Ann van Griensven

List of Publications by Year
in descending order

71 papers	4,432 citations	147801 31 h-index	106344 65 g-index
73 all docs	73 docs citations	73 times ranked	4932 citing authors

#	Article	IF	Citations
1	A global sensitivity analysis tool for the parameters of multi-variable catchment models. Journal of Hydrology, 2006, 324, 10-23.	5.4	980
2	Sediment management modelling in the Blue Nile Basin using SWAT model. Hydrology and Earth System Sciences, 2011, 15, 807-818.	4.9	308
3	Evaluation of sources of uncertainty in projected hydrological changes under climate change in 12 large-scale river basins. Climatic Change, 2017, 141, 419-433.	3.6	192
4	Sensitivity analysis for hydrology and pesticide supply towards the river in SWAT. Physics and Chemistry of the Earth, 2005, 30, 518-526.	2.9	190
5	Methods to quantify and identify the sources of uncertainty for river basin water quality models. Water Science and Technology, 2006, 53, 51-59.	2.5	176
6	Autocalibration in hydrologic modeling: Using SWAT2005 in small-scale watersheds. Environmental Modelling and Software, 2008, 23, 422-434.	4.5	156
7	Impact of climate change on sediment yield in the Mekong River basin: a case study of the Nam Ou basin, Lao PDR. Hydrology and Earth System Sciences, 2013, 17, 1-20.	4.9	156
8	Critical review of SWAT applications in the upper Nile basin countries. Hydrology and Earth System Sciences, 2012, 16, 3371-3381.	4.9	136
9	Land suitability analysis for agriculture in the Abbay basin using remote sensing, GIS and AHP techniques. Modeling Earth Systems and Environment, 2016, 2, 1.	3.4	112
10	Intercomparison of regional-scale hydrological models and climate change impacts projected for 12 large river basins worldwideâ€"a synthesis. Environmental Research Letters, 2017, 12, 105002.	5.2	109
11	A critical comparison of systematic calibration protocols for activated sludge models: A SWOT analysis. Water Research, 2005, 39, 2459-2474.	11.3	108
12	Comparison of the Performance of Six Drought Indices in Characterizing Historical Drought for the Upper Blue Nile Basin, Ethiopia. Geosciences (Switzerland), 2018, 8, 81.	2.2	108
13	A global and efficient multi-objective auto-calibration and uncertainty estimation method for water quality catchment models. Journal of Hydroinformatics, 2007, 9, 277-291.	2.4	105
14	New challenges in integrated water quality modelling. Hydrological Processes, 2010, 24, 3447-3461.	2.6	105
15	A comparison of changes in river runoff from multiple global and catchment-scale hydrological models under global warming scenarios of 1ÂÂ°C, 2ÂÂ°C and 3ÂÂ°C. Climatic Change, 2017, 141, 577-595.	3.6	104
16	Future hydrology and climate in the River Nile basin: a review. Hydrological Sciences Journal, 2011, 56, 199-211.	2.6	98
17	Evaluation of streamflow simulation by SWAT model for two small watersheds under snowmelt and rainfall. Hydrological Sciences Journal, 2008, 53, 961-976.	2.6	78
18	Smart renewable electricity portfolios in West Africa. Nature Sustainability, 2020, 3, 710-719.	23.7	66

