Behnam Jafarpour

List of Publications by Year
in descending order

65 papers	1,769 citations	331670 21 h-index	276875 41 g-index
65 all docs	65 docs citations	65 times ranked	798 citing authors

#	Article	IF	Citations
1	Conditioning generative adversarial networks on nonlinear data for subsurface flow model calibration and uncertainty quantification. Computational Geosciences, 2022, 26, 29-52.	2.4	7
2	Latent-space inversion (LSI): a deep learning framework for inverse mapping of subsurface flow data. Computational Geosciences, 2022, 26, 71-99.	2.4	5
3	Efficient Robust Production Optimization with Reduced Sampling. SPE Journal, 2022, 27, 1973-1988.	3.1	3
4	Transfer Learning with Recurrent Neural Networks for Long-Term Production Forecasting in Unconventional Reservoirs. SPE Journal, 2022, 27, 2425-2442.	3.1	17
5	Deep Learning for Latent Space Data Assimilation in Subsurface Flow Systems. SPE Journal, 2022, 27, 2820-2840.	3.1	4
6	Recurrent neural networks for short-term and long-term prediction of geothermal reservoirs. Geothermics, 2022, 104, 102439.	3.4	11
7	Residual Learning to Integrate Neural Network and Physics-Based Models for Improved Production Prediction in Unconventional Reservoirs. SPE Journal, 2022, 27, 3328-3350.	3.1	4
8	Inference of Rock Flow and Mechanical Properties from Injection-Induced Microseismic Events During Geologic CO2 Storage. International Journal of Greenhouse Gas Control, 2021, 105, 103206.	4.6	9
9	Inverting subsurface flow data for geologic scenarios selection with convolutional neural networks. Advances in Water Resources, 2021, 149, 103840.	3.8	8
10	Geologic CO2 Storage Optimization under Geomechanical Risk Using Coupled-Physics Models. International Journal of Greenhouse Gas Control, 2021, 110, 103385.	4.6	19
11	Deep Convolutional Autoencoders for Robust Flow Model Calibration Under Uncertainty in Geologic Continuity. Water Resources Research, 2021, 57, e2021WR029754.	4.2	15
12	A reduced random sampling strategy for fast robust well placement optimization. Journal of Petroleum Science and Engineering, 2020, 184, 106414.	4.2	29
13	Convolutional neural networks (CNN) for feature-based model calibration under uncertain geologic scenarios. Computational Geosciences, 2020, 24, 1625-1649.	2.4	39
14	Closed-loop stochastic oilfield optimization for hedging against geologic, development, and operation uncertainty. Computational Geosciences, 2020, 24, 129-148.	2.4	6
15	Reducing uncertainty in conceptual prior models of complex geologic systems via integration of flow response data. Computational Geosciences, 2020, 24, 161-180.	2.4	3
16	Stochastic Oilfield Optimization Under Uncertain Future Development Plans. SPE Journal, 2019, 24, 1526-1551.	3.1	7
17	Dynamic characterization of geologic CO2 storage aquifers from monitoring data with ensemble Kalman filter. International Journal of Greenhouse Gas Control, 2019, 81, 199-215.	4.6	18
18	A pattern-matching method for flow model calibration under training image constraint. Computational Geosciences, 2019, 23, 813-828.	2.4	1

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19	Assessing Multiple-Point Statistical Facies Simulation Behavior for Effective Conditioning on Probabilistic Data. Mathematical Geosciences, 2019, 51, 975-998.	2.4	1
20	Integration of soft data into multiple-point statistical simulation: re-assessing the probability conditioning method for facies model calibration. Computational Geosciences, 2019, 23, 683-703.	2.4	8
21	Combining Regularized Convolutional Neural Networks with Production Data Integration for Geologic Scenario Selection. , 2019, , .		1
22	Inference of Global Reservoir Connectivity from Static Pressure Data with Fast Coarse-Scale Simulation Models. Mathematical Geosciences, 2019, 51, 625-648.	2.4	3
23	Dynamic Fracture Characterization From Tracer-Test and Flow-Rate Data With Ensemble Kalman Filter. SPE Journal, 2018, 23, 449-466.	3.1	16
24	Pilot points method for conditioning multiple-point statistical facies simulation on flow data. Advances in Water Resources, 2018, 115, 219-233.	3.8	14
25	Discrete Regularization for Calibration of Geologic Facies Against Dynamic Flow Data. Water Resources Research, 2018, 54, 2523-2543.	4.2	6
26	Hedging against Uncertain Future Development Plans in Closed-loop Field Development Optimization. , 2018, , .		4
27	Pattern-based calibration of complex subsurface flow models against dynamic response data. Advances in Water Resources, 2018, 121, 388-405.	3.8	2
28	Field-scale history matching with sparse geologic dictionaries. Journal of Petroleum Science and Engineering, 2018, 170, 967-991.	4.2	5
29	Discrete Regularization for Calibration of Geologic Facies Against Dynamic Flow Data. , 2018, 54, 2523.		1
30	Exploiting Sparsity in Solving PDE-Constrained Inverse Problems: Application to Subsurface Flow Model Calibration. The IMA Volumes in Mathematics and Its Applications, 2018, , 399-434.	0.5	1
31	A unified formulation for generalized oilfield development optimization. Computational Geosciences, 2017, 21, 47-74.	2.4	6
32	A Distance Transform Method for History Matching of Discrete Geologic Facies Models. , 2017, , .		1
33	A distance transform for continuous parameterization of discrete geologic facies for subsurface flow model calibration. Water Resources Research, 2017, 53, 8226-8249.	4.2	14
34	Simultaneous geologic scenario identification and flow model calibration with group-sparsity formulations. Advances in Water Resources, 2016, 92, 208-227.	3.8	17
35	Fast linearized forecasts for subsurface flow data assimilation with ensemble Kalman filter. Computational Geosciences, 2016, 20, 929-952.	2.4	9
36	Optimization of hydraulic fracturing design under spatially variable shale fracability. Journal of Petroleum Science and Engineering, 2016, 138, 174-188.	4.2	72

