Sabine Sauvage

List of Publications by Year
in descending order

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105 papers	2,891 citations	172457 29 h-index	214800 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. Journal of Hydrology, 2011, 401, 145-153.	5.4	171
2	Dynamics of suspended sediment transport and yield in a large agricultural catchment, southwest France. Earth Surface Processes and Landforms, 2010, 35, 1289-1301.	2.5	142
3	Assessing the capability of the SWAT model to simulate snow, snow melt and streamflow dynamics over an alpine watershed. Journal of Hydrology, 2015, 531, 574-588.	5.4	121
4	Assessing the importance of a self-generated detachment process in river biofilm models. Freshwater Biology, 2006, 51, 901-912.	2.4	95
5	The role of organisms in hyporheic processes: gaps in current knowledge, needs for future research and applications. Annales De Limnologie, 2012, 48, 253-266.	0.6	81
6	Denitrification in wetlands: A review towards a quantification at global scale. Science of the Total Environment, 2021, 754, 142398.	8.0	77
7	Interaction between local hydrodynamics and algal community in epilithic biofilm. Water Research, 2013, 47, 2153-2163.	11.3	70
8	Temporal variability of nitrate transport through hydrological response during flood events within a large agricultural catchment in south-west France. Science of the Total Environment, 2010, 409, 140-149.	8.0	61
9	Occurrence of metolachlor and trifluralin losses in the Save river agricultural catchment during floods. Journal of Hazardous Materials, 2011, 196, 210-219.	12.4	61
10	Fluvial transport of suspended sediment and organic carbon during flood events in a large agricultural catchment in southwest France. Hydrological Processes, 2011, 25, 2365-2378.	2.6	60
11	Spatio-temporal analysis of factors controlling nitrate dynamics and potential denitrification hot spots and hot moments in groundwater of an alluvial floodplain. Ecological Engineering, 2017, 103, 372-384.	3.6	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). Water (Switzerland), 2017, 9, 216.	2.7	60
13	Comparison of Langmuir and Freundlich adsorption equations within the SWAT-K model for assessing potassium environmental losses at basin scale. Agricultural Water Management, 2017, 180, 205-211.	5.6	59
14	Water age prediction and its potential impacts on water quality using a hydrodynamic model for Poyang Lake, China. Environmental Science and Pollution Research, 2016, 23, 13327-13341.	5.3	55
15	Simulating Flash Floods at Hourly Time-Step Using the SWAT Model. Water (Switzerland), 2017, 9, 929.	2.7	55
16	Sediment and nutrient dynamics during storm events in the EnxoÃ© temporary river, southern Portugal. Catena, 2015, 127, 177-190.	5.0	54
17	Improved simulation of river water and groundwater exchange in an alluvial plain using the SWAT model. Hydrological Processes, 2016, 30, 187-202.	2.6	53
18	Simulating Land Management Options to Reduce Nitrate Pollution in an Agricultural Watershed Dominated by an Alluvial Aquifer. Journal of Environmental Quality, 2014, 43, 67-74.	2.0	46

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19	Assessment of sediment and organic carbon exports into the Arctic ocean: The case of the Yenisei River basin. Water Research, 2019, 158, 118-135.	11.3	46
20	Assessment of the quantitative and qualitative buffer function of an alluvial wetland: hydrological modelling of a large floodplain (Garonne River, France). Hydrological Processes, 2003, 17, 2375-2392.	2.6	45
21	Assessing the hydrological response from an ensemble of CMIP5 climate projections in the transition zone of the Atlantic region (Bay of Biscay). Journal of Hydrology, 2017, 548, 46-62.	5.4	45
22	A coupled vertically integrated model to describe lateral exchanges between surface and subsurface in large alluvial floodplains with a fully penetrating river. Hydrological Processes, 2008, 22, 4257-4273.	2.6	44
23	New insight into pesticide partition coefficient Kd for modelling pesticide fluvial transport: Application to an agricultural catchment in south-western France. Chemosphere, 2014, 99, 134-142.	8.2	43
