

Frank T-C Tsai

List of Publications by Year in descending order

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73
papers

2,340
citations

201674

27
h-index

223800

46
g-index

73
all docs

73
docs citations

73
times ranked

2074
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Radial Basis Function Approach for Infiltration-Induced Landslides in Unsaturated Soils. <i>Water (Switzerland)</i> , 2022, 14, 1036.	2.7	2
2	Advances in analytical solutions for time-dependent solute transport model. <i>Journal of Earth System Science</i> , 2022, 131, .	1.3	3
3	Constructing large-scale complex aquifer systems with big well log data: Louisiana model. <i>Computers and Geosciences</i> , 2021, 148, 104687.	4.2	6
4	Irrigation-Intensive Groundwater Modeling of Complex Aquifer Systems Through Integration of Big Geological Data. <i>Frontiers in Water</i> , 2021, 3, .	2.3	5
5	Assessment of Aquifer Storage and Recovery Feasibility Using Numerical Modeling and Geospatial Analysis: Application in Louisiana. <i>Journal of the American Water Resources Association</i> , 2021, 57, 505-526.	2.4	8
6	Multiobjective Optimization of Relief Well Operations to Improve Levee Safety. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	3.0	4
7	Relief Well Evaluation: Three-Dimensional Modeling and Blanket Theory. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	3.0	2
8	Accounting for uncertainty in complex alluvial aquifer modeling by Bayesian multi-model approach. <i>Journal of Hydrology</i> , 2021, 601, 126682.	5.4	7
9	Modelling and comparing 3-D soil stratigraphy using subsurface borings and cone penetrometer tests in coastal Louisiana, USA. <i>Georisk</i> , 2020, 14, 158-176.	3.5	8
10	Bayesian set pair analysis and machine learning based ensemble surrogates for optimal multi-aquifer system remediation design. <i>Journal of Hydrology</i> , 2020, 580, 124280.	5.4	26
11	Understanding impacts of groundwater dynamics on flooding and levees in Greater New Orleans. <i>Journal of Hydrology: Regional Studies</i> , 2020, 32, 100740.	2.4	4
12	A three-dimensional stratigraphic model of the Mississippi River Delta, USA: implications for river deltaic hydrogeology. <i>Hydrogeology Journal</i> , 2020, 28, 2341-2358.	2.1	2
13	Multiobjective Spatial Pumping Optimization for Groundwater Management in a Multiaquifer System. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2020, 146, .	2.6	22
14	Understanding dynamics of groundwater flows in the Mississippi River Delta. <i>Journal of Hydrology</i> , 2020, 583, 124616.	5.4	2
15	Steady-State Approximate Freshwater-Saltwater Interface in a Two-Horizontal-Well Scavenging System. <i>Journal of Hydrologic Engineering - ASCE</i> , 2019, 24, .	1.9	10
16	Optimization of an adaptive neuro-fuzzy inference system for groundwater potential mapping. <i>Hydrogeology Journal</i> , 2019, 27, 2511-2534.	2.1	76
17	MRT-Lattice Boltzmann Model for Multilayer Shallow Water Flow. <i>Water (Switzerland)</i> , 2019, 11, 1623.	2.7	7
18	Modeling sediment texture of river-deltaic wetlands in the Lower Barataria Bay and Lower Breton Sound, Louisiana, USA. <i>Geo-Marine Letters</i> , 2019, 39, 161-173.	1.1	3

