

# Niels SchÃ¼tze

## List of Publications by Year in descending order

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42  
papers

692  
citations

567144

15  
h-index

610775

24  
g-index

53  
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53  
docs citations

53  
times ranked

832  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of Crop Models for Simulating and Optimizing Deficit Irrigation Systems in Arid and Semi-arid Countries Under Climate Variability. <i>Water Resources Management</i> , 2012, 26, 997-1014.	1.9	52
2	Towards an integrated arid zone water management using simulation-based optimisation. <i>Environmental Earth Sciences</i> , 2012, 65, 1381-1394.	1.3	51
3	Analysis of AET and yield predictions under surface and buried drip irrigation systems using the Crop Model PILOTE and Hydrus-2D. <i>Agricultural Water Management</i> , 2011, 98, 1033-1044.	2.4	41
4	OCCASION: New Planning Tool for Optimal Climate Change Adaption Strategies in Irrigation. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 2010, 136, 836-846.	0.6	40
5	Novel simulation-based algorithms for optimal open-loop and closed-loop scheduling of deficit irrigation systems. <i>Journal of Hydroinformatics</i> , 2012, 14, 136-151.	1.1	34
6	New Strategy for Optimizing Water Application under Trickle Irrigation. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 2002, 128, 287-297.	0.6	33
7	The chaos in calibrating crop models: Lessons learned from a multi-model calibration exercise. <i>Environmental Modelling and Software</i> , 2021, 145, 105206.	1.9	31
8	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.	1.9	27
9	Optimal planning and operation of irrigation systems under water resource constraints in Oman considering climatic uncertainty. <i>Environmental Earth Sciences</i> , 2012, 65, 1511-1521.	1.3	26
10	Automatic Model Structure Identification for Conceptual Hydrologic Models. <i>Water Resources Research</i> , 2020, 56, e2019WR027009.	1.7	25
11	Three-dimensional Modeling of Multiple Automated Equilibrium Tension Lysimeters to Measure Vadose Zone Fluxes. <i>Vadose Zone Journal</i> , 2009, 8, 1051-1063.	1.3	24
12	Field Evaluation of Irrigation Scheduling Strategies using a Mechanistic Crop Growth Model. <i>Irrigation and Drainage</i> , 2016, 65, 214-223.	0.8	22
13	Modelling the impact of drought and heat stress on common bean with two different photosynthesis model approaches. <i>Environmental Modelling and Software</i> , 2016, 81, 111-121.	1.9	22
14	Potential of Deficit and Supplemental Irrigation under Climate Variability in Northern Togo, West Africa. <i>Water (Switzerland)</i> , 2018, 10, 1803.	1.2	20
15	Impact of irrigation on plant growth and development of white cabbage. <i>Agricultural Water Management</i> , 2017, 187, 99-111.	2.4	19
16	Multi-model evaluation of phenology prediction for wheat in Australia. <i>Agricultural and Forest Meteorology</i> , 2021, 298-299, 108289.	1.9	17
17	An integrated approach to conceptualise hydrological and socio-economic interaction for supporting management decisions of coupled groundwater-agricultural systems. <i>Environmental Earth Sciences</i> , 2014, 72, 4917-4933.	1.3	16
18	Optimal Irrigation Scheduling, Irrigation Control and Drip Line Layout to Increase Water Productivity and Profit in Subsurface Drip-irrigated Agriculture. <i>Irrigation and Drainage</i> , 2015, 64, 501-518.	0.8	16

