

# Jan Dirk D Jansen

## List of Publications by Year in descending order

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104  
papers

3,387  
citations

236925

25  
h-index

161849

54  
g-index

109  
all docs

109  
docs citations

109  
times ranked

1155  
citing authors

#	ARTICLE	IF	CITATIONS
1	Smoothed embedded finite-volume method (sEFVM) for modeling contact mechanics in deformable faulted and fractured porous media. <i>Journal of Computational Physics</i> , 2022, 459, 111143.	3.8	5
2	Induced aseismic slip and the onset of seismicity in displaced faults. <i>Geologie En Mijnbouw/Netherlands Journal of Geosciences</i> , 2022, 101, .	0.9	7
3	Accelerating the solution of linear systems appearing in two-phase reservoir simulation by the use of POD-based deflation methods. <i>Computational Geosciences</i> , 2021, 25, 1621-1645.	2.4	1
4	A Collocated Finite Volume Scheme for High-Performance Simulation of Induced Seismicity in Geo-Energy Applications. , 2021, , .		2
5	Informed production optimization in hydrocarbon reservoirs. <i>Optimization and Engineering</i> , 2020, 21, 25-48.	2.4	7
6	A multiscale method for data assimilation. <i>Computational Geosciences</i> , 2020, 24, 425-442.	2.4	8
7	Introduction to the special issue: Overview of OLYMPUS Optimization Benchmark Challenge. <i>Computational Geosciences</i> , 2020, 24, 1933-1941.	2.4	17
8	Insights From Closed-Form Expressions for Injection- and Production-Induced Stresses in Displaced Faults. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 7193-7212.	3.4	22
9	Iterative multiscale gradient computation for heterogeneous subsurface flow. <i>Advances in Water Resources</i> , 2019, 129, 210-221.	3.8	1
10	Adjoint-Based Adaptive Convergence Control of the Iterative Finite Volume Multiscale Method. , 2019, , .		0
11	An Efficient Robust Optimization Workflow using Multiscale Simulation and Stochastic Gradients. <i>Journal of Petroleum Science and Engineering</i> , 2019, 172, 247-258.	4.2	8
12	Influence of foam on the stability characteristics of immiscible flow in porous media. <i>Physics of Fluids</i> , 2018, 30, 014106.	4.0	7
13	The Small Effect of Poroelastic Pressure Transients on Triggering of Production-Induced Earthquakes in the Groningen Natural Gas Field. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 401-417.	3.4	17
14	On POD-based Deflation Vectors for DPCG applied to porous media problems. <i>Journal of Computational and Applied Mathematics</i> , 2018, 330, 193-213.	2.0	7
15	Computing derivative information of sequentially coupled subsurface models. <i>Computational Geosciences</i> , 2018, 22, 1527-1541.	2.4	2
16	Use of reduced-order models in well control optimization. <i>Optimization and Engineering</i> , 2017, 18, 105-132.	2.4	66
17	Recent Developments in Closed-Loop Approaches for Real-Time Mining and Petroleum Extraction. <i>Mathematical Geosciences</i> , 2017, 49, 277-306.	2.4	18
18	Improving the Computational Efficiency of Approximate Gradients Using a Multiscale Reservoir Simulation Framework. , 2017, , .		1

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19	Low-Dimensional Tensor Representations for the Estimation of Petrophysical Reservoir Parameters. , 2017, , .		4
20	Multiscale gradient computation for flow in heterogeneous porous media. Journal of Computational Physics, 2017, 336, 644-663.	3.8	16
21	Influence of Foam on the Stability Characteristics of Immiscible Flow in Porous Media. , 2017, , .		1
22	An adaptive robust optimization scheme for water-flooding optimization in oil reservoirs using residual analysis * *The authors acknowledge financial support from the Recovery Factory program sponsored by Shell Global Solutions International.. IFAC-PapersOnLine, 2017, 50, 11275-11280.	0.9	2
23	Multiscale Gradient Computation for Multiphase Flow in Porous Media. , 2017, , .		4
24	Flow-based dissimilarity measures for reservoir models: a spatial-temporal tensor approach. Computational Geosciences, 2017, 21, 645-663.	2.4	5
25	Handling Geological and Economic Uncertainties in Balancing Short-Term and Long-Term Objectives in Waterflooding Optimization. SPE Journal, 2017, 22, 1313-1325.	3.1	16
26	A Stochastic Simplex Approximate Gradient (StoSAG) for optimization under uncertainty. International Journal for Numerical Methods in Engineering, 2017, 109, 1756-1776.	2.8	121
27	Research into induced seismicity in the Groningen field â€™ further studies. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2017, 96, s279-s284.	0.9	2
28	Identifiability of Location and Magnitude of Flow Barriers in Slightly Compressible Flow. SPE Journal, 2016, 21, 0899-0908.	3.1	3
29	Value of information in closed-loop reservoir management. Computational Geosciences, 2016, 20, 737-749.	2.4	34
30	Determination of lower and upper bounds of predicted production from history-matched models. Computational Geosciences, 2016, 20, 1061-1073.	2.4	0
31	Robust optimization of water-flooding in oil reservoirs using risk management tools. IFAC-PapersOnLine, 2016, 49, 133-138.	0.9	13
32	Generation of a Pareto front for a bi-objective water flooding optimization problem using approximate ensemble gradients. Journal of Petroleum Science and Engineering, 2016, 147, 249-260.	4.2	22
33	Optimal input experiment design and parameter estimation in core-scale pressure oscillation experiments. Journal of Hydrology, 2016, 534, 534-552.	5.4	6
34	Handling risk of uncertainty in model-based production optimization: a robust hierarchical approach. IFAC-PapersOnLine, 2015, 48, 248-253.	0.9	3
35	Underground Reservoir Identification Using Generalized Wellbore Data. IFAC-PapersOnLine, 2015, 48, 307-308.	0.9	0
36	Discerning In-Situ Performance of an EOR Agent In the Midst of Geological Uncertainty: II. Fluvial-Deposit Reservoir. , 2015, , .		0

