Gowri Srinivasan

List of Publications by Year
in descending order

38 papers	809 citations	394421 19 h-index	501196 28 g-index
42 all docs	42 docs citations	42 times ranked	636 citing authors

#	Article	IF	Citations
1	From Fluid Flow to Coupled Processes in Fractured Rock: Recent Advances and New Frontiers. Reviews of Geophysics, 2022, 60, e2021RG000744.	23.0	61
2	Accelerating high-strain continuum-scale brittle fracture simulations with machine learning. Computational Materials Science, 2021, 186, 109959.	3.0	8
3	Multilevel Graph Partitioning for Three-Dimensional Discrete Fracture Network Flow Simulations. Mathematical Geosciences, 2021, 53, 1699-1724.	2.4	3
4	Assessment of Discretization Uncertainty Estimators Based On Grid Refinement Studies. Journal of Verification, Validation and Uncertainty Quantification, 2021, , .	0.4	0
5	The combined plastic and discrete fracture deformation framework for finiteâ€discrete element methods. International Journal for Numerical Methods in Engineering, 2020, 121, 1020-1035.	2.8	29
6	Transient flow modeling in fractured media using graphs. Physical Review E, 2020, 102, 052310.	2.1	4
7	Towards real-time forecasting of natural gas production by harnessing graph theory for stochastic discrete fracture networks. Journal of Petroleum Science and Engineering, 2020, 195, 107791.	4.2	8
8	Machine learning techniques for fractured media. Advances in Geophysics, 2020, 61, 109-150.	2.8	8
9	Physics-informed machine learning for backbone identification in discrete fracture networks. Computational Geosciences, 2020, 24, 1429-1444.	2.4	6
10	A Probabilistic Clustering Approach for Identifying Primary Subnetworks of Discrete Fracture Networks with Quantified Uncertainty. SIAM-ASA Journal on Uncertainty Quantification, 2020, 8, 573-600.	2.0	6
11	Surrogate Models for Estimating Failure in Brittle and Quasi-Brittle Materials. Applied Sciences (Switzerland), 2019, 9, 2706.	2.5	11
12	Characterizing the impact of particle behavior at fracture intersections in three-dimensional discrete fracture networks. Physical Review E, 2019, 99, 013110.	2.1	21
13	Model reduction for fractured porous media: a machine learning approach for identifying main flow pathways. Computational Geosciences, 2019, 23, 617-629.	2.4	26
14	Matrix Diffusion in Fractured Media: New Insights Into Power Law Scaling of Breakthrough Curves. Geophysical Research Letters, 2019, 46, 13785-13795.	4.0	30
15	Reduced-order modeling through machine learning and graph-theoretic approaches for brittle fracture applications. Computational Materials Science, 2019, 157, 87-98.	3.0	33
16	Branching of hydraulic cracks enabling permeability of gas or oil shale with closed natural fractures. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1532-1537.	7.1	49
17	Modeling flow and transport in fracture networks using graphs. Physical Review E, 2018, 97, 033304.	2.1	41
18	Identifying Backbones in Three-Dimensional Discrete Fracture Networks: A Bipartite Graph-Based Approach. Multiscale Modeling and Simulation, 2018, 16, 1948-1968.	1.6	34

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19	Robust system size reduction of discrete fracture networks: a multi-fidelity method that preserves transport characteristics. Computational Geosciences, 2018, 22, 1515-1526.	2.4	17
20	Efficient Monte Carlo With Graphâ€Based Subsurface Flow and Transport Models. Water Resources Research, 2018, 54, 3758-3766.	4.2	27
21	Advancing Graphâ€Based Algorithms for Predicting Flow and Transport in Fractured Rock. Water Resources Research, 2018, 54, 6085-6099.	4.2	37
22	Machine learning for graph-based representations of three-dimensional discrete fracture networks. Computational Geosciences, 2018, 22, 695-710.	2.4	49
23	Quantifying Topological Uncertainty in Fractured Systems using Graph Theory and Machine Learning. Scientific Reports, 2018, 8, 11665.	3.3	38
24	Extracting Hydrocarbon From Shale: An Investigation of the Factors That Influence the Decline and the Tail of the Production Curve. Water Resources Research, 2018, 54, 3748-3757.	4.2	9
25	Learning on Graphs for Predictions of Fracture Propagation, Flow and Transport. , 2017, , .		4
26	Predictions of first passage times in sparse discrete fracture networks using graph-based reductions. Physical Review E, 2017, 96, 013304.	2.1	46
27	Existence, stability and dynamics of discrete solitary waves in a binary waveguide array. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 295205.	2.1	3
28	Approximate models for the ion-kinetic regime in inertial-confinement-fusion capsule implosions. Physics of Plasmas, 2015, 22, 052707.	1.9	38
29	Predicting Dynamic Trends of the Atlantic Meridional Overturning Circulation for Transient and Stochastic Forcing Effects. SIAM-ASA Journal on Uncertainty Quantification, 2014, 2, 585-606.	2.0	1
30	On the Reconstruction of Darcy Velocity in Finite-Volume Methods. Transport in Porous Media, 2013, 96, 337-351.	2.6	7
31	Breakthrough of contaminant plumes in saturated volcanic rock: implications from the <scp>Y</scp>ucca <scp>M</scp>ountain site. Geofluids, 2013, 13, 273-282.	0.7	6
32	Lagrangian models of reactive transport in heterogeneous porous media with uncertain properties. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 1154-1174.	2.1	22
33	Travel time approach to kinetically sorbing solute by diverging radial flows through heterogeneous porous formations. Water Resources Research, 2012, 48, .	4.2	24
34	Convolution-based particle tracking method for transient flow. Computational Geosciences, 2012, 16, 551-563.	2.4	5
35	A particle tracking transport method for the simulation of resident and flux-averaged concentration of solute plumes in groundwater models. Computational Geosciences, 2010, 14, 779-792.	2.4	20
36	Random walk particle tracking simulations of non-Fickian transport in heterogeneous media. Journal of Computational Physics, 2010, 229, 4304-4314.	3.8	41

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37	Nonlinear localization of light in disordered optical fiber arrays. Physical Review A, 2008, 77, .	2.5	7
38	Quantification of uncertainty in geochemical reactions. Water Resources Research, 2007, 43, .	4.2	30