Klaus Mosegaard

List of Publications by Year
in descending order

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55 papers	3,889 citations	279798 23 h-index	206112 48 g-index
65 all docs	65 docs citations	65 times ranked	3356 citing authors

#	Article	IF	Citations
1	Monte Carlo sampling of solutions to inverse problems. Journal of Geophysical Research, 1995, 100, 12431-12447.	3.3	1,028
2	Monte Carlo methods in geophysical inverse problems. Reviews of Geophysics, 2002, 40, 3-1.	23.0	662
3	Heat Flux Anomalies in Antarctica Revealed by Satellite Magnetic Data. Science, 2005, 309, 464-467.	12.6	263
4	Monte Carlo analysis of inverse problems. Inverse Problems, 2002, 18, R29-R54.	2.0	261
5	Compressive beamforming. Journal of the Acoustical Society of America, 2014, 136, 260-271.	1.1	255
6	16 Probabilistic approach to inverse problems. International Geophysics, 2002, , 237-265.	0.6	155
7	Linear inverse Gaussian theory and geostatistics. Geophysics, 2006, 71, R101-R111.	2.6	130
8	Depth to Moho in Greenland: receiver-function analysis suggests two Proterozoic blocks in Greenland. Earth and Planetary Science Letters, 2003, 205, 379-393.	4.4	98
9	A SIMULATED ANNEALING APPROACH TO SEISMIC MODEL OPTIMIZATION WITH SPARSE PRIOR INFORMATION1. Geophysical Prospecting, 1991, 39, 599-611.	1.9	95
10	Inverse problems with non-trivial priors: efficient solution through sequential Gibbs sampling. Computational Geosciences, 2012, 16, 593-611.	2.4	95
11	Resolution analysis of general inverse problems through inverse Monte Carlo sampling. Inverse Problems, 1998, 14, 405-426.	2.0	88
12	Monte Carlo full-waveform inversion of crosshole GPR data using multiple-point geostatistical a priori information. Geophysics, 2012, 77, H19-H31.	2.6	73
13	Accounting for imperfect forward modeling in geophysical inverse problems â€" Exemplified for crosshole tomography. Geophysics, 2014, 79, H1-H21.	2.6	63
14	On lumped models for thermodynamic properties of simulated annealing problems. Journal De Physique, 1988, 49, 1485-1492.	1.8	56
15	A first detailed look at the Greenland lithosphere and upper mantle, using Rayleigh wave tomography. Geophysical Journal International, 2004, 158, 267-286.	2.4	45
16	Monte Carlo estimation and resolution analysis of seismic background velocities. Journal of Geophysical Research, 1991, 96, 20289-20299.	3.3	44
17	SIPPI: A Matlab toolbox for sampling the solution to inverse problems with complex prior information. Computers and Geosciences, 2013, 52, 470-480.	4.2	42
18	VISIM: Sequential simulation for linear inverse problems. Computers and Geosciences, 2008, 34, 53-76.	4.2	41

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19	Monte Carlo reservoir analysis combining seismic reflection data and informed priors. Geophysics, 2015, 80, R31-R41.	2.6	38
20	SIPPI: A Matlab toolbox for sampling the solution to inverse problems with complex prior information. Computers and Geosciences, 2013, 52, 481-492.	4.2	37
21	Attribute-guided well-log interpolation applied to low-frequency impedance estimation. Geophysics, 2008, 73, R83-R95.	2.6	31
22	A Frequency Matching Method: Solving Inverse Problems by Use of Geologically Realistic Prior Information. Mathematical Geosciences, 2012, 44, 783-803.	2.4	26
23	Piecewise Polynomial Solutions Without a priori Break Points. Numerical Linear Algebra With Applications, 1996, 3, 513-524.	1.6	24
24	Monte Carlo analysis of seismic reflections from Moho and the W reflector. Journal of Geophysical Research, 1997, 102, 2969-2981.	3.3	24
25	Multiple point statistical simulation using uncertain (soft) conditional data. Computers and Geosciences, 2018, 114, 1-10.	4.2	21
26	Quest for consistency, symmetry, and simplicity â€" The legacy of Albert Tarantola. Geophysics, 2011, 76, W51-W61.	2.6	17
27	Event-based low-frequency impedance modeling using well logs and seismic attributes. The Leading Edge, 2008, 27, 592-603.	0.7	12
28	Probabilistic analysis of implicit inverse problems. Inverse Problems, 1999, 15, 573-583.	2.0	11
29	History Matching Through a Smooth Formulation of Multiple-Point Statistics. Mathematical Geosciences, 2015, 47, 397-416.	2.4	11
30	Informed proposal Monte Carlo. Geophysical Journal International, 2021, 226, 1239-1248.	2.4	11
31	Improving the Pattern Reproducibility of Multiple-Point-Based Prior Models Using Frequency Matching. Mathematical Geosciences, 2015, 47, 317-343.	2.4	10
32	Application of Bayesian Generative Adversarial Networks to Geological Facies Modeling. Mathematical Geosciences, 2022, 54, 831-855.	2.4	10
33	Seismic inversion through Tabu Search1. Geophysical Prospecting, 1996, 44, 555-570.	1.9	9
34	Variations of shear-wave splitting in Greenland: Mantle anisotropy and possible impact of the Iceland plume. Tectonophysics, 2008, 462, 137-148.	2.2	9
35	Limits to Nonlinear Inversion. Lecture Notes in Computer Science, 2012, , 11-21.	1.3	9
36	Mixedâ€point geostatistical simulation: A combination of twoâ€•and multipleâ€point geostatistics. Geophysical Research Letters, 2016, 43, 9030-9037.	4.0	8