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19	A study of the climate change impacts on fluvial flood propagation in the Vietnamese Mekong Delta. Hydrology and Earth System Sciences, 2012, 16, 4637-4649.	4.9	62
20	OpenMI-based integrated sediment transport modelling of the river Zenne, Belgium. Environmental Modelling and Software, 2013, 47, 193-206.	4.5	57
21	A distributed monthly water balance model: formulation and application on Black Volta Basin. Environmental Earth Sciences, 2017, 76, 1.	2.7	56
22	Modifications to the SWAT code for modelling direct pesticide losses. Environmental Modelling and Software, 2008, 23, 72-81.	4.5	53
23	Evaluation and Application of Multi-Source Satellite Rainfall Product CHIRPS to Assess Spatio-Temporal Rainfall Variability on Data-Sparse Western Margins of Ethiopian Highlands. Remote Sensing, 2019, 11, 2688.	4.0	51
24	Identifying erosion hotspots in Lake Tana Basin from a multisite Soil and Water Assessment Tool validation: Opportunity for land managers. Land Degradation and Development, 2019, 30, 1449-1467.	3.9	47
25	Calibration of Spatially Distributed Hydrological Processes and Model Parameters in SWAT Using Remote Sensing Data and an Auto-Calibration Procedure: A Case Study in a Vietnamese River Basin. Water (Switzerland), 2018, 10, 212.	2.7	44
26	Distributed computation of large scale SWAT models on the Grid. Environmental Modelling and Software, 2013, 41, 223-230.	4.5	43
27	Fit-for-purpose analysis of uncertainty using split-sampling evaluations. Hydrological Sciences Journal, 2008, 53, 1090-1103.	2.6	42
28	Spatialâ€“temporal variability in water quality and macro-invertebrate assemblages in the Upper Mara River basin, Kenya. Physics and Chemistry of the Earth, 2014, 67-69, 93-104.	2.9	42
29	Spatio-temporal assessment of meteorological drought under the influence of varying record length: the case of Upper Blue Nile Basin, Ethiopia. Hydrological Sciences Journal, 0, , 1-16.	2.6	39
30	Effect of Single and Multisite Calibration Techniques on the Parameter Estimation, Performance, and Output of a SWAT Model of a Spatially Heterogeneous Catchment. Journal of Hydrologic Engineering - ASCE, 2017, 22, .	1.9	39
31	Evapotranspiration Mapping in a Heterogeneous Landscape Using Remote Sensing and Global Weather Datasets: Application to the Mara Basin, East Africa. Remote Sensing, 2017, 9, 390.	4.0	37
32	Quantification and characterization of glyphosate use and loss in a residential area. Science of the Total Environment, 2015, 517, 207-214.	8.0	35
33	Application and evaluation of ESWAT on the Dender basin and the Wister Lake basin. Hydrological Processes, 2005, 19, 827-838.	2.6	32
34	Modelling the Effectiveness of Agricultural Measures to Reduce the Amount of Pesticides Entering Surface Waters. Water Resources Management, 2007, 21, 2027-2035.	3.9	32
35	SWAT developments and recommendations for modelling agricultural pesticide mitigation measures in river basins. Hydrological Sciences Journal, 2008, 53, 1075-1089.	2.6	31
36	Sediment related impacts of climate change and reservoir development in the Lower Mekong River Basin: a case study of the Nam Ou Basin, Lao PDR. Climatic Change, 2018, 149, 13-27.	3.6	31

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37	Evaluating CFSR and WATCH Data as Input to SWAT for the Estimation of the Potential Evapotranspiration in a Data-Scarce Eastern-African Catchment. Journal of Hydrologic Engineering - ASCE, 2016, 21, .	1.9	29
38	Water Erosion Monitoring and Prediction in Response to the Effects of Climate Change Using RUSLE and SWAT Equations: Case of Râ€™Dom Watershed in Morocco. Land, 2022, 11, 93.	2.9	24
39	Environmental and ecological hydroinformatics to support the implementation of the European Water Framework Directive for river basin management. Journal of Hydroinformatics, 2006, 8, 239-252.	2.4	23
40	Downscaling technique uncertainty in assessing hydrological impact of climate change in the Upper Beles River Basin, Ethiopia. Hydrology Research, 2013, 44, 377-398.	2.7	23
41	Application of Automated Measurement Stations for Continuous Water Quality Monitoring of the Dender River in Flanders, Belgium. Environmental Monitoring and Assessment, 2005, 108, 85-98.	2.7	19
42	Comparison of sediment transport computations using hydrodynamic versus hydrologic models in the Simiyu River in Tanzania. Physics and Chemistry of the Earth, 2013, 61-62, 12-21.	2.9	19
43	Modelling sediment and total phosphorus export from a lowland catchment: comparing sediment routing methods. Hydrological Processes, 2015, 29, 280-294.	2.6	18
44	Comparison of flood management options for the Yang River Basin, Thailand. Irrigation and Drainage, 2011, 60, 526-543.	1.7	17
45	Multiobjective Calibration for Comparing Channel Sediment Routing Models in the Soil and Water Assessment Tool. Journal of Environmental Quality, 2014, 43, 110-120.	2.0	17
46	User-friendly workflows for catchment modelling: Towards reproducible SWAT+ model studies. Environmental Modelling and Software, 2020, 134, 104812.	4.5	17
47	Model-Based Evaluation of Land Management Strategies with Regard to Multiple Ecosystem Services. Sustainability, 2018, 10, 3844.	3.2	15
48	Impact of measurement error and limited data frequency on parameter estimation and uncertainty quantification. Environmental Modelling and Software, 2019, 118, 35-47.	4.5	15
49	Comparison and Evaluation of Model Structures for the Simulation of Pollution Fluxes in a Tile-Drained River Basin. Journal of Environmental Quality, 2014, 43, 86-99.	2.0	13
50	Modelling Escherichia coli dynamics in the river Zenne (Belgium) using an OpenMI based integrated model. Journal of Hydroinformatics, 2014, 16, 354-374.	2.4	12
51	Integrating spatial and social characteristics in the DPSIR framework for the sustainable management of river basins: case study of the Katari River Basin, Bolivia. Water International, 2022, 47, 8-29.	1.0	10
52	Evaluation and application of alternative rainfall data sources for forcing hydrologic models in the Mara Basin. Hydrology Research, 2018, 49, 1271-1282.	2.7	9
53	Evaluating Probability Distribution Functions for the Standardized Precipitation Evapotranspiration Index over Ethiopia. Atmosphere, 2022, 13, 364.	2.3	9
54	Characterizing Climate Model Uncertainty Using an Informal Bayesian Framework: Application to the River Nile. Journal of Hydrologic Engineering - ASCE, 2013, 18, 582-589.	1.9	8

