

Z Jason Hou

List of Publications by Year in descending order

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Version: 2024-02-01

99
papers

1,633
citations

331538

21
h-index

345118

36
g-index

109
all docs

109
docs citations

109
times ranked

1995
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct reservoir parameter estimation using joint inversion of marine seismic AVA and CSEM data. <i>Geophysics</i> , 2006, 71, C1-C13.	1.4	143
2	A Bayesian model for gas saturation estimation using marine seismic AVA and CSEM data. <i>Geophysics</i> , 2007, 72, WA85-WA95.	1.4	99
3	Sensitivity of surface flux simulations to hydrologic parameters based on an uncertainty quantification framework applied to the Community Land Model. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	97
4	Parametric sensitivity analysis of precipitation at global and local scales in the Community Atmosphere Model CAM5. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 382-411.	1.3	80
5	A sensitivity study of radiative fluxes at the top of atmosphere to cloud-microphysics and aerosol parameters in the community atmosphere model CAM5. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 10969-10987.	1.9	65
6	On minimum relative entropy concepts and prior compatibility issues in vadose zone inverse and forward modeling. <i>Water Resources Research</i> , 2005, 41, .	1.7	59
7	Next-Generation Intensity-Duration-Frequency Curves for Hydrologic Design in Snow-Dominated Environments. <i>Water Resources Research</i> , 2018, 54, 1093-1108.	1.7	58
8	Sensitivity of Turbine-Height Wind Speeds to Parameters in Planetary Boundary-Layer and Surface-Layer Schemes in the Weather Research and Forecasting Model. <i>Boundary-Layer Meteorology</i> , 2017, 162, 117-142.	1.2	56
9	Uncertainty Analysis of Runoff Simulations and Parameter Identifiability in the Community Land Model: Evidence from MOPEX Basins. <i>Journal of Hydrometeorology</i> , 2013, 14, 1754-1772.	0.7	55
10	Parametric Sensitivity and Uncertainty Quantification in the Version 1 of E3SM Atmosphere Model Based on Short Perturbed Parameter Ensemble Simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 13,046.	1.2	53
11	Uncertainty Quantification in Climate Modeling and Projection. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, 821-824.	1.7	49
12	Evaluating the impact of caprock and reservoir properties on potential risk of CO2 leakage after injection. <i>Environmental Earth Sciences</i> , 2012, 66, 2403-2415.	1.3	40
13	Geochemical and Microbial Community Attributes in Relation to Hyporheic Zone Geological Facies. <i>Scientific Reports</i> , 2017, 7, 12006.	1.6	40
14	Regional Snow Parameters Estimation for Large-Domain Hydrological Applications in the Western United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 5296-5313.	1.2	38
15	Reservoir-parameter identification using minimum relative entropy-based Bayesian inversion of seismic AVA and marine CSEM data. <i>Geophysics</i> , 2006, 71, O77-O88.	1.4	37
16	The robust dynamical contribution to precipitation extremes in idealized warming simulations across model resolutions. <i>Geophysical Research Letters</i> , 2014, 41, 2971-2978.	1.5	29
17	Observed Spatiotemporal Changes in the Mechanisms of Extreme Water Available for Runoff in the Western United States. <i>Geophysical Research Letters</i> , 2019, 46, 767-775.	1.5	26
18	Three-dimensional modeling of the reactive transport of CO2 and its impact on geomechanical properties of reservoir rocks and seals. <i>International Journal of Greenhouse Gas Control</i> , 2016, 46, 100-115.	2.3	24

