

# Thomas Wãhling

## List of Publications by Year in descending order

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Version: 2024-02-01

51  
papers

2,038  
citations

304743

22  
h-index

243625

44  
g-index

76  
all docs

76  
docs citations

76  
times ranked

2659  
citing authors

#	ARTICLE	IF	CITATIONS
1	Diagnosis of Model Errors With a Sliding Time-Window Bayesian Analysis. <i>Water Resources Research</i> , 2022, 58, .	4.2	7
2	Lumped geohydrological modelling for long-term predictions of groundwater storage and depletion. <i>Journal of Hydrology</i> , 2022, 606, 127347.	5.4	5
3	Tracing lateral subsurface flow in layered soils by undisturbed monolith sampling, targeted laboratory experiments, and model-based analysis. <i>Vadose Zone Journal</i> , 2022, 21, .	2.2	2
4	Multi-model evaluation of phenology prediction for wheat in Australia. <i>Agricultural and Forest Meteorology</i> , 2021, 298-299, 108289.	4.8	17
5	How well do crop modeling groups predict wheat phenology, given calibration data from the target population?. <i>European Journal of Agronomy</i> , 2021, 124, 126195.	4.1	27
6	Robust Data Worth Analysis with Surrogate Models. <i>Ground Water</i> , 2021, 59, 728-744.	1.3	4
7	Karst modelling challenge 1: Results of hydrological modelling. <i>Journal of Hydrology</i> , 2021, 600, 126508.	5.4	31
8	The chaos in calibrating crop models: Lessons learned from a multi-model calibration exercise. <i>Environmental Modelling and Software</i> , 2021, 145, 105206.	4.5	31
9	Evaluating Subsurface Parameterization to Simulate Hyporheic Exchange: The Steinlach River Test Site. <i>Ground Water</i> , 2020, 58, 93-109.	1.3	5
10	Detecting the cause of change using uncertain data: Natural and anthropogenic factors contributing to declining groundwater levels and flows of the Wairau Plain aquifer, New Zealand. <i>Journal of Hydrology: Regional Studies</i> , 2020, 31, 100715.	2.4	7
11	Eigenmodels to forecast groundwater levels in unconfined river-fed aquifers during flow recession. <i>Science of the Total Environment</i> , 2020, 747, 141220.	8.0	7
12	Sensitivity of Simulated Hyporheic Exchange to River Bathymetry: The Steinlach River Test Site. <i>Ground Water</i> , 2019, 57, 378-391.	1.3	14
13	An Electron-Balance Based Approach to Predict the Decreasing Denitrification Potential of an Aquifer. <i>Ground Water</i> , 2019, 57, 925-939.	1.3	4
14	Simplification error analysis for groundwater predictions with reduced order models. <i>Advances in Water Resources</i> , 2019, 125, 41-56.	3.8	24
15	A Primer for Model Selection: The Decisive Role of Model Complexity. <i>Water Resources Research</i> , 2018, 54, 1688-1715.	4.2	71
16	Accounting for the Decreasing Reaction Potential of Heterogeneous Aquifers in a Stochastic Framework of Aquifer-Scale Reactive Transport. <i>Water Resources Research</i> , 2018, 54, 442-463.	4.2	14
17	Quantifying River-Groundwater Interactions of New Zealand's Gravel-Bed Rivers: The Wairau Plain. <i>Ground Water</i> , 2018, 56, 647-666.	1.3	19
18	Explicit treatment for Dirichlet, Neumann and Cauchy boundary conditions in POD-based reduction of groundwater models. <i>Advances in Water Resources</i> , 2018, 115, 160-171.	3.8	18