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19	Bayesian Hierarchical Model Uncertainty Quantification for Future Hydroclimate Projections in Southern Hills-Gulf Region, USA. <i>Water (Switzerland)</i> , 2019, 11, 268.	2.7	8
20	Prediction of effluent quality parameters of a wastewater treatment plant using a supervised committee fuzzy logic model. <i>Journal of Cleaner Production</i> , 2018, 180, 539-549.	9.3	126
21	Saltwater scavenging optimization under surrogate uncertainty for a multi-aquifer system. <i>Journal of Hydrology</i> , 2018, 565, 698-710.	5.4	26
22	A comparison study of DRASTIC methods with various objective methods for groundwater vulnerability assessment. <i>Science of the Total Environment</i> , 2018, 642, 1032-1049.	8.0	151
23	Analysis and Assessment of Hydrochemical Characteristics of Maragheh-Bonab Plain Aquifer, Northwest of Iran. <i>Water Resources Management</i> , 2017, 31, 765-780.	3.9	42
24	Modeling complex aquifer systems: a case study in Baton Rouge, Louisiana (USA). <i>Hydrogeology Journal</i> , 2017, 25, 601-615.	2.1	27
25	Ensemble Averaging Methods for Quantifying Uncertainty Sources in Modeling Climate Change Impact on Runoff Projection. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	1.9	12
26	Optimal observation network design for conceptual model discrimination and uncertainty reduction. <i>Water Resources Research</i> , 2016, 52, 1245-1264.	4.2	24
27	Conjunctive management of surface and groundwater resources under projected future climate change scenarios. <i>Journal of Hydrology</i> , 2016, 540, 397-411.	5.4	33
28	Mixed Integer Linear Fractional Programming for Conjunctive Use of Surface Water and Groundwater. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2016, 142, .	2.6	16
29	A Hierarchical Bayesian Model Averaging Framework for Groundwater Prediction under Uncertainty. <i>Ground Water</i> , 2015, 53, 305-316.	1.3	15
30	Bayesian Chance-Constrained Hydraulic Barrier Design under Geological Structure Uncertainty. <i>Ground Water</i> , 2015, 53, 908-919.	1.3	10
31	Prediction and structural uncertainty analyses of artificial neural networks using hierarchical Bayesian model averaging. <i>Journal of Hydrology</i> , 2015, 528, 52-62.	5.4	69
32	Bayesian experimental design for identification of model propositions and conceptual model uncertainty reduction. <i>Advances in Water Resources</i> , 2015, 83, 148-159.	3.8	15
33	Uncertainty Segregation and Comparative Evaluation in Groundwater Remediation Designs: A Chance-Constrained Hierarchical Bayesian Model Averaging Approach. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2015, 141, .	2.6	12
34	Comparative study of climate-change scenarios on groundwater recharge, southwestern Mississippi and southeastern Louisiana, USA. <i>Hydrogeology Journal</i> , 2015, 23, 789-806.	2.1	19
35	Soil density, elasticity, and the soil-water characteristic curve inverted from field-based seismic P- and S-wave velocity in shallow nearly saturated layered soils. <i>Geophysics</i> , 2015, 80, WB11-WB19.	2.6	8
36	Parallel Inverse Modeling and Uncertainty Quantification for Computationally Demanding Groundwater-Flow Models Using Covariance Matrix Adaptation. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, .	1.9	28

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37	Bayesian Artificial Intelligence Model Averaging for Hydraulic Conductivity Estimation. Journal of Hydrologic Engineering - ASCE, 2014, 19, 520-532.	1.9	52
38	Review of Groundwater Reactive Transport Models by F. Zhang, G.-T. Yeh, and J. C. Parker. Bentham Science Publishers, Oak Park, IL; 2012; ISBN 978-1-60805-306-3; 244 pp., \$44.. Journal of Hydrologic Engineering - ASCE, 2014, 19, 1497-1497.	1.9	0
39	GIS-Based Water Budget Framework for High-Resolution Groundwater Recharge Estimation of Large-Scale Humid Regions. Journal of Hydrologic Engineering - ASCE, 2014, 19, .	1.9	20
40	Constructive epistemic modeling of groundwater flow with geological structure and boundary condition uncertainty under the Bayesian paradigm. Journal of Hydrology, 2014, 517, 105-119.	5.4	38
41	Hydrogeochemical analysis for Tasuj plain aquifer, Iran. Journal of Earth System Science, 2013, 122, 1091-1105.	1.3	47
42	Indicator geostatistics for reconstructing Baton Rouge aquifer-fault hydrostratigraphy, Louisiana, USA. Hydrogeology Journal, 2013, 21, 1731-1747.	2.1	21
43	Optimization of DRASTIC method by supervised committee machine artificial intelligence to assess groundwater vulnerability for Maraghehâ€“Bonab plain aquifer, Iran. Journal of Hydrology, 2013, 503, 89-100.	5.4	138
44	Fluid dispersion effects on density-driven thermohaline flow and transport in porous media. Advances in Water Resources, 2013, 61, 12-28.	3.8	21
45	Supervised committee machine with artificial intelligence for prediction of fluoride concentration. Journal of Hydroinformatics, 2013, 15, 1474-1490.	2.4	60
46	Hierarchical Bayesian model averaging for hydrostratigraphic modeling: Uncertainty segregation and comparative evaluation. Water Resources Research, 2013, 49, 5520-5536.	4.2	40
47	GPU accelerated lattice Boltzmann model for shallow water flow and mass transport. International Journal for Numerical Methods in Engineering, 2011, 86, 316-334.	2.8	32
48	Model Calibration and Parameter Structure Identification in Characterization of Groundwater Systems. , 2011, , 159-202.		0
49	Bayesian model averaging assessment on groundwater management under model structure uncertainty. Stochastic Environmental Research and Risk Assessment, 2010, 24, 845-861.	4.0	38
50	Salinity and Soluble Organic Matter on Virus Sorption in Sand and Soil Columns. Ground Water, 2010, 48, 42-52.	1.3	33
51	Twoâ€“relaxationâ€“time lattice Boltzmann method for the anisotropic dispersive Henry problem. Water Resources Research, 2010, 46, .	4.2	32
52	Reply to comment by Ming Ye et al. on â€œInverse groundwater modeling for hydraulic conductivity estimation using Bayesian model averaging and variance windowâ€œ. Water Resources Research, 2010, 46, .	4.2	12
53	Indicator Generalized Parameterization for Interpolation Point Selection in Groundwater Inverse Modeling. Journal of Hydrologic Engineering - ASCE, 2009, 14, 233-242.	1.9	6
54	Multilayer shallow water flow using lattice Boltzmann method with high performance computing. Advances in Water Resources, 2009, 32, 1767-1776.	3.8	30

