Z Jason Hou

List of Publications by Year
in descending order

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		331538	345118
99	1,633	21	36
papers	citations	h-index	g-index

109	109	109	1995
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling framework for evaluating the impacts of hydrodynamic pressure on hydrologic exchange fluxes and residence time for a large-scale river section over a long-term period. Environmental Modelling and Software, 2022, 148, 105277.	1.9	2
2	Datasets for characterizing extreme events relevant to hydrologic design over the conterminous United States. Scientific Data, 2022, 9, 154.	2.4	5
3	Modeling of streamflow in a 30â€‰km long reach spanning 5 years using OpenFOAM 5.x. Geoscientific Model Development, 2022, 15, 2917-2947.	1.3	4
4	Inverse Modeling of Hydrologic Parameters in CLM4 via Generalized Polynomial Chaos in the Bayesian Framework. Computation, 2022, 10, 72.	1.0	1
5	Smart Sampling for Reduced and Representative Power System Scenario Selection. IEEE Open Access Journal of Power and Energy, 2021, 8, 293-302.	2.5	6
6	Machine Learning Analysis of Hydrologic Exchange Flows and Transit Time Distributions in a Large Regulated River. Frontiers in Artificial Intelligence, 2021, 4, 648071.	2.0	10
7	Deep Learning for Automated Detection and Identification of Migrating American Eel Anguilla rostrata from Imaging Sonar Data. Remote Sensing, 2021, 13, 2671.	1.8	16
8	Scale-dependent spatial variabilities of hydrological exchange flows and transit time in a large regulated river. Journal of Hydrology, 2021, 598, 126283.	2.3	3
9	A novel construct for scaling groundwaterâ€“river interactions based on machine-guided hydromorphic classification. Environmental Research Letters, 2021, 16, 104016.	2.2	1
10	Improving prediction of surface solar irradiance variability by integrating observed cloud characteristics and machine learning. Solar Energy, 2021, 225, 275-285.	2.9	9
11	Novel Data-Driven Distributed Learning Framework for Solving AC Power Flow for Large Interconnected Systems. IEEE Open Access Journal of Power and Energy, 2021, 8, 281-292.	2.5	2
12	Evaluating nextâ€generation intensityâ€“durationâ€“frequency curves for design flood estimates in the snowâ€dominated western United States. Hydrological Processes, 2020, 34, 1255-1268.	1.1	14
13	Power System Event Classification and Localization Using a Convolutional Neural Network. Frontiers in Energy Research, 2020, 8, .	1.2	20
14	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, .	1.0	2
15	Floodplain Inundation and Salinization From a Recently Restored Firstâ€Order Tidal Stream. Water Resources Research, 2020, 56, e2019WR026850.	1.7	15
16	Understanding Hailstone Temporal Variability and Contributing Factors over the U.S. Southern Great Plains. Journal of Climate, 2020, 33, 3947-3966.	1.2	7
17	Bridging the Gap between Laboratory and Field Experiments in American Eel Detection Using Transfer Learning and Convolutional Neural Network. , 2020, , .		5
18	Spatial Mapping of Riverbed Grain-Size Distribution Using Machine Learning. Frontiers in Water, 2020, 2, .	1.0	5

