

B Tomas Johansson

List of Publications by Year in descending order

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90
papers

1,444
citations

361413

20
h-index

377865

34
g-index

92
all docs

92
docs citations

92
times ranked

462
citing authors

#	ARTICLE	IF	CITATIONS
1	Determination of a spacewise dependent heat source. <i>Journal of Computational and Applied Mathematics</i> , 2007, 209, 66-80.	2.0	140
2	A variational method for identifying a spacewise-dependent heat source. <i>IMA Journal of Applied Mathematics</i> , 2007, 72, 748-760.	1.6	107
3	Reconstruction of an acoustically sound-soft obstacle from one incident field and the far-field pattern. <i>IMA Journal of Applied Mathematics</i> , 2007, 72, 96-112.	1.6	79
4	A procedure for determining a spacewise dependent heat source and the initial temperature. <i>Applicable Analysis</i> , 2008, 87, 265-276.	1.3	74
5	A method of fundamental solutions for the one-dimensional inverse Stefan problem. <i>Applied Mathematical Modelling</i> , 2011, 35, 4367-4378.	4.2	64
6	A method of fundamental solutions for transient heat conduction. <i>Engineering Analysis With Boundary Elements</i> , 2008, 32, 697-703.	3.7	57
7	Nonlinear Integral Equation Methods for the Reconstruction of an Acoustically Sound-soft Obstacle. <i>Journal of Integral Equations and Applications</i> , 2007, 19, 289.	0.6	40
8	A method of fundamental solutions for transient heat conduction in layered materials. <i>Engineering Analysis With Boundary Elements</i> , 2009, 33, 1362-1367.	3.7	38
9	A method of fundamental solutions for two-dimensional heat conduction. <i>International Journal of Computer Mathematics</i> , 2011, 88, 1697-1713.	1.8	36
10	The method of fundamental solutions for free surface Stefan problems. <i>Engineering Analysis With Boundary Elements</i> , 2009, 33, 529-538.	3.7	33
11	The method of fundamental solutions for detection of cavities in EIT. <i>Journal of Integral Equations and Applications</i> , 2009, 21, .	0.6	32
12	The method of fundamental solutions for the identification of a sound-soft obstacle in inverse acoustic scattering. <i>Applied Numerical Mathematics</i> , 2012, 62, 1767-1780.	2.1	30
13	Reconstruction of a spacewise-dependent heat source in a time-dependent heat diffusion process. <i>IMA Journal of Applied Mathematics</i> , 2014, 79, 33-53.	1.6	30
14	An alternating method for the stationary Stokes system. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2006, 86, 268-280.	1.6	28
15	Numerical approximation of the one-dimensional inverse Cauchyâ€™Stefan problem using a method of fundamental solutions. <i>Inverse Problems in Science and Engineering</i> , 2011, 19, 659-677.	1.2	27
16	A boundary element method for a multi-dimensional inverse heat conduction problem. <i>International Journal of Computer Mathematics</i> , 2012, 89, 1540-1554.	1.8	27
17	An iterative procedure for solving a Cauchy problem for second order elliptic equations. <i>Mathematische Nachrichten</i> , 2004, 272, 46-54.	0.8	25
18	A relaxation method of an alternating iterative algorithm for the Cauchy problem in linear isotropic elasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 3179-3196.	6.6	25

