

Niklas Linde

List of Publications by Year in descending order

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119
papers

4,923
citations

81900

39
h-index

110387

64
g-index

132
all docs

132
docs citations

132
times ranked

2945
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved hydrogeophysical characterization using joint inversion of cross-hole electrical resistance and ground-penetrating radar traveltime data. <i>Water Resources Research</i> , 2006, 42, .	4.2	270
2	Trainingâ€Image Based Geostatistical Inversion Using a Spatial Generative Adversarial Neural Network. <i>Water Resources Research</i> , 2018, 54, 381-406.	4.2	232
3	Electrokinetic coupling in unsaturated porous media. <i>Journal of Colloid and Interface Science</i> , 2007, 313, 315-327.	9.4	205
4	Chemico-electromechanical coupling in microporous media. <i>Journal of Colloid and Interface Science</i> , 2006, 302, 682-694.	9.4	172
5	Inversion using a new low-dimensional representation of complex binary geological media based on a deep neural network. <i>Advances in Water Resources</i> , 2017, 110, 387-405.	3.8	155
6	Geological realism in hydrogeological and geophysical inverse modeling: A review. <i>Advances in Water Resources</i> , 2015, 86, 86-101.	3.8	152
7	Zonation for 3D aquifer characterization based on joint inversions of multimethod crosshole geophysical data. <i>Geophysics</i> , 2010, 75, G53-G64.	2.6	134
8	Streaming current generation in two-phase flow conditions. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	122
9	3D crosshole ERT for aquifer characterization and monitoring of infiltrating river water. <i>Geophysics</i> , 2011, 76, G49-G59.	2.6	100
10	Constraining 3-D electrical resistance tomography with GPR reflection data for improved aquifer characterization. <i>Journal of Applied Geophysics</i> , 2012, 78, 68-76.	2.1	100
11	A Review of Geophysical Methods for Soil Structure Characterization. <i>Reviews of Geophysics</i> , 2018, 56, 672-697.	23.0	97
12	Derivation of Soilâ€™s Specific Streaming Potential Electrical Parameters from Hydrodynamic Characteristics of Partially Saturated Soils. <i>Vadose Zone Journal</i> , 2012, 11, .	2.2	95
13	Fullâ€waveform inversion of crossâ€hole groundâ€penetrating radar data to characterize a gravel aquifer close to the Thur River, Switzerland. <i>Near Surface Geophysics</i> , 2010, 8, 635-649.	1.2	92
14	Non-intrusive characterization of the redox potential of landfill leachate plumes from self-potential data. <i>Journal of Contaminant Hydrology</i> , 2007, 92, 274-292.	3.3	87
15	Imaging and quantifying salt-tracer transport in a riparian groundwater system by means of 3D ERT monitoring. <i>Geophysics</i> , 2012, 77, B207-B218.	2.6	83
16	On uncertainty quantification in hydrogeology and hydrogeophysics. <i>Advances in Water Resources</i> , 2017, 110, 166-181.	3.8	82
17	Joint inversion of crosshole radar and seismic traveltimes acquired at the South Oyster Bacterial Transport Site. <i>Geophysics</i> , 2008, 73, G29-G37.	2.6	78
18	3-D characterization of high-permeability zones in a gravel aquifer using 2-D crosshole GPR full-waveform inversion and waveguide detection. <i>Geophysical Journal International</i> , 2013, 195, 932-944.	2.4	76

