Nuutti HyvÃ¶nen

List of Publications by Year
in descending order

63	926	567144 15	526166 27
papers	citations	h-index	g-index

64	64	64	451
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reconstruction of singular and degenerate inclusions in CalderÃ³n's problem. Inverse Problems and Imaging, 2022, 16, 1219.	0.6	2
2	Edge-Promoting Adaptive Bayesian Experimental Design for X-ray Imaging. SIAM Journal of Scientific Computing, 2022, 44, B506-B530.	1.3	3
3	Inverse Heat Source Problem and Experimental Design for Determining Iron Loss Distribution. SIAM Journal of Scientific Computing, 2021, 43, B243-B270.	1.3	1
4	Mimicking relative continuum measurements by electrode data in two-dimensional electrical impedance tomography. Numerische Mathematik, 2021, 147, 579-609.	0.9	3
5	Sequentially optimized projections in x-ray imaging [*]. Inverse Problems, 2021, 37, 075006.	1.0	4
6	Approximation error method for imaging the human head by electrical impedance tomography*. Inverse Problems, 2021, 37, 125008.	1.0	5
7	Optimal Depth-Dependent Distinguishability Bounds for Electrical Impedance Tomography in Arbitrary Dimension. SIAM Journal on Applied Mathematics, 2020, 80, 20-43.	0.8	4
8	On Regularity of the Logarithmic Forward Map of Electrical Impedance Tomography. SIAM Journal on Mathematical Analysis, 2020, 52, 197-220.	0.9	6
9	Monotonicity-Based Reconstruction of Extreme Inclusions in Electrical Impedance Tomography. SIAM Journal on Mathematical Analysis, 2020, 52, 6234-6259.	0.9	10
10	Computational Framework for Applying Electrical Impedance Tomography to Head Imaging. SIAM Journal of Scientific Computing, 2019, 41, B1034-B1060.	1.3	11
11	An inverse boundary value problem for the p -Laplacian: a linearization approach. Inverse Problems, 2019, 35, 034001.	1.0	6
12	Thermal Tomography with Unknown Boundary. SIAM Journal of Scientific Computing, 2018, 40, B663-B683.	1.3	0
13	Generalized linearization techniques in electrical impedance tomography. Numerische Mathematik, 2018, 140, 95-120.	0.9	11
14	Enhancing D-bar reconstructions for electrical impedance tomography with conformal maps. Inverse Problems and Imaging, 2018, 12, 373-400.	0.6	8
15	Polynomial Collocation for Handling an Inaccurately Known Measurement Configuration in Electrical Impedance Tomography. SIAM Journal on Applied Mathematics, 2017, 77, 202-223.	0.8	11
16	Compensation for geometric modeling errors by positioning of electrodes in electrical impedance tomography. Inverse Problems, 2017, 33, 035006.	1.0	11
17	Detecting stochastic inclusions in electrical impedance tomography. Inverse Problems, 2017, 33, 115012.	1.0	19
18	Smoothened Complete Electrode Model. SIAM Journal on Applied Mathematics, 2017, 77, 2250-2271.	0.8	18

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19	Efficient Inclusion of Total Variation Type Priors in Quantitative Photoacoustic Tomography. SIAM Journal on Imaging Sciences, 2016, 9, 1132-1153.	1.3	9
20	Edge-promoting reconstruction of absorption and diffusivity in optical tomography. Inverse Problems, 2016, 32, 015008.	1.0	8
21	Stochastic Galerkin Finite Element Method with Local Conductivity Basis for Electrical Impedance Tomography. SIAM-ASA Journal on Uncertainty Quantification, 2015, 3, 998-1019.	1.1	7
22	Edge-Enhancing Reconstruction Algorithm for Three-Dimensional Electrical Impedance Tomography. SIAM Journal of Scientific Computing, 2015, 37, B60-B78.	1.3	16
23	Construction of Indistinguishable Conductivity Perturbations for the Point Electrode Model in Electrical Impedance Tomography. SIAM Journal on Applied Mathematics, 2015, 75, 2093-2109.	0.8	8
24	Optimizing Electrode Positions in Electrical Impedance Tomography. SIAM Journal on Applied Mathematics, 2014, 74, 1831-1851.	0.8	35
25	Reconstruction algorithm based on stochastic Galerkin finite element method for electrical impedance tomography. Inverse Problems, 2014, 30, 065006.	1.0	11
26	Application of stochastic Galerkin FEM to the complete electrode model of electrical impedance tomography. Journal of Computational Physics, 2014, 269, 181-200.	1.9	14
27	Simultaneous Reconstruction of Outer Boundary Shape and Admittivity Distribution in Electrical Impedance Tomography. SIAM Journal on Imaging Sciences, 2013, 6, 176-198.	1.3	47
28	Simultaneous recovery of admittivity and body shape in electrical impedance tomography: an experimental evaluation. Inverse Problems, 2013, 29, 085004.	1.0	36
29	An $H_mathsf{div}$-Based Mixed Quasi-reversibility Method for Solving Elliptic Cauchy Problems. SIAM Journal on Numerical Analysis, 2013, 51, 2123-2148.	1.1	29
30	Generalized eigenvalue decomposition of the field autocorrelation in correlation diffusion of photons in turbid media. Mathematical Methods in the Applied Sciences, 2013, 36, 1447-1458.	1.2	2
31	A note on analyticity properties of far field patterns. Inverse Problems and Imaging, 2013, 7, 491-498.	0.6	0
32	Detection of multiple inclusions from sweep data of electrical impedance tomography. Inverse Problems, 2012, 28, 095014.	1.0	4
33	Point Measurements for a Neumann-to-Dirichlet Map and the CalderÃ³n Problem in the Plane. SIAM Journal on Mathematical Analysis, 2012, 44, 3526-3536.	0.9	12
34	On the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si42.gif" display="inline" overflow="scroll"><mml:mi>h</mml:mi><mml:mi>p</mml:mi></mml:math>-adaptive solution of complete electrode model forward problems of electrical impedance tomography. Journal of Computational and Applied Mathematics, 2012, 236, 4645-4659.	1.1	11
35	Convex source support in three dimensions. BIT Numerical Mathematics, 2012, 52, 45-63.	1.0	4
36	Fine-tuning electrode information in electrical impedance tomography. Inverse Problems and Imaging, 2012, 6, 399-421.	0.6	37