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37	Risk management in oil reservoir water-flooding under economic uncertainty. , 2015, , .		11
38	Model and Economic Uncertainties in Balancing Short-Term and Long-Term Objectives in Water-Flooding Optimization. , 2015, , .		12
39	Value of Multiple Production Measurements and Water Front Tracking in Closed-Loop Reservoir Management. , 2015, , .		6
40	Ensemble-Based Multiobjective Optimization of On/Off Control Devices Under Geological Uncertainty. SPE Reservoir Evaluation and Engineering, 2015, 18, 554-563.	1.8	37
41	An improved multiscale method for life-cycle production optimization. Computational Geosciences, 2015, 19, 1139-1157.	2.4	10
42	Tensor-based reduced order modeling in reservoir engineering: An application to production optimization—The authors acknowledge financial support from the Recovery Factory program sponsored by Shell Global Solutions International.. IFAC-PapersOnLine, 2015, 48, 254-259.	0.9	8
43	The egg model “a geological ensemble for reservoir simulation. Geoscience Data Journal, 2014, 1, 192-195.	4.4	127
44	Adjoint formulation and constraint handling for gradient-based optimization of compositional reservoir flow. Computational Geosciences, 2014, 18, 117-137.	2.4	49
45	Ensemble-based hierarchical multi-objective production optimization of smart wells. Computational Geosciences, 2014, 18, 449-461.	2.4	23
46	Challenges in adjoint-based optimization of a foam EOR process. Computational Geosciences, 2014, 18, 563-577.	2.4	13
47	Controllability and observability in two-phase porous media flow. Computational Geosciences, 2013, 17, 773-788.	2.4	10
48	A Systems Description of Flow Through Porous Media. SpringerBriefs in Earth Sciences, 2013, , .	0.5	32
49	Welcome Prof. Al Reynolds and Prof. Mojdeh Delshad. Computational Geosciences, 2013, 17, 887-887.	2.4	0
50	Porous-Media Flow. SpringerBriefs in Earth Sciences, 2013, , 1-37.	0.5	0
51	A Two-Level Strategy to Realize Life-Cycle Production Optimization in an Operational Setting. SPE Journal, 2013, 18, 1057-1066.	3.1	23
52	Recent developments in model-based optimization and control of subsurface flow in oil reservoirs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 189-200.	0.4	12
53	Estimating the Specific Productivity Index in Horizontal Wells From Distributed-Pressure Measurements Using an Adjoint-Based Minimization Algorithm. SPE Journal, 2012, 17, 742-751.	3.1	7
54	A Two-Level Strategy to Realize Life-Cycle Production Optimization in an Operational Setting. , 2012, , .		4

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55	A system-theoretical approach to selective grid coarsening of reservoir models. Computational Geosciences, 2012, 16, 159-176.	2.4	6
56	Hierarchical Long-Term and Short-Term Production Optimization. SPE Journal, 2011, 16, 191-199.	3.1	108
57	Optimization of the Water-Flooding Process in a Small 2D Horizontal Oil Reservoir by Direct Transcription. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10863-10868.	0.4	5
58	Parameter identification in large-scale models for oil and gas production. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10857-10862.	0.4	5
59	Model-reduced gradient-based history matching. Computational Geosciences, 2011, 15, 135-153.	2.4	42
60	Editorial: Welcome Prof. Louis Durlofsky. Computational Geosciences, 2011, 15, 603-603.	2.4	0
61	Adjoint-based optimization of multi-phase flow through porous media – A review. Computers and Fluids, 2011, 46, 40-51.	2.5	177
62	Pressure Preconditioning Using Proper Orthogonal Decomposition. , 2011, , .		8
63	Optimization of Smart Wells in the St. Joseph Field. SPE Reservoir Evaluation and Engineering, 2010, 13, 588-595.	1.8	21
64	The Choice of a –Best–™ Assisted History Matching Algorithm. , 2010, , .		1
65	Integrated dynamic optimization and control in reservoir engineering using locally identified linear models. , 2010, , .		7
66	Control-Relevant Upscaling. SPE Journal, 2010, 15, 471-479.	3.1	7
67	Lexicographic optimization of multiple economic objectives in oil production from petroleum reservoirs. , 2010, , .		1
68	Observation Sensitivity in Computer-assisted History Matching. , 2010, , .		6
69	Robust Waterflooding Optimization of Multiple Geological Scenarios. SPE Journal, 2009, 14, 202-210.	3.1	232
70	Model-based control and optimization of large scale physical systems - Challenges in reservoir engineering. , 2009, , .		4
71	Closed-Loop Reservoir Management. , 2009, , .		182
72	An evaluation of relevant geological parameters for predicting the flow behaviour of channelized reservoirs. Petroleum Geoscience, 2009, 15, 345-354.	1.5	6