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19	Inversion of tracer test data using tomographic constraints. <i>Water Resources Research</i> , 2006, 42, .	4.2	64
20	Redox potential distribution inferred from self-potential measurements associated with the corrosion of a burden metallic body. <i>Geophysical Prospecting</i> , 2008, 56, 269-282.	1.9	64
21	Inverting self-potential data for redox potentials of contaminant plumes. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	63
22	Long-Term Soil Structure Observatory for Monitoring Post-Compaction Evolution of Soil Structure. <i>Vadose Zone Journal</i> , 2017, 16, 1-16.	2.2	63
23	Structural joint inversion of time-lapse crosshole ERT and GPR traveltimes data. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	62
24	Critical Steps for the Continuing Advancement of Hydrogeophysics. <i>Eos</i> , 2009, 90, 200-200.	0.1	60
25	Two-dimensional probabilistic inversion of plane-wave electromagnetic data: methodology, model constraints and joint inversion with electrical resistivity data. <i>Geophysical Journal International</i> , 2014, 196, 1508-1524.	2.4	60
26	Local earthquake (LE) tomography with joint inversion for P- and S-wave velocities using structural constraints. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	59
27	Monitoring of saline tracer movement with vertically distributed self-potential measurements at the HOBE agricultural test site, Voulund, Denmark. <i>Journal of Hydrology</i> , 2015, 521, 314-327.	5.4	57
28	Estimation of the water table throughout a catchment using self-potential and piezometric data in a Bayesian framework. <i>Journal of Hydrology</i> , 2007, 334, 88-98.	5.4	56
29	Detection and localization of hydromechanical disturbances in a sandbox using the self-potential method. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	52
30	Chemical denudation in arctic-alpine Latnjavagge (Swedish Lapland) in relation to regolith as assessed by radio magnetotelluric-geophysical profiles. <i>Geomorphology</i> , 2004, 57, 303-319.	2.6	50
31	The borehole-fluid effect in electrical resistivity imaging. <i>Geophysics</i> , 2010, 75, F107-F114.	2.6	50
32	Estimating traveltimes and groundwater flow patterns using 3D time-lapse crosshole ERT imaging of electrical resistivity fluctuations induced by infiltrating river water. <i>Geophysics</i> , 2012, 77, E239-E250.	2.6	49
33	Towards improved instrumentation for assessing river-groundwater interactions in a restored river corridor. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 2531-2549.	4.9	47
34	Distributed Soil Moisture from Crosshole Ground-Penetrating Radar Travel Times using Stochastic Inversion. <i>Vadose Zone Journal</i> , 2013, 12, 1-16.	2.2	47
35	Conditioning of stochastic 3-D fracture networks to hydrological and geophysical data. <i>Advances in Water Resources</i> , 2013, 62, 79-89.	3.8	46
36	Morphological, hydrological, biogeochemical and ecological changes and challenges in river restoration – the Thur River case study. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 2449-2462.	4.9	46

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37	Summary statistics from training images as prior information in probabilistic inversion. <i>Geophysical Journal International</i> , 2015, 201, 157-171.	2.4	46
38	Mass conservative three-dimensional water tracer distribution from Markov chain Monte Carlo inversion of time-lapse ground-penetrating radar data. <i>Water Resources Research</i> , 2012, 48, .	4.2	45
39	Time-lapse cross-hole electrical resistivity tomography (CHERT) for monitoring seawater intrusion dynamics in a Mediterranean aquifer. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 2121-2139.	4.9	45
40	Fracture imaging within a granitic rock aquifer using multiple-offset single-hole and cross-hole GPR reflection data. <i>Journal of Applied Geophysics</i> , 2012, 78, 123-132.	2.1	43
41	Gradient-based deterministic inversion of geophysical data with generative adversarial networks: Is it feasible?. <i>Computers and Geosciences</i> , 2019, 133, 104333.	4.2	41
42	Inferring transport characteristics in a fractured rock aquifer by combining single-hole ground-penetrating radar reflection monitoring and tracer test data. <i>Water Resources Research</i> , 2012, 48, .	4.2	40
43	Structure-coupled joint inversion of geophysical and hydrological data. <i>Geophysics</i> , 2013, 78, ID1-ID14.	2.6	39
44	Probabilistic inference of multi-Gaussian fields from indirect hydrological data using circulant embedding and dimensionality reduction. <i>Water Resources Research</i> , 2015, 51, 4224-4243.	4.2	39
45	Image synthesis with graph cuts: a fast model proposal mechanism in probabilistic inversion. <i>Geophysical Journal International</i> , 2016, 204, 1179-1190.	2.4	38
46	Evidence of electrical anisotropy in limestone formations using the RMT technique. <i>Geophysics</i> , 2004, 69, 909-916.	2.6	36
47	Self-Potentials in Partially Saturated Media: The Importance of Explicit Modeling of Electrode Effects. <i>Vadose Zone Journal</i> , 2013, 12, 1-21.	2.2	36
48	Single-hole GPR reflection imaging of solute transport in a granitic aquifer. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	35
49	<i>Hydrogeophysics</i> . , 2011, , 401-434.		35
50	Seismoelectric effects due to mesoscopic heterogeneities. <i>Geophysical Research Letters</i> , 2013, 40, 2033-2037.	4.0	35
51	Probabilistic 3-D time-lapse inversion of magnetotelluric data: application to an enhanced geothermal system. <i>Geophysical Journal International</i> , 2015, 203, 1946-1960.	2.4	33
52	Streaming potential modeling in fractured rock: Insights into the identification of hydraulically active fractures. <i>Geophysical Research Letters</i> , 2016, 43, 4937-4944.	4.0	33
53	Self-potential investigations of a gravel bar in a restored river corridor. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 729-742.	4.9	32
54	Probabilistic electrical resistivity tomography of a CO ₂ sequestration analog. <i>Journal of Applied Geophysics</i> , 2014, 107, 80-92.	2.1	30