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19	Probabilistic Look-ahead Contingency Analysis Integration with Commercial Tool and Practical Data. IFAC-PapersOnLine, 2020, 53, 13125-13130.	0.5	1
20	Synchrophasor Measurements-based Events Detection Using Deep Learning. , 2020, , .		0
21	Spatiotemporal Pattern Recognition in the PMU Signals in the WECC system. , 2020, , .		0
22	Probabilistic Forecasting of Generators Startups and Shutdowns in the MISO System Based on Random Forest. , 2020, , .		0
23	Data-Driven Feature Analysis in Control Design for Series-Compensated Transmission Systems. IEEE Transactions on Power Systems, 2019, 34, 3297-3299.	4.6	6
24	A multiple lines of evidence approach for identifying geologic heterogeneities in conceptual site models for performance assessments. Science of the Total Environment, 2019, 692, 450-464.	3.9	5
25	Incorporating Climate Nonstationarity and Snowmelt Processes in Intensityâ€“Durationâ€“Frequency Analyses with Case Studies in Mountainous Areas. Journal of Hydrometeorology, 2019, 20, 2331-2346.	0.7	10
26	Machine Learning of Commercial and Residential Load Components in the Northwestern United States. , 2019, , .		0
27	Identification and mapping of riverbed sediment facies in the Columbia River through integration of field observations and numerical simulations. Hydrological Processes, 2019, 33, 1245-1259.	1.1	12
28	Impacts of Spatial Heterogeneity and Temporal Non-Stationarity on Intensity-Duration-Frequency Estimatesâ€”A Case Study in a Mountainous California-Nevada Watershed. Water (Switzerland), 2019, 11, 1296.	1.2	16
29	Regional Snow Parameters Estimation for Largeâ€Domain Hydrological Applications in the Western United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5296-5313.	1.2	38
30	Next-Generation Intensityâ€“Durationâ€“Frequency Curves to Reduce Errors in Peak Flood Design. Journal of Hydrologic Engineering - ASCE, 2019, 24, .	0.8	21
31	Parametric and Structural Sensitivities of Turbineâ€Height Wind Speeds in the Boundary Layer Parameterizations in the Weather Research and Forecasting Model. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5951-5969.	1.2	23
32	Enhancing Hydrologic Design by Next-Generation Intensity-Duration-Frequency Curves Considering Snowmelt and Climate Nonstationarity. , 2019, , .		1
33	Update of Residential Load Profile for WECC Load Composition Model Using Cross-Correlation Method. , 2019, , .		0
34	Integrating Hybrid-Clustering and Localized Regression for Time Synchronization of a Hierarchical Underwater Acoustic Sensor Array. , 2019, , .		2
35	Approximate Mixed-Integer Programming Solution with Machine Learning Technique and Linear Programming Relaxation. , 2019, , .		6
36	Machine-Learning-Based Investigation of the Associations Between Residential Power Consumption and Weather Conditions. , 2019, , .		1

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37	Sensitivity of Turbine-Height Wind Speeds to Parameters in the Planetary Boundary-Layer Parametrization Used in the Weather Research and Forecasting Model: Extension to Wintertime Conditions. Boundary-Layer Meteorology, 2019, 170, 507-518.	1.2	19
38	Observed Spatiotemporal Changes in the Mechanisms of Extreme Water Available for Runoff in the Western United States. Geophysical Research Letters, 2019, 46, 767-775.	1.5	26
39	Riverbed Hydrologic Exchange Dynamics in a Large Regulated River Reach. Water Resources Research, 2018, 54, 2715-2730.	1.7	17
40	Nextâ€Generation Intensityâ€Durationâ€Frequency Curves for Hydrologic Design in Snowâ€Dominated Environments. Water Resources Research, 2018, 54, 1093-1108.	1.7	58
41	Improving BA Control Performance Through Advanced Regulation Requirements Prediction. , 2018, , .		3
42	Parametric Sensitivity and Uncertainty Quantification in the Version 1 of E3SM Atmosphere Model Based on Short Perturbed Parameter Ensemble Simulations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,046.	1.2	53
43	Balancing Needs Assessment Using Advanced Probabilistic Forecasts. , 2018, , .		6
44	Machine Learning of Factors Influencing Damping and Frequency of Dominant Inter-area Modes in the WECC Interconnect. , 2018, , .		3
45	An Open-Source Tool for Automated Power Grid Stress Level Prediction at Balancing Authorities. , 2018, , .		1
46	Online Anomaly Detection Using Machine Learning and HPC for Power System Synchrophasor Measurements. , 2018, , .		5
47	Soil moisture estimation using tomographic ground penetrating radar in a MCMCâ€“Bayesian framework. Stochastic Environmental Research and Risk Assessment, 2018, 32, 2213-2231.	1.9	3
48	Modulating factors of hydrologic exchanges in a largeâ€scale river reach: Insights from threeâ€dimensional computational fluid dynamics simulations. Hydrological Processes, 2018, 32, 3446-3463.	1.1	11
49	Open-Source Suite for Advanced Synchrophasor Analysis. , 2018, , .		5
50	Pattern Mining and Anomaly Detection based on Power System Synchrophasor Measurements. , 2018, , .		3
51	Examining the Hydrological Variations in an Aquaplanet World Using Wave Activity Transformation. Journal of Climate, 2017, 30, 2559-2576.	1.2	7
52	Analysis of a Complex Faulted CO2 Reservoir Using a Three-dimensional Hydro-geochemical-Mechanical Approach. Energy Procedia, 2017, 114, 3496-3506.	1.8	2
53	Bayesian inversion of seismic and electromagnetic data for marine gas reservoir characterization using multi-chain Markov chain Monte Carlo sampling. Journal of Applied Geophysics, 2017, 147, 68-80.	0.9	9
54	Geochemical and Microbial Community Attributes in Relation to Hyporheic Zone Geological Facies. Scientific Reports, 2017, 7, 12006.	1.6	40