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19	Inverse modeling of hydrologic parameters using surface flux and runoff observations in the Community Land Model. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 4995-5011.	1.9	23
20	Bayesian Calibration of the Community Land Model Using Surrogates. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2015, 3, 199-233.	1.1	23
21	Classification of hydrological parameter sensitivity and evaluation of parameter transferability across 431 US MOPEX basins. <i>Journal of Hydrology</i> , 2016, 536, 92-108.	2.3	23
22	Parametric and Structural Sensitivities of Turbine-Height Wind Speeds in the Boundary Layer Parameterizations in the Weather Research and Forecasting Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 5951-5969.	1.2	23
23	On the applicability of surrogate-based Markov chain Monte Carlo-Bayesian inversion to the Community Land Model: Case studies at flux tower sites. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7548-7563.	1.2	22
24	Next-Generation Intensity-Duration-Frequency Curves to Reduce Errors in Peak Flood Design. <i>Journal of Hydrologic Engineering - ASCE</i> , 2019, 24, .	0.8	21
25	Power System Event Classification and Localization Using a Convolutional Neural Network. <i>Frontiers in Energy Research</i> , 2020, 8, .	1.2	20
26	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. <i>Boundary-Layer Meteorology</i> , 2019, 170, 507-518.	1.2	19
27	Uncertainty quantification for evaluating impacts of caprock and reservoir properties on pressure buildup and ground surface displacement during geological CO ₂ sequestration. , 2013, 3, 338-358.		18
28	Riverbed Hydrologic Exchange Dynamics in a Large Regulated River Reach. <i>Water Resources Research</i> , 2018, 54, 2715-2730.	1.7	17
29	Pore-scale simulation of intragranular diffusion: Effects of incomplete mixing on macroscopic manifestations. <i>Water Resources Research</i> , 2013, 49, 4277-4294.	1.7	16
30	Impacts of Spatial Heterogeneity and Temporal Non-Stationarity on Intensity-Duration-Frequency Estimates—A Case Study in a Mountainous California-Nevada Watershed. <i>Water (Switzerland)</i> , 2019, 11, 1296.	1.2	16
31	Deep Learning for Automated Detection and Identification of Migrating American Eel <i>Anguilla rostrata</i> from Imaging Sonar Data. <i>Remote Sensing</i> , 2021, 13, 2671.	1.8	16
32	Floodplain Inundation and Salinization From a Recently Restored First-Order Tidal Stream. <i>Water Resources Research</i> , 2020, 56, e2019WR026850.	1.7	15
33	Evaluating next-generation intensity-duration-frequency curves for design flood estimates in the snow-dominated western United States. <i>Hydrological Processes</i> , 2020, 34, 1255-1268.	1.1	14
34	Three-dimensional analysis of a faulted CO ₂ reservoir using an Eshelby-Mori-Tanaka approach to rock elastic properties and fault permeability. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2016, 8, 828-845.	3.7	13
35	Joint inversion of seismic AVO and EM data for gas saturation estimation using a sampling-based stochastic model. , 2004, , .		12
36	A New Approach to Quantify Shallow Water Hydrologic Exchanges in a Large Regulated River Reach. <i>Water (Switzerland)</i> , 2017, 9, 703.	1.2	12

