# Xiaodong Luo

List of Publications by Year
in descending order

| 69 papers | 1,384 citations | 331670 21 h-index | 361022 35 g-index |
| --- | --- | --- | --- |
| 70 all docs | 70 docs citations | 70 times ranked | 867 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Ensemble Kalman filtering with residual nudging. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 64, 17130. | 1.7 | 12 |
| 2 | Data assimilation with soft constraints (DASC) through a generalized iterative ensemble smoother. Computational Geosciences, 2022, 26, 571-594. | 2.4 | 3 |
| 3 | Joint History Matching of Production, Tracer, and 4D Seismic Data in a 3D Field-Scale Case Study. , 2022, , . | | 0 |
| 4 | Improving pseudo-optimal Kalman-gain localization using the random shuffle method. Journal of Petroleum Science and Engineering, 2022, 215, 110589. | 4.2 | 3 |
| 5 | Accounting for model errors of rock physics models in 4D seismic history matching problems: A perspective of machine learning. Journal of Petroleum Science and Engineering, 2021, 196, 107961. | 4.2 | 11 |
| 6 | Handling Big Models and Big Data Sets in History-Matching Problems through an Adaptive Local Analysis Scheme. SPE Journal, 2021, 26, 973-992. | 3.1 | 13 |
| 7 | Data assimilation with multiple types of observation boreholes via the ensemble Kalman filter embedded within stochastic moment equations. Hydrology and Earth System Sciences, 2021, 25, 1689-1709. | 4.9 | 4 |
| 8 | Novel iterative ensemble smoothers derived from a class of generalized cost functions. Computational Geosciences, 2021, 25, 1159-1189. | 2.4 | 16 |
| 9 | Editorial: Data Science Applications to Inverse and Optimization Problems in Earth Science. Frontiers in Applied Mathematics and Statistics, 2021, 7, . | 1.3 | 1 |
| 10 | Automatic and adaptive localization for ensemble-based history matching. Journal of Petroleum Science and Engineering, 2020, 184, 106559. | 4.2 | 33 |
| 11 | Simultaneous assimilation of production and seismic data: application to the Norne field. Computational Geosciences, 2020, 24, 907-920. | 2.4 | 30 |
| 12 | 4D seismic history matching: Assessing the use of a dictionary learning based sparse representation method. Journal of Petroleum Science and Engineering, 2020, 195, 107763. | 4.2 | 20 |
| 13 | Accounting for Model Errors of Rock Physics Models in 4D Seismic History Matching Problems: A Perspective of Machine Learning. , 2020, , . | | 0 |
| 14 | Decoupling of changes in pressure-saturation and porosity fields from time-lapse seismic data using an ensemble based method for a compacting chalk reservoir. , 2020, , . | | 0 |
| 15 | Novel Ensemble Data Assimilation Algorithms Derived from A Class of Generalized Cost Functions. , 2020, , . | | 0 |
| 16 | Ensemble-based kernel learning for a class of data assimilation problems with imperfect forward simulators. PLoS ONE, 2019, 14, e0219247. | 2.5 | 22 |
| 17 | Sparse Representation of 4D Seismic Signal Based on Dictionary Learning. , 2019, , . | | 3 |
| 18 | A decision support system for multi-target geosteering. Journal of Petroleum Science and Engineering, 2019, 183, 106381. | 4.2 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | History Matching the Full Norne Field Model Using Seismic and Production Data. SPE Journal, 2019, 24, 1452-1467. | 3.1 | 35 |
| 20 | Correlation-Based Adaptive Localization for Ensemble-Based History Matching: Applied To the Norne Field Case Study. SPE Reservoir Evaluation and Engineering, 2019, 22, 1084-1109. | 1.8 | 24 |