#	ARTICLE	IF	CITATIONS
19	Predicting nitrate discharge dynamics in mesoscale catchments using the lumped StreamGEM model and Bayesian parameter inference. <i>Journal of Hydrology</i> , 2017, 552, 684-703.	5.4	12
20	Using an integrated hydrological model to estimate the usefulness of meteorological drought indices in a changing climate. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 4159-4175.	4.9	5
21	Optimal Design of Multitype Groundwater Monitoring Networks Using Easily Accessible Tools. <i>Ground Water</i> , 2016, 54, 861-870.	1.3	21
22	Modeling Soil Processes: Review, Key Challenges, and New Perspectives. <i>Vadose Zone Journal</i> , 2016, 15, 1-57.	2.2	445
23	Cumulative relative reactivity: A concept for modeling aquifer-scale reactive transport. <i>Water Resources Research</i> , 2016, 52, 8117-8137.	4.2	21
24	Revisiting hydraulic hysteresis based on long-term monitoring of hydraulic states in lysimeters. <i>Water Resources Research</i> , 2016, 52, 3847-3865.	4.2	20
25	Uncertainty in the modelling of spatial and temporal patterns of shallow groundwater flow paths: The role of geological and hydrological site information. <i>Journal of Hydrology</i> , 2016, 534, 680-694.	5.4	22
26	A statistical concept to assess the uncertainty in Bayesian model weights and its impact on model ranking. <i>Water Resources Research</i> , 2015, 51, 7524-7546.	4.2	30
27	Bayesian model averaging to explore the worth of data for soil-plant model selection and prediction. <i>Water Resources Research</i> , 2015, 51, 2825-2846.	4.2	43
28	Finding the right balance between groundwater model complexity and experimental effort via Bayesian model selection. <i>Journal of Hydrology</i> , 2015, 531, 96-110.	5.4	41
29	Sorption and transformation of the reactive tracers resazurin and resorufin in natural river sediments. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 3151-3163.	4.9	20
30	Model selection on solid ground: Rigorous comparison of nine ways to evaluate Bayesian model evidence. <i>Water Resources Research</i> , 2014, 50, 9484-9513.	4.2	107
31	Incorporating dynamic root growth enhances the performance of Noah-MP at two contrasting winter wheat field sites. <i>Water Resources Research</i> , 2014, 50, 1337-1356.	4.2	47
32	Catchments as reactors: a comprehensive approach for water fluxes and solute turnover. <i>Environmental Earth Sciences</i> , 2013, 69, 317-333.	2.7	71
33	Assessing hyporheic exchange and associated travel times by hydraulic, chemical, and isotopic monitoring at the Steinlach Test Site, Germany. <i>Environmental Earth Sciences</i> , 2013, 69, 359-372.	2.7	17
34	Assessing the relevance of subsurface processes for the simulation of evapotranspiration and soil moisture dynamics with CLM3.5: comparison with field data and crop model simulations. <i>Environmental Earth Sciences</i> , 2013, 69, 415-427.	2.7	36
35	Towards Optimizing Experiments for Maximum-confidence Model Selection between Different Soil-plant Models. <i>Procedia Environmental Sciences</i> , 2013, 19, 514-523.	1.4	8
36	Evaluating multiple performance criteria to calibrate the distributed hydrological model of the upper Neckar catchment. <i>Environmental Earth Sciences</i> , 2013, 69, 453-468.	2.7	49

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37	Concurrent conservative and reactive tracer tests in a stream undergoing hyporheic exchange. <i>Water Resources Research</i> , 2013, 49, 3024-3037.	4.2	41
38	Characterizing Disturbed Desert Soils Using Multiobjective Parameter Optimization. <i>Vadose Zone Journal</i> , 2013, 12, 1-23.	2.2	13
39	Multiresponse, multiobjective calibration as a diagnostic tool to compare accuracy and structural limitations of five coupled soil-plant models and CLM3.5. <i>Water Resources Research</i> , 2013, 49, 8200-8221.	4.2	40
40	Dual-tracer, non-equilibrium mixing cell modelling and uncertainty analysis for unsaturated bromide and chloride transport. <i>Journal of Contaminant Hydrology</i> , 2012, 140-141, 150-163.	3.3	18
41	Analytical Model of Surface Flow on Hillslopes Based on the Zero Inertia Equations. <i>Journal of Hydraulic Engineering</i> , 2012, 138, 391-399.	1.5	3
42	Multiresponse multilayer vadose zone model calibration using Markov chain Monte Carlo simulation and field water retention data. <i>Water Resources Research</i> , 2011, 47, .	4.2	87
43	Automated Equilibrium Tension Lysimeters for Measuring Water Fluxes through a Layered, Volcanic Vadose Profile in New Zealand. <i>Vadose Zone Journal</i> , 2011, 10, 747-759.	2.2	25
44	Coupled simulation of surface runoff and soil water flow using multi-objective parameter estimation. <i>Journal of Hydrology</i> , 2011, 403, 141-156.	5.4	33
45	Percolation losses in paddy fields with a dynamic soil structure: model development and applications. <i>Hydrological Processes</i> , 2010, 24, 813-824.	2.6	23
46	Efficient regularization and uncertainty analysis using a global optimization methodology. <i>Water Resources Research</i> , 2010, 46, .	4.2	36
47	Modeling of Nonequilibrium Bromide Transport through Alluvial Gravel Vadose Zones. <i>Vadose Zone Journal</i> , 2010, 9, 731-746.	2.2	13
48	Three-dimensional Modeling of Multiple Automated Equilibrium Tension Lysimeters to Measure Vadose Zone Fluxes. <i>Vadose Zone Journal</i> , 2009, 8, 1051-1063.	2.2	24
49	Inverse Modeling of Subsurface Flow and Transport Properties: A Review with New Developments. <i>Vadose Zone Journal</i> , 2008, 7, 843-864.	2.2	188
50	Combining multiobjective optimization and Bayesian model averaging to calibrate forecast ensembles of soil hydraulic models. <i>Water Resources Research</i> , 2008, 44, .	4.2	57
51	Comparison of Three Multiobjective Optimization Algorithms for Inverse Modeling of Vadose Zone Hydraulic Properties. <i>Soil Science Society of America Journal</i> , 2008, 72, 305-319.	2.2	105