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55	A multiscale hydroâ€geochemicalâ€mechanical approach to analyze faulted CO₂ reservoirs. , 2017, 7, 106-127.		3
56	Sensitivity of Turbine-Height Wind Speeds to Parameters in Planetary Boundary-Layer and Surface-Layer Schemes in the Weather Research and Forecasting Model. Boundary-Layer Meteorology, 2017, 162, 117-142.	1.2	56
57	Smart sampling and HPC-based probabilistic look-ahead contingency analysis implementation and its evaluation with real-world data. , 2017, , .		2
58	A New Approach to Quantify Shallow Water Hydrologic Exchanges in a Large Regulated River Reach. Water (Switzerland), 2017, 9, 703.	1.2	12
59	On the applicability of surrogateâ€based Markov chain Monte Carloâ€Bayesian inversion to the Community Land Model: Case studies at flux tower sites. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7548-7563.	1.2	22
60	Quantifying and reducing uncertainty in correlated multi-area short-term load forecasting. , 2016, , .		0
61	Thermal impact of CO2 injection on geomechanical response at the FutureGen 2.0 Site: A three-dimensional thermo-geomechanical approach. International Journal of Greenhouse Gas Control, 2016, 54, 29-49.	2.3	6
62	Three-dimensional analysis of a faulted CO2 reservoir using an Eshelby-Mori-Tanaka approach to rock elastic properties and fault permeability. Journal of Rock Mechanics and Geotechnical Engineering, 2016, 8, 828-845.	3.7	13
63	A look-ahead probabilistic contingency analysis framework incorporating smart sampling techniques. , 2016, , .		2
64	Uncertainty Quantification in Climate Modeling and Projection. Bulletin of the American Meteorological Society, 2016, 97, 821-824.	1.7	49
65	Three-dimensional modeling of the reactive transport of CO2 and its impact on geomechanical properties of reservoir rocks and seals. International Journal of Greenhouse Gas Control, 2016, 46, 100-115.	2.3	24
66	Classification of hydrological parameter sensitivity and evaluation of parameter transferability across 431 US MOPEX basins. Journal of Hydrology, 2016, 536, 92-108.	2.3	23
67	Parametric sensitivity analysis of precipitation at global and local scales in the Community Atmosphere Model CAM5. Journal of Advances in Modeling Earth Systems, 2015, 7, 382-411.	1.3	80
68	Uncertainty quantification for evaluating the impacts of fracture zone on pressure buildâ€up and ground surface uplift during geological CO₂ sequestration. , 2015, 5, 254-267.		2
69	On Approaches to Analyze the Sensitivity of Simulated Hydrologic Fluxes to Model Parameters in the Community Land Model. Water (Switzerland), 2015, 7, 6810-6826.	1.2	3
70	Bayesian Calibration of the Community Land Model Using Surrogates. SIAM-ASA Journal on Uncertainty Quantification, 2015, 3, 199-233.	1.1	23
71	On the configuration of the US Western Interconnection voltage stability boundary. , 2014, , .		3
72	Uncertainty reduction in power generation forecast using coupled wavelet-ARIMA. , 2014, , .		5