24	Application date as a controlling factor of pesticide transfers to surface water during runoff events. Catena, 2014, 119, 97-103.	5.0	43
25	Longitudinal transformation of nitrogen and carbon in the hyporheic zone of an N-rich stream: A combined modelling and field study. Physics and Chemistry of the Earth, 2011, 36, 599-611.	2.9	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. Surveys in Geophysics, 2016, 37, 223-247.	4.6	36
27	Bioturbation in the Venice Lagoon: Rates and relationship to organisms. Acta Oecologica, 2007, 32, 14-25.	1.1	34
28	Influence of the hyporheic zone on the phosphorus dynamics of a large gravelâ€bed river, Garonne River, France. Hydrological Processes, 2009, 23, 1801-1812.	2.6	33
29	Daily Nitrate Losses: Implication on Long-Term River Quality in an Intensive Agricultural Catchment of Southwestern France. Journal of Environmental Quality, 2014, 43, 46-54.	2.0	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. Hydrology and Earth System Sciences, 2017, 21, 5847-5861.	4.9	31
31	Testing the SWAT Model with Gridded Weather Data of Different Spatial Resolutions. Water (Switzerland), 2017, 9, 54.	2.7	29
32	Epilithic biomass in a large gravel-bed river (the Garonne, France): a manifestation of eutrophication?. River Research and Applications, 2002, 18, 343-354.	1.7	28
33	Modelling epilithic biofilms combining hydrodynamics, invertebrate grazing and algal traits. Freshwater Biology, 2014, 59, 1213-1228.	2.4	27
34	Cadmium transport in sediments by tubificid bioturbation: An assessment of model complexity. Geochimica Et Cosmochimica Acta, 2007, 71, 844-862.	3.9	26
35	Assessing the Water Footprint of Wheat and Maize in Haihe River Basin, Northern China (1956â€“2015). Water (Switzerland), 2018, 10, 867.	2.7	26
36	Effect of nearâ€bed turbulence on chronic detachment of epilithic biofilm: Experimental and modeling approaches. Water Resources Research, 2010, 46, .	4.2	25

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37	Spatially distributed modelling of surface water-groundwater exchanges during overbank flood events â€“ a case study at the Garonne River. Advances in Water Resources, 2016, 94, 146-159.	3.8	25
38	Assessment of Hydrology and Sediment Yield in the Mekong River Basin Using SWAT Model. Water (Switzerland), 2020, 12, 3503.	2.7	25
39	Effect of Land Use/Cover Change on the Hydrological Response of a Southern Center Basin of Chile. Water (Switzerland), 2020, 12, 302.	2.7	25
40	Water resources and nitrate discharges in relation to agricultural land uses in an intensively irrigated watershed. Science of the Total Environment, 2019, 659, 1293-1306.	8.0	24
41	Identification of a minimal adequate model to describe the biomass dynamics of river epilithon. River Research and Applications, 2008, 24, 36-53.	1.7	23
42	Eutrophication and its effect on dissolved Si concentrations in the Garonne River (France). Journal of Limnology, 2009, 68, 368.	1.1	22
43	Application of the SWAT model to assess the impact of changes in agricultural management practices on water quality. Hydrological Sciences Journal, 0, , 1-19.	2.6	21
44	Bioturbation experiments in the Venice Lagoon. Hydrobiologia, 2003, 494, 245-250.	2.0	20
45	Can Recent Global Changes Explain the Dramatic Range Contraction of an Endangered Semi-Aquatic Mammal Species in the French Pyrenees?. PLoS ONE, 2016, 11, e0159941.	2.5	20
46	Different modelling approaches to evaluate nitrogen transport and turnover at the watershed scale. Journal of Hydrology, 2016, 539, 478-494.	5.4	20
47	Biodiversity and ecosystem purification service in an alluvial wetland. Ecological Engineering, 2017, 103, 359-371.	3.6	20
48	The Role of Ponds in Pesticide Dissipation at the Agricultural Catchment Scale: A Critical Review. Water (Switzerland), 2021, 13, 1202.	2.7	20
49	Effects of wastewater treatment plant pollution on in-stream ecosystems functions in an agricultural watershed. Annales De Limnologie, 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, Galemys pyrenaicus , in a Pyrenean catchment. Biological Conservation, 2015, 184, 182-192.	4.1	19
51	Modelling trace metal transfer in large rivers under dynamic hydrology: A coupled hydrodynamic and chemical equilibrium model. Environmental Modelling and Software, 2017, 89, 77-96.	4.5	19