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37	Markov chain Monte Carlo for petrophysical inversion. Geophysics, 2022, 87, M13-M24.	2.6	7
38	Joint Inversion of Receiver Functions and Apparent Incidence Angles for Sparse Seismic Data. Earth and Space Science, 2021, 8, e2021EA001733.	2.6	5
39	Multi-step samplers for improving efficiency in probabilistic geophysical inference. , 2000, , 50-67.		4
40	Resolution studies of fluid flow models near the core-mantle boundary using Bayesian inversion. , 2000, , 255-275.		4
41	Modeling and detection of oil in sea water. Journal of the Acoustical Society of America, 2013, 134, 2790-2798.	1.1	4
42	Upscaling of outcrop information for improved reservoir modelling â€“ exemplified by a case study on chalk. Petroleum Geoscience, 2021, 27, .	1.5	4
43	Assessing uncertainty in geophysical problems â€” Introduction. Geophysics, 2013, 78, WB1-WB2.	2.6	3
44	A General Probabilistic Approach for Inference of Gaussian Model Parameters from Noisy Data of Point and Volume Support. Mathematical Geosciences, 2015, 47, 843-865.	2.4	3
45	Magnetic Anomalies Caused by 2D Polygonal Structures With Uniform Arbitrary Polarization: New Insights From Analytical/Numerical Comparison Among Available Algorithm Formulations. Geophysical Research Letters, 2021, 48, e2020GL091732.	4.0	3
46	The feasibility of high-temperature aquifer thermal energy storage in Denmark: the Gassum Formation in the Stenlille structure. Bulletin of the Geological Society of Denmark, 0, 68, 133-154.	1.1	3
47	Monte Carlo full waveform inversion of tomographic crosshole data using complex geostatistical a priori information. , 2010, , .		2
48	Reservoir Modeling Combining Geostatistics with Markov Chain Monte Carlo Inversion. Lecture Notes in Earth System Sciences, 2014, , 683-687.	0.6	2
49	History Matching with Geostatistical Prior: A Smooth Formulation. Lecture Notes in Earth System Sciences, 2014, , 703-707.	0.6	2
50	Quantitative seismic interpretation of the Lower Cretaceous reservoirs in the Valdemar Field, Danish North Sea. Petroleum Geoscience, 2021, 27, .	1.5	1
51	Improving multiple-point-based a priori models for inverse problems by combining Sequential Simulation with the Frequency Matching Method. , 2012, , .		1
52	Spatially correlated Markov chain Monte Carlo method for petrophysical inversion. , 2021, , .		0
53	Subsurface property interpolation in multi attribute space â€•Porosities on the South Arne Field.. , 2006, , .		0
54	Revealing Multiple Geological Scenarios Through Unsupervised Clustering of Posterior Realizations from Reflection Seismic Inversion. Quantitative Geology and Geostatistics, 2017, , 541-555.	0.1	0

#	Article	IF	Citations
55	Evolution of the stress and strain field in the tyra field during the Post-Chalk Deposition and seismic inversion of fault zone using informed-proposal Monte Carlo. Applied Computing and Geosciences, 2022, 14, 100085.	2.2	0