Xingyuan Chen

List of Publications by Year
in descending order

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60	1,467	331670 21	361022 35
papers	citations	h-index	g-index

81	81	81	1855
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Groundwater uptake by woody vegetation in a semiarid oak savanna. Water Resources Research, 2010, 46, .	4.2	163
2	Accelerated dryland expansion regulates future variability in dryland gross primary production. Nature Communications, 2020, 11, 1665.	12.8	158
3	A Bayesian approach for inverse modeling, data assimilation, and conditional simulation of spatial random fields. Water Resources Research, 2010, 46, .	4.2	70
4	Drought Conditions Maximize the Impact of Highâ€Frequency Flow Variations on Thermal Regimes and Biogeochemical Function in the Hyporheic Zone. Water Resources Research, 2018, 54, 7361-7382.	4.2	63
5	An Analysis Platform for Multiscale Hydrogeologic Modeling with Emphasis on Hybrid Multiscale Methods. Ground Water, 2015, 53, 38-56.	1.3	62
6	Observations and stochastic modeling of soil moisture control on evapotranspiration in a Californian oak savanna. Water Resources Research, 2008, 44, .	4.2	44
7	River stage influences on uranium transport in a hydrologically dynamic groundwaterâ€surface water transition zone. Water Resources Research, 2016, 52, 1568-1590.	4.2	42
8	A new process sensitivity index to identify important system processes under process model and parametric uncertainty. Water Resources Research, 2017, 53, 3476-3490.	4.2	41
9	Threeâ€dimensional Bayesian geostatistical aquifer characterization at the Hanford 300 Area using tracer test data. Water Resources Research, 2012, 48, .	4.2	40
10	Regulation-Structured Dynamic Metabolic Model Provides a Potential Mechanism for Delayed Enzyme Response in Denitrification Process. Frontiers in Microbiology, 2017, 8, 1866.	3.5	40
11	Dam Operations and Subsurface Hydrogeology Control Dynamics of Hydrologic Exchange Flows in a Regulated River Reach. Water Resources Research, 2019, 55, 2593-2612.	4.2	39
12	A novel approach to evaluate soil heat flux calculation: An analytical review of nine methods. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6934-6949.	3.3	38
13	Application of ensemble-based data assimilation techniques for aquifer characterization using tracer data at Hanford 300 area. Water Resources Research, 2013, 49, 7064-7076.	4.2	37
14	Fourâ€dimensional electrical conductivity monitoring of stageâ€driven river water intrusion: Accounting for water table effects using a transient mesh boundary and conditional inversion constraints. Water Resources Research, 2015, 51, 6177-6196.	4.2	33
15	A geostatisticsâ€informed hierarchical sensitivity analysis method for complex groundwater flow and transport modeling. Water Resources Research, 2017, 53, 4327-4343.	4.2	30
16	Integrated hydrogeophysical modelling and data assimilation for geoelectrical leak detection. Journal of Contaminant Hydrology, 2020, 234, 103679.	3.3	29
17	Representing Organic Matter Thermodynamics in Biogeochemical Reactions via Substrate-Explicit Modeling. Frontiers in Microbiology, 2020, 11, 531756.	3.5	27
18	Explore Spatioâ€Temporal Learning of Large Sample Hydrology Using Graph Neural Networks. Water Resources Research, 2021, 57, e2021WR030394.	4.2	27

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19	Coupling a three-dimensional subsurface flow and transport model with a land surface model to simulate streamâ€“aquiferâ€“land interactions (CPÂv1.0). Geoscientific Model Development, 2017, 10, 4539-4562.	3.6	25
20	Using Bayesian Networks for Sensitivity Analysis of Complex Biogeochemical Models. Water Resources Research, 2019, 55, 3541-3555.	4.2	23
21	Delineating Facies Spatial Distribution by Integrating Ensemble Data Assimilationand Indicator Geostatistics With Levelâ€Set Transformation. Water Resources Research, 2019, 55, 2652-2671.	4.2	22
22	Integrating field observations and process-based modeling to predict watershed water quality under environmental perturbations. Journal of Hydrology, 2021, 602, 125762.	5.4	22
23	PFLOTRAN-E4D: A parallel open source PFLOTRAN module for simulating time-lapse electrical resistivity data. Computers and Geosciences, 2017, 99, 72-80.	4.2	21
24	Groundwaterâ€River Water Exchange Enhances Growing Season Evapotranspiration and Carbon Uptake in a Semiarid Riparian Ecosystem. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 99-114.	3.0	21
25	Flexible and Modular Simultaneous Modeling of Flow and Reactive Transport in Rivers and Hyporheic Zones. Water Resources Research, 2020, 56, e2019WR026528.	4.2	21
26	Methane and nitrous oxide porewater concentrations and surface fluxes of a regulated river. Science of the Total Environment, 2020, 715, 136920.	8.0	20
27	Subsurface biogeochemistry is a missing link between ecology and hydrology in dam-impacted river corridors. Science of the Total Environment, 2019, 657, 435-445.	8.0	19
28	Kilometerâ€Scale Hydrologic Exchange Flows in a Gravel Bed River Corridor and Their Implications to Solute Migration. Water Resources Research, 2020, 56, e2019WR025258.	4.2	19
29	Riverbed Hydrologic Exchange Dynamics in a Large Regulated River Reach. Water Resources Research, 2018, 54, 2715-2730.	4.2	17
30	Mechanistic links between underestimated CO ₂ fluxes and non-closure of the surface energy balance in a semi-arid sagebrush ecosystem. Environmental Research Letters, 2019, 14, 044016.	5.2	16
31	Effects of Irrigation on Water, Carbon, and Nitrogen Budgets in a Semiarid Watershed in the Pacific Northwest: A Modeling Study. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001953.	3.8	15
32	Floodplain Inundation and Salinization From a Recently Restored Firstâ€Order Tidal Stream. Water Resources Research, 2020, 56, e2019WR026850.	4.2	15
33	Coupling surface flow with high-performance subsurface reactive flow and transport code PFLOTRAN. Environmental Modelling and Software, 2021, 137, 104959.	4.5	15
34	A multirate mass transfer model to represent the interaction of multicomponent biogeochemical processes between surface water and hyporheic zones (SWAT-MRMT-R 1.0). Geoscientific Model Development, 2020, 13, 3553-3569.	3.6	14
35	River Dynamics Control Transit Time Distributions and Biogeochemical Reactions in a Damâ€Regulated River Corridor. Water Resources Research, 2020, 56, e2019WR026470.	4.2	12
36	From legacy contamination to watershed systems science: a review of scientific insights and technologies developed through DOE-supported research in water and energy security. Environmental Research Letters, 2022, 17, 043004.	5.2	12