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37	Identification and mapping of riverbed sediment facies in the Columbia River through integration of field observations and numerical simulations. <i>Hydrological Processes</i> , 2019, 33, 1245-1259.	1.1	12
38	Uncertainty analyses of CO2 plume expansion subsequent to wellbore CO2 leakage into aquifers. <i>International Journal of Greenhouse Gas Control</i> , 2014, 27, 69-80.	2.3	11
39	Modulating factors of hydrologic exchanges in a large-scale river reach: Insights from three-dimensional computational fluid dynamics simulations. <i>Hydrological Processes</i> , 2018, 32, 3446-3463.	1.1	11
40	An Uncertainty Quantification Framework for Studying the Effect of Spatial Heterogeneity in Reservoir Permeability on CO2 Sequestration. <i>Mathematical Geosciences</i> , 2013, 45, 799-817.	1.4	10
41	Incorporating Climate Nonstationarity and Snowmelt Processes in Intensity-Duration-Frequency Analyses with Case Studies in Mountainous Areas. <i>Journal of Hydrometeorology</i> , 2019, 20, 2331-2346.	0.7	10
42	Machine Learning Analysis of Hydrologic Exchange Flows and Transit Time Distributions in a Large Regulated River. <i>Frontiers in Artificial Intelligence</i> , 2021, 4, 648071.	2.0	10
43	Bayesian inversion of seismic and electromagnetic data for marine gas reservoir characterization using multi-chain Markov chain Monte Carlo sampling. <i>Journal of Applied Geophysics</i> , 2017, 147, 68-80.	0.9	9
44	Improving prediction of surface solar irradiance variability by integrating observed cloud characteristics and machine learning. <i>Solar Energy</i> , 2021, 225, 275-285.	2.9	9
45	Geomechanical Evaluation of Thermal Impact of Injected CO2 Temperature on a Geological Reservoir: Application to the FutureGen 2.0 Site. <i>Energy Procedia</i> , 2014, 63, 3298-3304.	1.8	7
46	Examining the Hydrological Variations in an Aquaplanet World Using Wave Activity Transformation. <i>Journal of Climate</i> , 2017, 30, 2559-2576.	1.2	7
47	Understanding Hailstone Temporal Variability and Contributing Factors over the U.S. Southern Great Plains. <i>Journal of Climate</i> , 2020, 33, 3947-3966.	1.2	7
48	Thermal impact of CO2 injection on geomechanical response at the FutureGen 2.0 Site: A three-dimensional thermo-geomechanical approach. <i>International Journal of Greenhouse Gas Control</i> , 2016, 54, 29-49.	2.3	6
49	Balancing Needs Assessment Using Advanced Probabilistic Forecasts. , 2018, , .		6
50	Data-Driven Feature Analysis in Control Design for Series-Compensated Transmission Systems. <i>IEEE Transactions on Power Systems</i> , 2019, 34, 3297-3299.	4.6	6
51	Approximate Mixed-Integer Programming Solution with Machine Learning Technique and Linear Programming Relaxation. , 2019, , .		6
52	Smart Sampling for Reduced and Representative Power System Scenario Selection. <i>IEEE Open Access Journal of Power and Energy</i> , 2021, 8, 293-302.	2.5	6
53	The relations between false gold anomalies, sedimentological processes and landslides in Harris Creek, British Columbia, Canada. <i>Journal of Geochemical Exploration</i> , 1996, 57, 21-30.	1.5	5
54	Model Comparison and Uncertainty Quantification for Geologic Carbon Storage: The Sim-SEQ Initiative. <i>Energy Procedia</i> , 2013, 37, 3867-3874.	1.8	5

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55	Uncertainty reduction in power generation forecast using coupled wavelet-ARIMA. , 2014, , .		5
56	Online Anomaly Detection Using Machine Learning and HPC for Power System Synchrophasor Measurements. , 2018, , .		5
57	Open-Source Suite for Advanced Synchrophasor Analysis. , 2018, , .		5
58	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
59	Bridging the Gap between Laboratory and Field Experiments in American Eel Detection Using Transfer Learning and Convolutional Neural Network. , 2020, , .		5
60	Spatial Mapping of Riverbed Grain-Size Distribution Using Machine Learning. Frontiers in Water, 2020, 2, .	1.0	5
61	Datasets for characterizing extreme events relevant to hydrologic design over the conterminous United States. Scientific Data, 2022, 9, 154.	2.4	5
62	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
63	On the configuration of the US Western Interconnection voltage stability boundary. , 2014, , .		3
64	Uncertainty-based estimation of the secure range for ISO New England dynamic interchange adjustment. , 2014, , .		3
65	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
66	A multiscale hydroâ€™geochemicalâ€™mechanical approach to analyze faulted CO ₂ reservoirs. , 2017, 7, 106-127.		3
67	Improving BA Control Performance Through Advanced Regulation Requirements Prediction. , 2018, , .		3
68	Machine Learning of Factors Influencing Damping and Frequency of Dominant Inter-area Modes in the WECC Interconnect. , 2018, , .		3
69	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
70	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
71	Pattern Mining and Anomaly Detection based on Power System Synchrophasor Measurements. , 2018, , .		3
72	Standardized Software for Wind Load Forecast Error Analyses and Predictions Based on Wavelet-ARIMA Models – Applications at Multiple Geographically Distributed Wind Farms. , 2013, , .		2