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73	Control Relevant Selective Grid Coarsening. , 2009, , .		1
74	Hierarchical Economic Optimization of Oil Production from Petroleum Reservoirs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 738-743.	0.4	6
75	Optimizing Recovery for Waterflooding Under Dynamic Induced Fracturing Conditions. SPE Reservoir Evaluation and Engineering, 2009, 12, 671-682.	1.8	36
76	Adjoint-Based Well Trajectory Optimization in a Thin Oil Rim. , 2009, , .		31
77	Hierarchical Long Term and Short Term Production Optimization. , 2009, , .		10
78	Front Controllability in Two-Phase Porous Media Flow. , 2009, , 203-219.		5
79	Controllability, observability and identifiability in single-phase porous media flow. Computational Geosciences, 2008, 12, 605-622.	2.4	34
80	Model-based control of multiphase flow in subsurface oil reservoirs. Journal of Process Control, 2008, 18, 846-855.	3.3	121
81	Adjoint-Based Well-Placement Optimization Under Production Constraints. SPE Journal, 2008, 13, 392-399.	3.1	156
82	Control-Relevant Upscaling. , 2008, , .		3
83	Determining Identifiable Parameterizations for Large-scale Physical Models in Reservoir Engineering. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 11421-11426.	0.4	20
84	Multiscale Regularization of Flooding Optimization for Smart Field Management. SPE Journal, 2008, 13, 195-204.	3.1	31
85	MODEL-BASED CONTROL OF SUBSURFACE FLOW. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 39-50.	0.4	0
86	Bang-bang control and singular arcs in reservoir flooding. Journal of Petroleum Science and Engineering, 2007, 58, 186-200.	4.2	72
87	Application of the representer method for parameter estimation in numerical reservoir models. Computational Geosciences, 2007, 11, 73-85.	2.4	11
88	Robust optimization of oil reservoir flooding. , 2006, , .		6
89	Optimization of Commingled Production Using Infinitely Variable Inflow Control Valves. SPE Production and Operations, 2006, 21, 293-301.	0.6	32
90	Robust Waterflooding Optimization of Multiple Geological Scenarios. , 2006, , .		30

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91	Waterflooding using closed-loop control. Computational Geosciences, 2006, 10, 37-60.	2.4	105
92	Reduced-order optimal control of water flooding using proper orthogonal decomposition. Computational Geosciences, 2006, 10, 137-158.	2.4	142
93	Accelerating iterative solution methods using reduced-order models as solution predictors. International Journal for Numerical Methods in Engineering, 2006, 68, 525-541.	2.8	60
94	Data Assimilation in Reservoir Management Using the Representer Method and the Ensemble Kalman Filter. , 2006, , .		4
95	Probabilistic analysis of the value of a smart well for sequential production of a stacked reservoir. Journal of Petroleum Science and Engineering, 2004, 44, 155-172.	4.2	15
96	Generation of Low-Order Reservoir Models Using System-Theoretical Concepts. SPE Journal, 2004, 9, 202-218.	3.1	66
97	Dynamic Optimization of Waterflooding With Smart Wells Using Optimal Control Theory. SPE Journal, 2004, 9, 391-402.	3.1	333
98	A Semianalytical Model for Calculating Pressure Drop Along Horizontal Wells With Stinger Completions. SPE Journal, 2003, 8, 138-146.	3.1	12
99	Subspace identification of low-order reservoir models. Developments in Water Science, 2002, 47, 281-288.	0.1	6
100	Generation of Low-Order Reservoir Models Using POD, Empirical Grammians and Subspace Identification. , 2002, , cp-104-00027.		6
101	Use of Spherical Trigonometry to Compute Near-Well Flow through Irregular Grid Block Boundaries. Computational Geosciences, 2002, 6, 195-206.	2.4	3
102	Active damping of self-excited torsional vibrations in oil well drillstrings. Journal of Sound and Vibration, 1995, 179, 647-668.	3.9	205
103	Active Damping of Torsional Drillstring Vibrations With a Hydraulic Top Drive. SPE Drilling and Completion, 1995, 10, 250-254.	1.6	25
104	Non-linear rotor dynamics as applied to oilwell drillstring vibrations. Journal of Sound and Vibration, 1991, 147, 115-135.	3.9	137