , 2013, 49, 87-95.	0.6	12

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73	Daily denitrification rates in floodplains under contrasting pedo-climatic and anthropogenic contexts: modelling at the watershed scale. <i>Biogeochemistry</i> , 2020, 149, 317-336.	1.7	12
74	Estimating sediment and particulate organic nitrogen and particulate organic phosphorous yields from a volcanic watershed characterized by forest and agriculture using SWAT model. <i>Annales De Limnologie</i> , 2015, 51, 23-35.	0.6	11
75	Does land use impact on groundwater invertebrate diversity and functionality in floodplains?. <i>Ecological Engineering</i> , 2017, 103, 394-403.	1.6	11
76	Applications of a SWAT model to evaluate the contribution of the Tafna catchment (north-west) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6 Assessment, 2020, 192, 510.	1.3	11
77	Global-scale daily riverine DOC fluxes from lands to the oceans with a generic model. <i>Global and Planetary Change</i> , 2020, 194, 103294.	1.6	11
78	Role of Local Flow Conditions in River Biofilm Colonization and Early Growth. <i>River Research and Applications</i> , 2015, 31, 350-367.	0.7	10
79	Assessing the Climatic and Temporal Transposability of the SWAT Model across a Large Contrasted Watershed. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	0.8	9
80	Integrated Effects of Land Use and Topography on Streamflow Response to Precipitation in an Agriculture-Forest Dominated Northern Watershed. <i>Water (Switzerland)</i> , 2018, 10, 633.	1.2	9
81	A model for evaluating continental chemical weathering from riverine transports of dissolved major elements at a global scale. <i>Global and Planetary Change</i> , 2020, 192, 103226.	1.6	9
82	Denitrification and associated nitrous oxide and carbon dioxide emissions from the Amazonian wetlands. <i>Biogeosciences</i> , 2020, 17, 4297-4311.	1.3	9
83	A mass-balance approach to estimate in-stream processes in a large river. <i>Hydrological Processes</i> , 2008, 22, 420-428.	1.1	8
84	Assessing potassium environmental losses from a dairy farming watershed with the modified SWAT model. <i>Agricultural Water Management</i> , 2016, 175, 91-104.	2.4	8
85	On modeling chronic detachment of periphyton in artificial rough, open channel flow. <i>Desalination and Water Treatment</i> , 2012, 41, 79-87.	1.0	7
86	Evaluation of hydrology, suspended sediment and Nickel loads in a small watershed in Basque Country (Northern Spain) using eco-hydrological SWAT model. <i>Annales De Limnologie</i> , 2015, 51, 59-70.	0.6	7
87	Development and applications of the SWAT model to support sustainable river basin management on different scales. <i>Sustainability of Water Quality and Ecology</i> , 2016, 8, 1-3.	2.0	7
88	Floodplain capacity to depollute water in relation to the structure of biological communities. <i>Ecological Engineering</i> , 2017, 103, 301-314.	1.6	7
89	Using SWAT-LUD Model to Estimate the Influence of Water Exchange and Shallow Aquifer Denitrification on Water and Nitrate Flux. <i>Water (Switzerland)</i> , 2018, 10, 528.	1.2	6
90	A modelling approach to quantify the influence of fine sediment deposition on biogeochemical processes occurring in the hyporheic zone. <i>Annales De Limnologie</i> , 2012, 48, 279-287.	0.6	5

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91	Evaluation of hydrological response to extreme climate variability using SWAT model: application to the Fuhe basin of Poyang Lake watershed, China. <i>Hydrology Research</i> , 2017, 48, 1730-1744.	1.1	5
92	Long-term and event-scale sub-daily streamflow and sediment simulation in a small forested catchment. <i>Hydrological Sciences Journal</i> , 2021, 66, 862-873.	1.2	5
93	Sediment Balance Estimation of the "Cuvette Centrale"™ of the Congo River Basin Using the SWAT Hydrological Model. <i>Water (Switzerland)</i> , 2021, 13, 1388.	1.2	5
94	Density Effect of Eisenia sp. Epigeic Earthworms on the Hydraulic Conductivity of Sand Filters for Wastewater Treatment. <i>Water (Switzerland)</i> , 2022, 14, 1048.	1.2	5
95	Assessment of suspended sediment load variability in the Tonle Sap and Lower Mekong Rivers, Cambodia. <i>Catena</i> , 2021, 202, 105291.	2.2	4
96	Multiobjective optimization of eco-industrial parks: evaluation of environmental impacts at the watershed scale. <i>Computer Aided Chemical Engineering</i> , 2018, 43, 67-72.	0.3	2
97	Economic valuation of the natural service of nitrate regulation provided by rivers including dilution effects: Application to a semiarid region, the Ebro basin (Spain). <i>Ecological Indicators</i> , 2020, 117, 106608.	2.6	2
98	SWATLitho: A hydrogeochemical model to estimate daily geochemical loads at the catchment scale. <i>Environmental Modelling and Software</i> , 2021, 135, 104893.	1.9	2
99	Spatio-temporal trends of hydrological components: the case of the Tafna basin (northwestern) Tj ETQq1 1 0.784314 rgBT /Qverlock	1.2	2
100	Future climatic and hydrologic changes estimated by bias-adjusted regional climate model outputs of the Cordex-Africa project: case of the Tafna basin (North-Western Africa). <i>International Journal of Global Warming</i> , 2021, 23, 58.	0.2	2
101	Evolution of N-balance with qualitative expert evaluation approach. <i>Journal of Environmental Management</i> , 2021, 291, 112713.	3.8	1
102	Accounting for flow intermittence in freshwater species distribution modelling. <i>Ecohydrology</i> , 2021, 14, e2346.	1.1	1
103	On the Use of Hydrological Models and Satellite Data to Study the Water Budget of River Basins Affected by Human Activities: Examples from the Garonne Basin of France. <i>Space Sciences Series of ISSI</i> , 2016, , 33-57.	0.0	1
104	Assessment of Water Quality Regulation Functions in Southwestern Europe Watersheds. <i>Water (Switzerland)</i> , 2021, 13, 2980.	1.2	1
105	Modeling environmental services in rivers at catchment scale. <i>Annales De Limnologie</i> , 2015, 51, A1-A2.	0.6	1