| 21 | Uncertainty quantification in non-linear seismic inversion: A comparison of three different methods.. , 2019, , . | | 0 |
| 22 | Correlation-Based Adaptive Localization With Applications to Ensemble-Based 4D-Seismic History Matching. SPE Journal, 2018, 23, 396-427. | 3.1 | 52 |
| 23 | An Interactive Decision Support System for Geosteering Operations. , 2018, , . | | 4 |
| 24 | History Matching Of Real Production And Seismic Data In The Norne Field. , 2018, , . | | 5 |
| 25 | Efficient big data assimilation through sparse representation: A 3D benchmark case study in petroleum engineering. PLoS ONE, 2018, 13, e0198586. | 2.5 | 37 |
| 26 | Correlation-Based Adaptive Localization for Ensemble-Based History Matching: Applied to the Norne Field Case Study. , 2018, , . | | 1 |
| 27 | Towards Automatic And Adaptive Localization For Ensemble-Based History Matching. , 2018, , . | | 4 |
| 28 | History Matching Using an Iterative Ensemble Smoother with Correlation-Based Adaptive Localization - A Real Field Case S. , 2018, , . | | 0 |
| 29 | Petrophysical Parameters Inversion From Seismic Data Using An Ensemble-Based Method - A Case Study From A Compacting Reservoir. , 2018, , . | | 1 |
| 30 | An Ensemble 4D-Seismic History-Matching Framework With Sparse Representation Based On Wavelet Multiresolution Analysis. SPE Journal, 2017, 22, 985-1010. | 3.1 | 55 |
| 31 | Data Driven Adaptive Localization With Applications To Ensemble-Based 4D Seismic History Matching. , 2017, , . | | 7 |
| 32 | Estimating observation error covariance matrix of seismic data from a perspective of image denoising. Computational Geosciences, 2017, 21, 205-222. | 2.4 | 31 |
| 33 | Estimation of pressure-saturation and porosity fields from seismic acoustic impedance data using an ensemble-based method. , 2017, , . | | 1 |
| 34 | Estimation of Pressure-Saturation and Porosity Fields from Seismic AVA Data Using an Ensemble Based Method. , 2017, , . | | 2 |
| 35 | Estimation of Production Rates by Use of Transient Well-Flow Modeling and the Auxiliary Particle Filter: Full-Scale Applications. SPE Production and Operations, 2016, 31, 163-175. | 0.6 | 7 |
| 36 | An Ensemble 4D Seismic History Matching Framework with Sparse Representation Based on Wavelet Multiresolution Analysis. , 2016, , . | | 5 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 37 | Ensemble based 4D seismic history matching using a sparse representation of AVA data. , 2016, , . | | 5 |
| 38 | Time-lapse CSEM reservoir monitoring of the Norne field with vertical dipoles. , 2016, , . | | 6 |
| 39 | An Ensemble 4D Seismic History Matching Framework with Wavelet Multiresolution Analysis - A 3D Benchmark Case Study. , 2016, , . | | 11 |
| 40 | Estimating Observation Error Covariance Matrix of Seismic Data from a Perspective of Image Processing. , 2016, , . | | 0 |
| 41 | Iterative Ensemble Smoother as an Approximate Solution to a Regularized Minimum-Average-Cost Problem: Theory and Applications. SPE Journal, 2015, 20, 962-982. | 3.1 | 98 |
| 42 | Mitigating Observation Perturbation Sampling Errors in the Stochastic EnKF. Monthly Weather Review, 2015, 143, 2918-2936. | 1.4 | 52 |
| 43 | Ensemble Kalman Filtering with a Divided State-Space Strategy for Coupled Data Assimilation Problems*. Monthly Weather Review, 2014, 142, 4542-4558. | 1.4 | 13 |
| 44 | Toward an enhanced Bayesian estimation framework for multiphase flow soft-sensing. Inverse Problems, 2014, 30, 114012. | 2.0 | 9 |