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37	Ultrasound-modulated optical tomography: recovery of amplitude of vibration in the insonified region from boundary measurement of light correlation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2322.	0.8	11
38	Convex backscattering support in electric impedance tomography. Numerische Mathematik, 2011, 117, 373-396.	0.9	17
39	Sweep data of electrical impedance tomography. Inverse Problems, 2011, 27, 115006.	1.0	6
40	A regularized Newton method for locating thin tubular conductivity inhomogeneities. Inverse Problems, 2011, 27, 115008.	1.0	7
41	JUSTIFICATION OF POINT ELECTRODE MODELS IN ELECTRICAL IMPEDANCE TOMOGRAPHY. Mathematical Models and Methods in Applied Sciences, 2011, 21, 1395-1413.	1.7	62
42	FrÃ©chet Derivative with Respect to the Shape of an Internal Electrode in Electrical Impedance Tomography. SIAM Journal on Applied Mathematics, 2010, 70, 1878-1898.	0.8	8
43	Three-dimensional dental X-ray imaging by combination of panoramic and projection data. Inverse Problems and Imaging, 2010, 4, 257-271.	0.6	13
44	Convex source support in half-plane. Inverse Problems and Imaging, 2010, 4, 429-448.	0.6	4
45	APPROXIMATING IDEALIZED BOUNDARY DATA OF ELECTRIC IMPEDANCE TOMOGRAPHY BY ELECTRODE MEASUREMENTS. Mathematical Models and Methods in Applied Sciences, 2009, 19, 1185-1202.	1.7	33
46	Comparison of idealized and electrode Dirichlet-to-Neumann maps in electric impedance tomography with an application to boundary determination of conductivity. Inverse Problems, 2009, 25, 085008.	1.0	4
47	On computation of test dipoles for factorization method. BIT Numerical Mathematics, 2009, 49, 75-91.	1.0	13
48	An Inverse Backscatter Problem for Electric Impedance Tomography. SIAM Journal on Mathematical Analysis, 2009, 41, 1948-1966.	0.9	11
49	Source supports in electrostatics. BIT Numerical Mathematics, 2008, 48, 245-264.	1.0	7
50	The Factorization Method Applied to the Complete Electrode Model of Impedance Tomography. SIAM Journal on Applied Mathematics, 2008, 68, 1097-1121.	0.8	48
51	Two noniterative algorithms for locating inclusions using one electrode measurement of electric impedance tomography. Inverse Problems, 2008, 24, 055018.	1.0	7
52	Convex Source Support and Its Application to Electric Impedance Tomography. SIAM Journal on Imaging Sciences, 2008, 1, 364-378.	1.3	14
53	Factorization method and inclusions of mixed type in an inverse elliptic boundary value problem. Inverse Problems and Imaging, 2008, 2, 355-372.	0.6	13
54	Factorization method and irregular inclusions in electrical impedance tomography. Inverse Problems, 2007, 23, 2159-2170.	1.0	52

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55	FrÃ©chet derivative with respect to the shape of a strongly convex nonscattering region in optical tomography. Inverse Problems, 2007, 23, 2249-2270.	1.0	4
56	Locating Transparent Regions in Optical Absorption and Scattering Tomography. SIAM Journal on Applied Mathematics, 2007, 67, 1101-1123.	0.8	9
57	Application of the factorization method to the characterization of weak inclusions in electrical impedance tomography. Advances in Applied Mathematics, 2007, 39, 197-221.	0.4	14
58	Numerical implementation of the factorization method within the complete electrode model of electrical impedance tomography. Inverse Problems and Imaging, 2007, 1, 299-317.	0.6	28
59	Application of a weaker formulation of the factorization method to the characterization of absorbing inclusions in optical tomography. Inverse Problems, 2005, 21, 1331-1343.	1.0	11
60	Characterizing inclusions in optical tomography. Inverse Problems, 2004, 20, 737-751.	1.0	20
61	Complete Electrode Model of Electrical Impedance Tomography: Approximation Properties and Characterization of Inclusions. SIAM Journal on Applied Mathematics, 2004, 64, 902-931.	0.8	72
62	ANALYSIS OF OPTICAL TOMOGRAPHY WITH NON-SCATTERING REGIONS. Proceedings of the Edinburgh Mathematical Society, 2002, 45, 257-276.	0.2	12
63	Series reversion in CalderÃ³nâ€™s problem. , 0, , .		3