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55	Conjunctive Management of Large-Scale Pressurized Water Distribution and Groundwater Systems in Semi-Arid Area with Parallel Genetic Algorithm. <i>Water Resources Management</i> , 2009, 23, 1497-1517.	3.9	24
56	Non-negativity and stability analyses of lattice Boltzmann method for advection-diffusion equation. <i>Journal of Computational Physics</i> , 2009, 228, 236-256.	3.8	60
57	Saltwater intrusion modeling in heterogeneous confined aquifers using two-relaxation-time lattice Boltzmann method. <i>Advances in Water Resources</i> , 2009, 32, 620-631.	3.8	38
58	Bayesian model averaging for groundwater head prediction and uncertainty analysis using multimodel and multimethod. <i>Water Resources Research</i> , 2009, 45, .	4.2	61
59	Geophysical data integration, stochastic simulation and significance analysis of groundwater responses using ANOVA in the Chicot Aquifer system, Louisiana, USA. <i>Hydrogeology Journal</i> , 2008, 16, 749-764.	2.1	6
60	Lattice Boltzmann method with two relaxation times for advection-diffusion equation: Third order analysis and stability analysis. <i>Advances in Water Resources</i> , 2008, 31, 1113-1126.	3.8	82
61	Multiple Parameterization for Hydraulic Conductivity Identification. <i>Ground Water</i> , 2008, 46, 851-864.	1.3	15
62	Applying Zonation Methods and Tabu Search to Improve the Groundwater Modeling. <i>Journal of the American Water Resources Association</i> , 2008, 44, 107-120.	2.4	9
63	Inverse groundwater modeling for hydraulic conductivity estimation using Bayesian model averaging and variance window. <i>Water Resources Research</i> , 2008, 44, .	4.2	77
64	Coupled Semivariogram Uncertainty of Hydrogeological and Geophysical Data on Capture Zone Uncertainty Analysis. <i>Journal of Hydrologic Engineering - ASCE</i> , 2008, 13, 915-925.	1.9	3
65	Model Development and Calibration of a Saltwater Intrusion Model in Southern California. <i>Journal of the American Water Resources Association</i> , 2007, 43, 1329-1343.	2.4	10
66	Enhancing random heterogeneity representation by mixing the kriging method with the zonation structure. <i>Water Resources Research</i> , 2006, 42, .	4.2	18
67	Geophysical parameterization and parameter structure identification using natural neighbors in groundwater inverse problems. <i>Journal of Hydrology</i> , 2005, 308, 269-283.	5.4	27
68	Optimization of Water Distribution and Water Quality by Hybrid Genetic Algorithm. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2005, 131, 431-440.	2.6	50
69	Characterization and identification of aquifer heterogeneity with generalized parameterization and Bayesian estimation. <i>Water Resources Research</i> , 2004, 40, .	4.2	46
70	Aquifer Characterization and Parameter Heterogeneity Estimation with a Coupled Zonation-Geostatistical Method and Natural Neighbors. , 2004, , 1.		3
71	A Combinatorial Optimization Scheme for Parameter Structure Identification in Ground Water Modeling. <i>Ground Water</i> , 2003, 41, 156-169.	1.3	61
72	Global-local optimization for parameter structure identification in three-dimensional groundwater modeling. <i>Water Resources Research</i> , 2003, 39, .	4.2	68

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73	Optimization of Large-Scale Hydropower System Operations. Journal of Water Resources Planning and Management - ASCE, 2003, 129, 178-188.	2.6	224