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73	Uncertainty quantification for evaluating the impacts of fracture zone on pressure buildup and ground surface uplift during geological CO ₂ sequestration. , 2015, 5, 254-267.		2
74	A look-ahead probabilistic contingency analysis framework incorporating smart sampling techniques. , 2016, , .		2
75	Analysis of a Complex Faulted CO2 Reservoir Using a Three-dimensional Hydro-geochemical-Mechanical Approach. Energy Procedia, 2017, 114, 3496-3506.	1.8	2
76	Smart sampling and HPC-based probabilistic look-ahead contingency analysis implementation and its evaluation with real-world data. , 2017, , .		2
77	Integrating Hybrid-Clustering and Localized Regression for Time Synchronization of a Hierarchical Underwater Acoustic Sensor Array. , 2019, , .		2
78	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
79	Weather and Random Forest-based Load Profiling Approximation Models and Their Transferability across Climate Zones. , 0, , .		2
80	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
81	MRE-based bayesian inversion of seismic and EM data for identification of reservoir parameters. , 2005, , .		2
82	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
83	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
84	An Open-Source Tool for Automated Power Grid Stress Level Prediction at Balancing Authorities. , 2018, , .		1
85	Enhancing Hydrologic Design by Next-Generation Intensity-Duration-Frequency Curves Considering Snowmelt and Climate Nonstationarity. , 2019, , .		1
86	Machine-Learning-Based Investigation of the Associations Between Residential Power Consumption and Weather Conditions. , 2019, , .		1
87	A novel construct for scaling groundwater-river interactions based on machine-guided hydromorphic classification. Environmental Research Letters, 2021, 16, 104016.	2.2	1
88	Hydraulic Conductivity Estimation Using Tomographic Ground Penetrating Radar Data within a Sampling-Based Bayesian Inversion Approach. , 2008, , .		1
89	Probabilistic Look-ahead Contingency Analysis Integration with Commercial Tool and Practical Data. IFAC-PapersOnLine, 2020, 53, 13125-13130.	0.5	1
90	Inverse Modeling of Hydrologic Parameters in CLM4 via Generalized Polynomial Chaos in the Bayesian Framework. Computation, 2022, 10, 72.	1.0	1

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91	Transportation and deposition of magnetite and gold in Harris Creek, south-central British Columbia. <i>Geochemistry: Exploration, Environment, Analysis</i> , 2005, 5, 215-221.	0.5	0
92	Implementations of a Flexible Framework for Managing Geologic Sequestration Modeling Projects. <i>Energy Procedia</i> , 2013, 37, 3971-3979.	1.8	0
93	FIELD-SCALE GROUND-PENETRATING-RADAR TOMOGRAPHY AND UNCERTAINTY QUANTIFICATION THROUGH ENTROPY-BASED BAYESIAN INVERSION. , 2013, , .		0
94	Quantifying and reducing uncertainty in correlated multi-area short-term load forecasting. , 2016, , .		0
95	Machine Learning of Commercial and Residential Load Components in the Northwestern United States. , 2019, , .		0
96	Update of Residential Load Profile for WECC Load Composition Model Using Cross-Correlation Method. , 2019, , .		0
97	Synchrophasor Measurements-based Events Detection Using Deep Learning. , 2020, , .		0
98	Spatiotemporal Pattern Recognition in the PMU Signals in the WECC system. , 2020, , .		0
99	Probabilistic Forecasting of Generators Startups and Shutdowns in the MISO System Based on Random Forest. , 2020, , .		0