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19	A Serious Board Game to Analyze Socio-Ecological Dynamics towards Collaboration in Agriculture. Sustainability, 2020, 12, 5301.	1.6	15
20	A Fuzzy-Stochastic Modeling Approach for Multiple Criteria Decision Analysis of Coupled Groundwater-Agricultural Systems. Water Resources Management, 2016, 30, 2075-2095.	1.9	14
21	Portrayal of fuzzy recharge areas for water balance modelling – a case study in northern Oman. Advances in Geosciences, 0, 31, 1-7.	12.0	14
22	Self-organizing maps with multiple input-output option for modeling the Richards equation and its inverse solution. Water Resources Research, 2005, 41, .	1.7	13
23	Sustainable management of a coupled groundwater–agriculture hydrosystem using multi-criteria simulation based optimisation. Water Science and Technology, 2013, 67, 689-698.	1.2	13
24	Optimal groundwater management using state-space surrogate models: a case study for an arid coastal region. Journal of Hydroinformatics, 2016, 18, 666-686.	1.1	12
25	Investigation of deficit irrigation strategies combining SVAT-modeling, optimization and experiments. Environmental Earth Sciences, 2014, 72, 4901-4915.	1.3	10
26	Integrated water resources management under different hydrological, climatic and socio-economic conditions: results and lessons learned from a transdisciplinary IWRM project IWAS. Environmental Earth Sciences, 2014, 72, 4677-4687.	1.3	9
27	Simulation of Water-Use Efficiency of Crops under Different Irrigation Strategies. Water (Switzerland), 2020, 12, 2930.	1.2	9
28	Managing saltwater intrusion in coastal arid regions and its societal implications for agriculture. Proceedings of the International Association of Hydrological Sciences, 0, 373, 31-35.	1.0	9
29	Evaluation of Very High Soil-Water Tension Threshold Values in Sensor-Based Deficit Irrigation Systems. Journal of Irrigation and Drainage Engineering - ASCE, 2014, 140, .	0.6	8
30	Evaluation of Hydroclimatic Variability and Prospective Irrigation Strategies in the U.S. Corn Belt. Water (Switzerland), 2019, 11, 2447.	1.2	8
31	Estimation of Yield Response Factor for Each Growth Stage under Local Conditions Using AquaCrop-OS. Water (Switzerland), 2020, 12, 1080.	1.2	6
32	Water requirements for oil palm grown on marginal lands: A simulation approach. Agricultural Water Management, 2022, 260, 107292.	2.4	6
33	Determining crop-production functions using multi-objective evolutionary algorithms. , 2010, , .		5
34	Irrigation water demand of common bean on field and regional scale under varying climatic conditions. Meteorologische Zeitschrift, 2016, 25, 365-375.	0.5	4
35	Small-scale (flash) flood early warning in the light of operational requirements: opportunities and limits with regard to user demands, driving data, and hydrologic modeling techniques. Proceedings of the International Association of Hydrological Sciences, 0, 373, 201-208.	1.0	4
36	Towards an optimal integrated reservoir system management for the Awash River Basin, Ethiopia. Proceedings of the International Association of Hydrological Sciences, 0, 373, 215-219.	1.0	4

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37	Flash flood forecasting combining meteorological ensemble forecasts and uncertainty of initial hydrological conditions. Australian Journal of Water Resources, 2008, 12, 257-267.	1.6	3
38	EVALUATION OF THE TRANSFERABILITY OF A SVAT MODEL—RESULTS FROM FIELD AND GREENHOUSE APPLICATIONS. Irrigation and Drainage, 2011, 60, 59-70.	0.8	3
39	Multi-objective optimization of multi-purpose multi-reservoir systems under high reliability constraints. Environmental Earth Sciences, 2016, 75, 1.	1.3	2
40	Integrated management of water resources demand and supply in irrigated agriculture from plot to regional scale. Proceedings of the International Association of Hydrological Sciences, 0, 373, 51-55.	1.0	2
41	An economic-based estimation of irrigation water demand. WIT Transactions on Ecology and the Environment, 2014, , .	0.0	1
42	An Economic-Based Evaluation of Maize Production under Deficit and Supplemental Irrigation for Smallholder Farmers in Northern Togo, West Africa. Resources, 2019, 8, 175.	1.6	0