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55	Patch-based iterative conditional geostatistical simulation using graph cuts. <i>Water Resources Research</i> , 2016, 52, 6297-6320.	4.2	30
56	Hydrogeophysical characterization of transport processes in fractured rock by combining push-pull and single-hole ground penetrating radar experiments. <i>Water Resources Research</i> , 2016, 52, 938-953.	4.2	30
57	Bayesian model selection in hydrogeophysics: Application to conceptual subsurface models of the South Oyster Bacterial Transport Site, Virginia, USA. <i>Advances in Water Resources</i> , 2017, 102, 127-141.	3.8	30
58	Characterization of a fractured granite using radio magnetotelluric (RMT) data. <i>Geophysics</i> , 2004, 69, 1155-1165.	2.6	29
59	Conditioning of Multiple-Point Statistics Facies Simulations to Tomographic Images. <i>Mathematical Geosciences</i> , 2014, 46, 625-645.	2.4	28
60	Merging parallel tempering with sequential geostatistical resampling for improved posterior exploration of high-dimensional subsurface categorical fields. <i>Advances in Water Resources</i> , 2016, 90, 57-69.	3.8	28
61	Impact of small-scale saline tracer heterogeneity on electrical resistivity monitoring in fully and partially saturated porous media: Insights from geoelectrical milli-fluidic experiments. <i>Advances in Water Resources</i> , 2018, 113, 295-309.	3.8	28
62	Focused time-lapse inversion of radio and audio magnetotelluric data. <i>Journal of Applied Geophysics</i> , 2012, 84, 29-38.	2.1	26
63	Pore network modeling of the electrical signature of solute transport in dual-domain media. <i>Geophysical Research Letters</i> , 2017, 44, 4908-4916.	4.0	25
64	Assessment of chemical denudation rates using hydrological measurements, water chemistry analysis and electromagnetic geophysical data. <i>Permafrost and Periglacial Processes</i> , 2003, 14, 387-397.	3.4	21
65	Impact of petrophysical uncertainty on Bayesian hydrogeophysical inversion and model selection. <i>Advances in Water Resources</i> , 2018, 111, 346-359.	3.8	21
66	Time-Lapse Seismic and Electrical Monitoring of the Vadose Zone during a Controlled Infiltration Experiment at the Ploemeur Hydrological Observatory, France. <i>Water (Switzerland)</i> , 2020, 12, 1230.	2.7	19
67	The 3-D structure of the Somma-Vesuvius volcanic complex (Italy) inferred from new and historic gravimetric data. <i>Scientific Reports</i> , 2017, 7, 8434.	3.3	18
68	HYDROGEOPHYSICAL PARAMETER ESTIMATION APPROACHES FOR FIELD SCALE CHARACTERIZATION. , 2006, , 9-44.		18
69	3-D density structure and geological evolution of Stromboli volcano (Aeolian Islands, Italy) inferred from land-based and sea-surface gravity data. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 273, 58-69.	2.1	17
70	Effective modeling of ground penetrating radar in fractured media using analytic solutions for propagation, thin-bed interaction and dipolar scattering. <i>Journal of Applied Geophysics</i> , 2015, 116, 206-214.	2.1	17
71	Bayesian full-waveform tomography with application to crosshole ground penetrating radar data. <i>Geophysical Journal International</i> , 2019, 218, 913-931.	2.4	17
72	Falsification and corroboration of conceptual hydrological models using geophysical data. <i>Wiley Interdisciplinary Reviews: Water</i> , 2014, 1, 151-171.	6.5	16