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55	Modeling and Prioritizing Interventions Using Pollution Hotspots for Reducing Nutrients, Atrazine and E. coli Concentrations in a Watershed. Sustainability, 2021, 13, 103.	3.2	8
56	Effect of temporal resolution of water level and temperature inputs on numerical simulation of groundwaterâ€“surface water flux exchange in a heavily modified urban river. Hydrological Processes, 2013, 27, 1634-1645.	2.6	7
57	Water Resources Studies in Headwaters of the Blue Nile Basin: A Review with Emphasis on Lake Water Balance and Hydrogeological Characterization. Water (Switzerland), 2021, 13, 1469.	2.7	6
58	Land Cover Change and Water Quality: How Remote Sensing Can Help Understand Driverâ€“Impact Relations in the Lake Titicaca Basin. Water (Switzerland), 2022, 14, 1021.	2.7	6
59	A new unconditionally stable and consistent quasiâ€analytical inâ€stream water quality solution scheme for <scp>C</scp>STRâ€based water quality simulators. Water Resources Research, 2017, 53, 4668-4690.	4.2	5
60	Explicit incipient motion of cohesive and nonâ€cohesive sediments using simple hydraulics. Depositional Record, 2018, 4, 78-89.	1.7	5
61	WetSpa-Urban: An Adapted Version of WetSpa-Python, A Suitable Tool for Detailed Runoff Calculation in Urban Areas. Water (Switzerland), 2019, 11, 2460.	2.7	5
62	A fast and effective parameterization of water quality models. Environmental Modelling and Software, 2022, 149, 105331.	4.5	5
63	Effect of different river water quality model concepts used for river basin management decisions. Water Science and Technology, 2006, 53, 277-284.	2.5	4
64	On numerical solver selection and related uncertainty terminology. Journal of Hydroinformatics, 2010, 12, 241-250.	2.4	4
65	The CatchMod toolbox: easy and guided access to ICT tools for Water Framework Directive implementation. Water Science and Technology, 2006, 53, 285-292.	2.5	3
66	Hysteresis and parent-metabolite analyses unravel characteristic pesticide transport mechanisms in a mixed land use catchment. Water Research, 2017, 124, 663-672.	11.3	3
67	Automatic Proba-V Processor: TREXâ€"Tool for Raster Data Exploration. Remote Sensing, 2019, 11, 2538.	4.0	3
68	On the Calibration of Spatially Distributed Hydrologic Models for Poorly Gauged Basins: Exploiting Information from Streamflow Signatures and Remote Sensing-Based Evapotranspiration Data. Water (Switzerland), 2022, 14, 1252.	2.7	3
69	MÃ©thodologie pour lâ€™adaptation de donnÃ©es physiographiques canadiennes au modÃ¨le de qualitÃ© de lâ€™eau SWAT Â« soil water assessment tool Â». Journal of Environmental Engineering and Science, 2008, 7, 453-466.	0.8	2
70	A heuristic probabilistic approach to estimating size-dependent mobility of nonuniform sediment. Stochastic Environmental Research and Risk Assessment, 2018, 32, 1771-1782.	4.0	2
71	Reply to: Comment on â€œA critical comparison of systematic calibration protocols for activated sludge models: A SWOT analysisâ€. Water Research, 2006, 40, 2994-2996.	11.3	1