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73	Exploring the effects of data quality, data worth, and redundancy of CO2 gas pressure and saturation data on reservoir characterization through PEST inversion. Environmental Earth Sciences, 2014, 71, 3025-3037.	1.3	1
74	Uncertainty-based estimation of the secure range for ISO New England dynamic interchange adjustment. , 2014, , .		3
75	Uncertainty analyses of CO2 plume expansion subsequent to wellbore CO2 leakage into aquifers. International Journal of Greenhouse Gas Control, 2014, 27, 69-80.	2.3	11
76	Geomechanical Evaluation of Thermal Impact of Injected CO2 Temperature on a Geological Reservoir: Application to the FutureGen 2.0 Site. Energy Procedia, 2014, 63, 3298-3304.	1.8	7
77	The robust dynamical contribution to precipitation extremes in idealized warming simulations across model resolutions. Geophysical Research Letters, 2014, 41, 2971-2978.	1.5	29
78	An Uncertainty Quantification Framework for Studying the Effect of Spatial Heterogeneity in Reservoir Permeability on CO2 Sequestration. Mathematical Geosciences, 2013, 45, 799-817.	1.4	10
79	Uncertainty quantification for evaluating impacts of caprock and reservoir properties on pressure buildup and ground surface displacement during geological CO₂sequestration. , 2013, 3, 338-358.		18
80	Model Comparison and Uncertainty Quantification for Geologic Carbon Storage: The Sim-SEQ Initiative. Energy Procedia, 2013, 37, 3867-3874.	1.8	5
81	Implementations of a Flexible Framework for Managing Geologic Sequestration Modeling Projects. Energy Procedia, 2013, 37, 3971-3979.	1.8	0
82	Standardized Software for Wind Load Forecast Error Analyses and Predictions Based on Wavelet-ARIMA Models -- Applications at Multiple Geographically Distributed Wind Farms. , 2013, , .		2
83	Uncertainty Analysis of Runoff Simulations and Parameter Identifiability in the Community Land Model: Evidence from MOPEX Basins. Journal of Hydrometeorology, 2013, 14, 1754-1772.	0.7	55
84	FIELD-SCALE GROUND-PENETRATING-RADAR TOMOGRAPHY AND UNCERTAINTY QUANTIFICATION THROUGH ENTROPY-BASED BAYESIAN INVERSION. , 2013, , .		0
85	A sensitivity study of radiative fluxes at the top of atmosphere to cloud-microphysics and aerosol parameters in the community atmosphere model CAM5. Atmospheric Chemistry and Physics, 2013, 13, 10969-10987.	1.9	65
86	Poreâ€scale simulation of intragranular diffusion: Effects of incomplete mixing on macroscopic manifestations. Water Resources Research, 2013, 49, 4277-4294.	1.7	16
87	Inverse modeling of hydrologic parameters using surface flux and runoff observations in the Community Land Model. Hydrology and Earth System Sciences, 2013, 17, 4995-5011.	1.9	23
88	Evaluating the impact of caprock and reservoir properties on potential risk of CO2 leakage after injection. Environmental Earth Sciences, 2012, 66, 2403-2415.	1.3	40
89	Sensitivity of surface flux simulations to hydrologic parameters based on an uncertainty quantification framework applied to the Community Land Model. Journal of Geophysical Research, 2012, 117, .	3.3	97
90	Hydraulic Conductivity Estimation Using Tomographic Ground Penetrating Radar Data within a Samplingâ€Based Bayesian Inversion Approach. , 2008, , .		1

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91	A Bayesian model for gas saturation estimation using marine seismic AVA and CSEM data. Geophysics, 2007, 72, WA85-WA95.	1.4	99
92	Reservoir-parameter identification using minimum relative entropy-based Bayesian inversion of seismic AVA and marine CSEM data. Geophysics, 2006, 71, O77-O88.	1.4	37
93	Direct reservoir parameter estimation using joint inversion of marine seismic AVA and CSEM data. Geophysics, 2006, 71, C1-C13.	1.4	143
94	Transportation and deposition of magnetite and gold in Harris Creek, south-central British Columbia. Geochemistry: Exploration, Environment, Analysis, 2005, 5, 215-221.	0.5	0
95	On minimum relative entropy concepts and prior compatibility issues in vadose zone inverse and forward modeling. Water Resources Research, 2005, 41, .	1.7	59
96	MREâ€based bayesian inversion of seismic and EM data for identification of reservoir parameters. , 2005, , .		2
97	Joint inversion of seismic AVO and EM data for gas saturation estimation using a samplingâ€based stochastic model. , 2004, , .		12
98	The relations between false gold anomalies, sedimentological processes and landslides in Harris Creek, British Columbia, Canada. Journal of Geochemical Exploration, 1996, 57, 21-30.	1.5	5
99	Weather and Random Forest-based Load Profiling Approximation Models and Their Transferability across Climate Zones. , 0, , .		2