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73	Apparent apertures from ground penetrating radar data and their relation to heterogeneous aperture fields. <i>Geophysical Journal International</i> , 2017, 209, 1418-1430.	2.4	16
74	Advancing quantitative understanding of self-potential signatures in the critical zone through long-term monitoring. <i>Journal of Hydrology</i> , 2020, 585, 124771.	5.4	16
75	Comment on "Characterization of multiphase electrokinetic coupling using a bundle of capillary tubes model" by Mathew D. Jackson. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	15
76	Full-waveform inversion of crosshole ground penetrating radar data to characterize a gravel aquifer close to the Thur River, Switzerland. , 2010, , .		15
77	A filtering method to correct time-lapse 3D ERT data and improve imaging of natural aquifer dynamics. <i>Journal of Applied Geophysics</i> , 2012, 80, 12-24.	2.1	15
78	Probabilistic inversion with graph cuts: Application to the Boise Hydrogeophysical Research Site. <i>Water Resources Research</i> , 2017, 53, 1231-1250.	4.2	15
79	Neutrally buoyant tracers in hydrogeophysics: Field demonstration in fractured rock. <i>Geophysical Research Letters</i> , 2017, 44, 3663-3671.	4.0	14
80	Hydrogeological Model Selection Among Complex Spatial Priors. <i>Water Resources Research</i> , 2019, 55, 6729-6753.	4.2	14
81	Tomogram-based comparison of geostatistical models: Application to the Macrodispersion Experiment (MADE) site. <i>Journal of Hydrology</i> , 2015, 531, 543-556.	5.4	13
82	An analytical study of seismoelectric signals produced by 1-D mesoscopic heterogeneities. <i>Geophysical Journal International</i> , 2015, 201, 329-342.	2.4	13
83	Joint probabilistic inversion of DC resistivity and seismic refraction data applied to bedrock/regolith interface delineation. <i>Journal of Applied Geophysics</i> , 2019, 170, 103839.	2.1	13
84	Which fractures are imaged with Ground Penetrating Radar? Results from an experiment in the Åspö Hardrock Laboratory, Sweden. <i>Engineering Geology</i> , 2020, 273, 105674.	6.3	13
85	On structure-based priors in Bayesian geophysical inversion. <i>Geophysical Journal International</i> , 2017, 208, 1342-1358.	2.4	12
86	Simulating Fully-Integrated Hydrological Dynamics in Complex Alpine Headwaters: Potential and Challenges. <i>Water Resources Research</i> , 2022, 58, .	4.2	12
87	Multicriteria Decision Aid in Supporting Decisions Related to Groundwater Protection. <i>Environmental Management</i> , 2003, 32, 589-601.	2.7	11
88	Inference of multi-Gaussian relative permittivity fields by probabilistic inversion of crosshole ground-penetrating radar data. <i>Geophysics</i> , 2017, 82, H25-H40.	2.6	11
89	Seismic signatures reveal persistence of soil compaction. <i>Vadose Zone Journal</i> , 2021, 20, e20140.	2.2	11
90	Heat transport by flow through rough rock fractures: a numerical investigation. <i>Advances in Water Resources</i> , 2021, 156, 104042.	3.8	11