| 45 | Ensemble Kalman Filtering with Residual Nudging: An Extension to State Estimation Problems with Nonlinear Observation Operators. Monthly Weather Review, 2014, 142, 3696-3712. | 1.4 | 14 |
| 46 | A Comparison of Ensemble Kalman Filters for Storm Surge Assimilation. Monthly Weather Review, 2014, 142, 2899-2914. | 1.4 | 19 |
| 47 | Efficient particle filtering through residual nudging. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 557-572. | 2.7 | 13 |
| 48 | Assessing a robust ensemble-based Kalman filter for efficient ecosystem data assimilation of the Cretan Sea. Journal of Marine Systems, 2013, 125, 90-100. | 2.1 | 20 |
| 49 | An Adjoint-Based Adaptive Ensemble Kalman Filter. Monthly Weather Review, 2013, 141, 3343-3359. | 1.4 | 9 |
| 50 | Improving Short-Range Ensemble Kalman Storm Surge Forecasting Using Robust Adaptive Inflation. Monthly Weather Review, 2013, 141, 2705-2720. | 1.4 | 19 |
| 51 | Covariance Inflation in the Ensemble Kalman Filter: A Residual Nudging Perspective and Some Implications. Monthly Weather Review, 2013, 141, 3360-3368. | 1.4 | 19 |
| 52 | Data Assimilation within the Advanced Circulation (ADCIRC) Modeling Framework for Hurricane Storm Surge Forecasting. Monthly Weather Review, 2012, 140, 2215-2231. | 1.4 | 26 |
| 53 | Particle Kalman Filtering: A Nonlinear Bayesian Framework for Ensemble Kalman Filters. Monthly Weather Review, 2012, 140, 528-542. | 1.4 | 88 |
| 54 | On a nonlinear Kalman filter with simplified divided difference approximation. Physica D: Nonlinear Phenomena, 2012, 241, 671-680. | 2.8 | 7 |

| # | Article | IF | Citations |
|---|---------|----|-----------| 
| 55 | Data assimilation using Bayesian filters and B-spline geological models. Journal of Physics: Conference Series, 2011, 290, 012004. | 0.4 | 2 |
| 56 | Robust Ensemble Filtering and Its Relation to Covariance Inflation in the Ensemble Kalman Filter. Monthly Weather Review, 2011, 139, 3938-3953. | 1.4 | 44 |
| 57 | Scaled unscented transform Gaussian sum filter: Theory and application. Physica D: Nonlinear Phenomena, 2010, 239, 684-701. | 2.8 | 27 |
| 58 | Reply to "Comment on 'Ensemble Kalman filter with the unscented transform'". Physica D: Nonlinear Phenomena, 2010, 239, 1662-1664. | 2.8 | 3 |
| 59 | Particle Kalman Filtering: A Nonlinear Framework for Ensemble Kalman Filters. , 2010, , . | | 0 |
| 60 | On Ensemble Nonlinear Kalman Filtering with Symmetric Analysis Ensembles. , 2010, , . | | 0 |
| 61 | Ensemble Kalman filter with the unscented transform. Physica D: Nonlinear Phenomena, 2009, 238, 549-562. | 2.8 | 58 |
| 62 | Characterizing pseudoperiodic time series through the complex network approach. Physica D: Nonlinear Phenomena, 2008, 237, 2856-2865. | 2.8 | 183 |
| 63 | Detecting temporal and spatial correlations in pseudoperiodic time series. Physical Review E, 2007, 75, 016218. | 2.1 | 32 |
| 64 | Reducing colored noise for chaotic time series in the local phase space. Physical Review E, 2007, 76, 026211. | 2.1 | 9 |
| 65 | ON A DYNAMICAL SYSTEM WITH MULTIPLE CHAOTIC ATTRACTORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3235-3251. | 1.7 | 45 |
| 66 | Detecting chaos in pseudoperiodic time series without embedding. Physical Review E, 2006, 73, 016216. | 2.1 | 50 |
| 67 | Testing for nonlinearity in time series without the Fourier transform. Physical Review E, 2005, 72, 055201. | 2.1 | 7 |
| 68 | Optimal phase-space projection for noise reduction. Physical Review E, 2005, 72, 046710. | 2.1 | 7 |
| 69 | Surrogate test to distinguish between chaotic and pseudoperiodic time series. Physical Review E, 2005, 71, 026230. | 2.1 | 29 |