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37	A statistical method for estimating wood thermal diffusivity and probe geometry using in situ heat response curves from sap flow measurements. Tree Physiology, 2012, 32, 1458-1470.	3.1	11
38	Technical note: Using long short-term memory models to fill data gaps in hydrological monitoring networks. Hydrology and Earth System Sciences, 2022, 26, 1727-1743.	4.9	11
39	The effects of spatial and temporal resolution of gridded meteorological forcing on watershed hydrological responses. Hydrology and Earth System Sciences, 2022, 26, 2245-2276.	4.9	11
40	Estimating Watershed Subsurface Permeability From Stream Discharge Data Using Deep Neural Networks. Frontiers in Earth Science, 2021, 9, .	1.8	10
41	Using Ensemble Data Assimilation to Estimate Transient Hydrologic Exchange Flow Under Highly Dynamic Flow Conditions. Water Resources Research, 2022, 58, .	4.2	10
42	A new and inexpensive non-bit-for-bit solution reproducibility test based on time stepÂconvergence (TSC1.0). Geoscientific Model Development, 2017, 10, 537-552.	3.6	9
43	Soil respiration across aÂpermafrost transition zone: spatial structure and environmental correlates. Biogeosciences, 2017, 14, 4341-4354.	3.3	7
44	Temporal flow variations interact with spatial physical heterogeneity to impact solute transport in managed river corridors. Journal of Contaminant Hydrology, 2020, 235, 103713.	3.3	7
45	Enlarged Nonclosure of Surface Energy Balance With Increasing Atmospheric Instabilities Linked to Changes in Coherent Structures. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032889.	3.3	6
46	Impact of Vegetation Physiology and Phenology on Watershed Hydrology in a Semiarid Watershed in the Pacific Northwest in a Changing Climate. Water Resources Research, 2021, 57, e2020WR028394.	4.2	6
47	Groundwater Regulates Interannual Variations in Evapotranspiration in a Riparian Semiarid Ecosystem. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033078.	3.3	6
48	DART-PFLOTRAN: An ensemble-based data assimilation system for estimating subsurface flow and transport model parameters. Environmental Modelling and Software, 2021, 142, 105074.	4.5	6
49	A strategy for improved computational efficiency of the method of anchored distributions. Water Resources Research, 2013, 49, 3257-3275.	4.2	5
50	Hierarchical sensitivity analysis for simulating barrier island geomorphologic responses to future storms and sea-level rise. Theoretical and Applied Climatology, 2019, 136, 1495-1511.	2.8	3
51	Uncertainties in Turbulent Statistics and Fluxes of CO 2 Associated With Density Effect Corrections. Geophysical Research Letters, 2020, 47, e2020GL088859.	4.0	3
52	Guidelines for Publicly Archiving Terrestrial Model Data to Enhance Usability, Intercomparison, and Synthesis. Data Science Journal, 2022, 21, 3.	1.3	3
53	Process Interactions Can Change Process Ranking in a Coupled Complex System Under Process Model and Parametric Uncertainty. Water Resources Research, 2022, 58, .	4.2	3
54	High-Performance Simulation of Dynamic Hydrologic Exchange and Implications for Surrogate Flow and Reactive Transport Modeling in a Large River Corridor. Frontiers in Water, 2020, 2, .	2.3	2

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55	Groundwater Inflows to the Columbia River Along the Hanford Reach and Associated Nitrate Concentrations. Frontiers in Water, 2021, 3, .	2.3	2
56	Understanding Contaminant Migration Within a Dynamic River Corridor Through Field Experiments and Reactive Transport Modeling. Frontiers in Water, 2020, 2, .	2.3	2
57	A novel construct for scaling groundwaterâ€“river interactions based on machine-guided hydromorphic classification. Environmental Research Letters, 2021, 16, 104016.	5.2	1
58	Hierarchical sensitivity analysis for a large-scale process-based hydrological model applied to an Amazonian watershed. Hydrology and Earth System Sciences, 2020, 24, 4971-4996.	4.9	1
59	Can Simple Machine Learning Tools Extend and Improve Temperature-Based Methods to Infer Streambed Flux?. Water (Switzerland), 2021, 13, 2837.	2.7	0
60	Identification of Characteristic Spatial Scales to Improve the Performance of Analytical Spectral Solutions to the Groundwater Flow Equation. Water Resources Research, 2021, 57, .	4.2	0