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91	Feature-preserving interpolation and filtering of environmental time series. <i>Environmental Modelling and Software</i> , 2015, 72, 71-76.	4.5	10
92	Probabilistic inference of subsurface heterogeneity and interface geometry using geophysical data. <i>Geophysical Journal International</i> , 0, , .	2.4	10
93	Experimental Design for Crosshole Electrical Resistivity Tomography Data Sets. , 2008, , .		9
94	Comment on "Streaming potential dependence on water-content in Fontainebleau sand" by V. Allègre, L. Jouniaux, F. Lehmann and P. Sailhac. <i>Geophysical Journal International</i> , 2011, 186, 113-114.	2.4	9
95	Simulation of fine-scale electrical conductivity fields using resolution-limited tomograms and area-to-point kriging. <i>Geophysical Journal International</i> , 2019, 218, 1322-1335.	2.4	9
96	1. Joint Inversion of Crosshole GPR and Seismic Traveltime Data. , 2010, , 1-16.		8
97	Probabilistic inference of fracture-scale flow paths and aperture distribution from hydrogeophysically-monitored tracer tests. <i>Journal of Hydrology</i> , 2018, 567, 305-319.	5.4	8
98	Reduction of conceptual model uncertainty using ground-penetrating radar profiles: Field-demonstration for a braided-river aquifer. <i>Journal of Hydrology</i> , 2019, 571, 254-264.	5.4	8
99	Approaching geoscientific inverse problems with vector-to-image domain transfer networks. <i>Advances in Water Resources</i> , 2021, 152, 103917.	3.8	8
100	A comment on "Electrical tomography of La Soufrière of Guadeloupe Volcano: Field experiments, 1D inversion and qualitative interpretation" by Nicollin, F. et al. [<i>Earth Planet. Sci. Lett.</i> 244 (2006) 709-724]. <i>Earth and Planetary Science Letters</i> , 2007, 258, 619-622.	4.4	6
101	Geoelectrical Signatures of Reactive Mixing: A Theoretical Assessment. <i>Geophysical Research Letters</i> , 2018, 45, 3489-3498.	4.0	6
102	Bayesian Inference of Subglacial Channel Structures From Water Pressure and Tracer Transit Time Data: A Numerical Study Based on a Geostatistical Modeling Approach. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 1625-1644.	2.8	6
103	Adaptive sequential Monte Carlo for posterior inference and model selection among complex geological priors. <i>Geophysical Journal International</i> , 2021, 226, 1220-1238.	2.4	6
104	Using deep generative neural networks to account for model errors in Markov chain Monte Carlo inversion. <i>Geophysical Journal International</i> , 2021, 228, 1098-1118.	2.4	6
105	Lasting Effects of Soil Compaction on Soil Water Regime Confirmed by Geoelectrical Monitoring. <i>Water Resources Research</i> , 2022, 58, e2021WR030696.	4.2	6
106	Individual and joint inversion of head and flux data by geostatistical hydraulic tomography. <i>Advances in Water Resources</i> , 2021, 154, 103960.	3.8	5
107	Bayesian tomography with prior-knowledge-based parametrization and surrogate modelling. <i>Geophysical Journal International</i> , 2022, 231, 673-691.	2.4	5
108	High resolution imaging of the unsaturated and saturated zones of a gravel aquifer using full-waveform inversion. , 2011, , .		4

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109	Inferring geostatistical properties of hydraulic conductivity fields from saline tracer tests and equivalent electrical conductivity time-series. <i>Advances in Water Resources</i> , 2020, 146, 103758.	3.8	4
110	Lithological tomography with the correlated pseudo-marginal method. <i>Geophysical Journal International</i> , 2021, 228, 839-856.	2.4	4
111	GPR-inferred fracture aperture widening in response to a high-pressure tracer injection test at the Åspå Hard Rock Laboratory, Sweden. <i>Engineering Geology</i> , 2021, 292, 106249.	6.3	3
112	Hydrogeological multiple-point statistics inversion by adaptive sequential Monte Carlo. <i>Advances in Water Resources</i> , 2022, 166, 104252.	3.8	3
113	The buried caldera boundary of the Vesuvius 1631 eruption revealed by present-day soil CO ₂ concentration. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 375, 43-56.	2.1	2
114	Electrical Signatures of Diffusion-Limited Mixing: Insights from a Milli-fluidic Tracer Experiment. <i>Transport in Porous Media</i> , 0, , 1.	2.6	2
115	Electrical Resistivity Monitoring of Saline Tracer Fingering at Pore Scale under Partially Saturated Conditions. , 2016, , .		2
116	GEOELECTRICAL MONITORING OF SOLUTE TRANSPORT IN DUAL-DOMAIN MEDIA: A REVIEW. , 2017, , .		1
117	A Multi-borehole 3-D ERT Monitoring System for Aquifer Characterization Using River Flood Events as a Natural Tracer. , 2010, , .		1
118	3D characterization of an aquifer using full-waveform inversion and amplitude analysis. , 2013, , .		0
119	A Quantitative Comparison of GPR Sections to Reduce Geological Prior Uncertainty. , 2018, , .		0