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37	Integration of microseismic monitoring data into coupled flow and geomechanical models with ensemble Kalman filter. Water Resources Research, 2015, 51, 5177-5197.	4.2	32
38	Group–sparsity regularization for ill–posed subsurface flow inverse problems. Water Resources Research, 2015, 51, 8607-8626.	4.2	17
39	A Generalized Formulation for Oilfield Development Optimization. IFAC-PapersOnLine, 2015, 48, 56-61.	0.9	4
40	Prior model identification during subsurface flow data integration with adaptive sparse representation techniques. Computational Geosciences, 2014, 18, 3-16.	2.4	16
41	Adaptive Conditioning of Multiple-Point Statistical Facies Simulation to Flow Data with Probability Maps. Mathematical Geosciences, 2014, 46, 573-595.	2.4	3
42	Inference of permeability heterogeneity from joint inversion of transient flow and temperature data. Water Resources Research, 2014, 50, 4710-4725.	4.2	19
43	Sparse Randomized Maximum Likelihood (SpRML) for subsurface flow model calibration and uncertainty quantification. Advances in Water Resources, 2014, 69, 23-37.	3.8	14
44	Efficient Production Optimization With Flow-Network Models. SPE Journal, 2014, 19, 1083-1095.	3.1	51
45	Optimization of Hydraulic Fracturing Design under Spatially Variable Shale Fracability. , 2014, , .		12
46	Hybrid Parameterization for Robust History Matching. SPE Journal, 2014, 19, 487-499.	3.1	11
47	A simultaneous perturbation stochastic approximation algorithm for coupled well placement and control optimization under geologic uncertainty. Computational Geosciences, 2013, 17, 167-188.	2.4	111
48	Learning sparse geologic dictionaries from low-rank representations of facies connectivity for flow model calibration. Water Resources Research, 2013, 49, 7088-7101.	4.2	12
49	A Bayesian mixture–modeling approach for flow–conditioned multiple–point statistical facies simulation from uncertain training images. Water Resources Research, 2013, 49, 328-342.	4.2	37
50	A variable-control well placement optimization for improved reservoir development. Computational Geosciences, 2012, 16, 871-889.	2.4	82
51	Sparse geologic dictionaries for subsurface flow model calibration: Part I. Inversion formulation. Advances in Water Resources, 2012, 39, 106-121.	3.8	78
52	Sparse geologic dictionaries for subsurface flow model calibration: Part II. Robustness to uncertainty. Advances in Water Resources, 2012, 39, 122-136.	3.8	43
53	Controlled CO_2 injection into heterogeneous geologic formations for improved solubility and residual trapping. Water Resources Research, 2012, 48, .	4.2	50
54	Inference of permeability distribution from injection–induced discrete microseismic events with kernel density estimation and ensemble Kalman filter. Water Resources Research, 2012, 48, .	4.2	24

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55	Subsurface Flow Model Calibration with a Spectral-Domain Parameterization Adaptive to Grid Connectivity and Prior Model Information. Mathematical Geosciences, 2012, 44, 673-710.	2.4	3
56	A generalized grid connectivityâ€"based parameterization for subsurface flow model calibration. Water Resources Research, 2011, 47, .	4.2	64
57	Wavelet Reconstruction of Geologic Facies From Nonlinear Dynamic Flow Measurements. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 1520-1535.	6.3	68
58	A Probability Conditioning Method (PCM) forÂNonlinear Flow Data Integration into Multipoint Statistical Facies Simulation. Mathematical Geosciences, 2011, 43, 133-164.	2.4	97
59	Compressed History Matching: Exploiting Transform-Domain Sparsity for Regularization ofÂNonlinear Dynamic Data Integration Problems. Mathematical Geosciences, 2010, 42, 1-27.	2.4	83
60	A sparse Bayesian framework for conditioning uncertain geologic models to nonlinear flow measurements. Advances in Water Resources, 2010, 33, 1024-1042.	3.8	23
61	Effective solution of nonlinear subsurface flow inverse problems in sparse bases. Inverse Problems, 2010, 26, 105016.	2.0	39
62	Transform-domain sparsity regularization for inverse problems in geosciences. Geophysics, 2009, 74, R69-R83.	2.6	68
63	Estimating Channelized-Reservoir Permeabilities With the Ensemble Kalman Filter: The Importance of Ensemble Design. SPE Journal, 2009, 14, 374-388.	3.1	72
64	Reservoir Characterization With the Discrete Cosine Transform. SPE Journal, 2009, 14, 182-201.	3.1	127
65	History matching with an ensemble Kalman filter and discrete cosine parameterization. Computational Geosciences, 2008, 12, 227-244.	2.4	123