52	Modelling the role of riverbed compartments in the regulation of water quality as an ecological service. Ecological Engineering, 2018, 118, 19-30.	3.6	19
53	A modelling-based assessment of suspended sediment transport related to new damming in the Red River basin from 2000 to 2013. Catena, 2021, 197, 104958.	5.0	19
54	The MAELIA Multi-Agent Platform for Integrated Analysis of Interactions Between Agricultural Land-Use and Low-Water Management Strategies. Lecture Notes in Computer Science, 2014, , 85-100.	1.3	19

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55	The role of the hyporheic zone in the nitrogen dynamics of a semiâ€arid gravel bed stream located downstream of a heavily polluted reservoir (Tafna wadi, Algeria). River Research and Applications, 2008, 24, 183-196.	1.7	18
56	Using Modeling Tools to Better Understand Permafrost Hydrology. Water (Switzerland), 2017, 9, 418.	2.7	18
57	Water balance assessment of an ungauged area in Poyang Lake watershed using a spatially distributed runoff coefficient model. Journal of Hydroinformatics, 2018, 20, 1009-1024.	2.4	18
58	ASSESSING THE CLIMATE FORECAST SYSTEM REANALYSIS WEATHER DATA DRIVEN HYDROLOGICAL MODEL FOR THE YANGTZE RIVER BASIN IN CHINA. Applied Ecology and Environmental Research, 2019, 17, 3615-3632.	0.5	18
59	A simple multi-criteria approach to delimitate nitrate attenuation zones in alluvial floodplains. Four cases in south-western Europe. Ecological Engineering, 2017, 103, 315-331.	3.6	17
60	Total water storage variability from GRACE mission and hydrological models for a 50,000 km2 temperate watershed: the Garonne River basin (France). Journal of Hydrology: Regional Studies, 2019, 24, 100609.	2.4	17
61	Coevolution of Hydrological Cycle Components under Climate Change: The Case of the Garonne River in France. Water (Switzerland), 2018, 10, 1870.	2.7	16
62	A Modeling Approach to Diagnose the Impacts of Global Changes on Discharge and Suspended Sediment Concentration within the Red River Basin. Water (Switzerland), 2019, 11, 958.	2.7	16
63	Estimation of the Climate Change Impact on the Hydrological Balance in Basins of South-Central Chile. Water (Switzerland), 2021, 13, 794.	2.7	16
64	A numerical tool to integrate biophysical diversity of a large regulated river: hydrobiogeochemical bases. The case of the Garonne River (France). River Research and Applications, 2003, 19, 181-198.	1.7	15
65	Modelling of trace metal transfer in a large river under different hydrological conditions (the) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.5	15
66	Macroinvertebrate community traits and nitrate removal in stream sediments. Freshwater Biology, 2017, 62, 929-944.	2.4	15
67	Role of biodiversity in the biogeochemical processes at the water-sediment interface of macroporous river bed: An experimental approach. Ecological Engineering, 2017, 103, 385-393.	3.6	14
68	Influence of nontrophic interactions between benthic invertebrates on river sediment processes: a microcosm study. Canadian Journal of Fisheries and Aquatic Sciences, 2004, 61, 1817-1831.	1.4	13
69	Assessment of ecological function indicators related to nitrate under multiple human stressors in a large watershed. Ecological Indicators, 2020, 111, 106016.	6.3	13
70	Hydrological Alteration Index as an Indicator of the Calibration Complexity of Water Quantity and Quality Modeling in the Context of Global Change. Water (Switzerland), 2020, 12, 115.	2.7	13
71	Temporal Dynamics of River Biofilm in Constant Flows: A Case Study in a Riverside Laboratory Flume. International Review of Hydrobiology, 2010, 95, 156-170.	0.9	12
72	Role of the hyporheic heterotrophic biofilm on transformation and toxicity of pesticides. Annales De Limnologie, 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. Biogeochemistry, 2020, 149, 317-336.	3.5	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. Annales De Limnologie, 2015, 51, 23-35.	0.6	11
75	Does land use impact on groundwater invertebrate diversity and functionality in floodplains?. Ecological Engineering, 2017, 103, 394-403.	3.6	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.	2.7	11
77	Global-scale daily riverine DOC fluxes from lands to the oceans with a generic model. Global and Planetary Change, 2020, 194, 103294.	3.5	11
78	Role of Local Flow Conditions in River Biofilm Colonization and Early Growth. River Research and Applications, 2015, 31, 350-367.	1.7	10
79	Assessing the Climatic and Temporal Transposability of the SWAT Model across a Large Contrasted Watershed. Journal of Hydrologic Engineering - ASCE, 2017, 22, .	1.9	9
80	Integrated Effects of Land Use and Topography on Streamflow Response to Precipitation in an Agriculture-Forest Dominated Northern Watershed. Water (Switzerland), 2018, 10, 633.	2.7	9
81	A model for evaluating continental chemical weathering from riverine transports of dissolved major elements at a global scale. Global and Planetary Change, 2020, 192, 103226.	3.5	9
82	Denitrification and associated nitrous oxide and carbon dioxide emissions from the Amazonian wetlands. Biogeosciences, 2020, 17, 4297-4311.	3.3	9
83	A mass-balance approach to estimate in-stream processes in a large river. Hydrological Processes, 2008, 22, 420-428.	2.6	8
84	Assessing potassium environmental losses from a dairy farming watershed with the modified SWAT model. Agricultural Water Management, 2016, 175, 91-104.	5.6	8
85	On modeling chronic detachment of periphyton in artificial rough, open channel flow. Desalination and Water Treatment, 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. Annales De Limnologie, 2015, 51, 59-70.	0.6	7
87	Development and applications of the SWAT model to support sustainable river basin management on different scales. Sustainability of Water Quality and Ecology, 2016, 8, 1-3.	2.0	7
88	Floodplain capacity to depollute water in relation to the structure of biological communities. Ecological Engineering, 2017, 103, 301-314.	3.6	7
89	Using SWAT-LUD Model to Estimate the Influence of Water Exchange and Shallow Aquifer Denitrification on Water and Nitrate Flux. Water (Switzerland), 2018, 10, 528.	2.7	6
90	A modelling approach to quantify the influence of fine sediment deposition on biogeochemical processes occurring in the hyporheic zone. Annales De Limnologie, 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. Hydrology Research, 2017, 48, 1730-1744.	2.7	5
92	Long-term and event-scale sub-daily streamflow and sediment simulation in a small forested catchment. Hydrological Sciences Journal, 2021, 66, 862-873.	2.6	5
93	Sediment Balance Estimation of the â€˜Cuvette Centraleâ€™ of the Congo River Basin Using the SWAT Hydrological Model. Water (Switzerland), 2021, 13, 1388.	2.7	5
94	Density Effect of Eisenia sp. Epigeic Earthworms on the Hydraulic Conductivity of Sand Filters for Wastewater Treatment. Water (Switzerland), 2022, 14, 1048.	2.7	5
95	Assessment of suspended sediment load variability in the Tonle Sap and Lower Mekong Rivers, Cambodia. Catena, 2021, 202, 105291.	5.0	4
96	Multiobjective optimization of eco-industrial parks: evaluation of environmental impacts at the watershed scale. Computer Aided Chemical Engineering, 2018, 43, 67-72.	0.5	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). Ecological Indicators, 2020, 117, 106608.	6.3	2
98	SWATLitho: A hydrogeochemical model to estimate daily geochemical loads at the catchment scale. Environmental Modelling and Software, 2021, 135, 104893.	4.5	2
99	Spatio-temporal trends of hydrological components: the case of the Tafna basin (northwestern) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.9	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). International Journal of Global Warming, 2021, 23, 58.	0.5	2
101	Evolution of N-balance with qualitative expert evaluation approach. Journal of Environmental Management, 2021, 291, 112713.	7.8	1
102	Accounting for flow intermittence in freshwater species distribution modelling. Ecohydrology, 2021, 14, e2346.	2.4	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. Space Sciences Series of ISSI, 2016, , 33-57.	0.0	1
104	Assessment of Water Quality Regulation Functions in Southwestern Europe Watersheds. Water (Switzerland), 2021, 13, 2980.	2.7	1
105	Modeling environmental services in rivers at catchment scale. Annales De Limnologie, 2015, 51, A1-A2.	0.6	1