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19	Inverse space-dependent force problems for the wave equation. <i>Journal of Computational and Applied Mathematics</i> , 2016, 306, 10-39.	2.0	25
20	A meshless method for an inverse two-phase one-dimensional linear Stefan problem. <i>Inverse Problems in Science and Engineering</i> , 2013, 21, 17-33.	1.2	21
21	A Variational Method and Approximations of a Cauchy Problem for Elliptic Equations. <i>Journal of Algorithms and Computational Technology</i> , 2010, 4, 89-119.	0.7	20
22	On the numerical solution of a Cauchy problem for the Laplace equation via a direct integral equation approach. <i>Inverse Problems and Imaging</i> , 2012, 6, 25-38.	1.1	19
23	A method of fundamental solutions for the radially symmetric inverse heat conduction problem. <i>International Communications in Heat and Mass Transfer</i> , 2012, 39, 887-895.	5.6	19
24	A boundary integral equation method for numerical solution of parabolic and hyperbolic Cauchy problems. <i>Applied Numerical Mathematics</i> , 2018, 129, 104-119.	2.1	19
25	Determining Planar Multiple Sound-Soft Obstacles from Scattered Acoustic Fields. <i>Journal of Mathematical Imaging and Vision</i> , 2010, 36, 185-199.	1.3	18
26	Fast reconstruction of harmonic functions from Cauchy data using integral equation techniques. <i>Inverse Problems in Science and Engineering</i> , 2010, 18, 381-399.	1.2	18
27	A comparative study on applying the method of fundamental solutions to the backward heat conduction problem. <i>Mathematical and Computer Modelling</i> , 2011, 54, 403-416.	2.0	18
28	Identification of a time-dependent bio-heat blood perfusion coefficient. <i>International Communications in Heat and Mass Transfer</i> , 2016, 75, 218-222.	5.6	18
29	Relaxation procedures for an iterative MFS algorithm for the stable reconstruction of elastic fields from Cauchy data in two-dimensional isotropic linear elasticity. <i>International Journal of Solids and Structures</i> , 2010, 47, 3462-3479.	2.7	17
30	An iterative method for a Cauchy problem for the heat equation. <i>IMA Journal of Applied Mathematics</i> , 2006, 71, 262-286.	1.6	14
31	Determination of an additive time- and space-dependent coefficient in the heat equation. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2018, 28, 1352-1373.	2.8	14
32	On the use of an integral equation approach for the numerical solution of a Cauchy problem for Laplace equation in a doubly connected planar domain. <i>Inverse Problems in Science and Engineering</i> , 2014, 22, 130-149.	1.2	13
33	An alternating boundary integral based method for a Cauchy problem for the Laplace equation in semi-infinite regions. <i>Inverse Problems and Imaging</i> , 2008, 2, 317-333.	1.1	13
34	An alternating method for Cauchy problems for Helmholtz-type operators in non-homogeneous medium. <i>IMA Journal of Applied Mathematics</i> , 2008, 74, 62-73.	1.6	12
35	An Alternating Potential-Based Approach To The Cauchy Problem For The Laplace Equation In A Planar Domain With A Cut. <i>Computational Methods in Applied Mathematics</i> , 2008, 8, 315-335.	0.8	12
36	A method of fundamental solutions for radially symmetric and axisymmetric backward heat conduction problems. <i>International Journal of Computer Mathematics</i> , 2012, 89, 1555-1568.	1.8	12

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37	The method of fundamental solutions for a time-dependent two-dimensional Cauchy heat conduction problem. <i>Engineering Analysis With Boundary Elements</i> , 2013, 37, 569-578.	3.7	12
38	A meshless method for an inverse two-phase one-dimensional nonlinear Stefan problem. <i>Mathematics and Computers in Simulation</i> , 2014, 101, 61-77.	4.4	12
39	A Meshless Regularization Method for a Two-Dimensional Two-Phase Linear Inverse Stefan Problem. <i>Advances in Applied Mathematics and Mechanics</i> , 2013, 5, 825-845.	1.2	12
40	Reconstruction of a stationary flow from incomplete boundary data using iterative methods. <i>European Journal of Applied Mathematics</i> , 2006, 17, 651.	2.9	11
41	An iterative method for the reconstruction of a stationary flow. <i>Numerical Methods for Partial Differential Equations</i> , 2007, 23, 998-1017.	3.6	11
42	An integral equation method for the numerical solution of a Dirichlet problem for second-order elliptic equations with variable coefficients. <i>Journal of Engineering Mathematics</i> , 2018, 112, 63-73.	1.2	11
43	Boundary integral equations for acoustical inverse sound-soft scattering. <i>Journal of Inverse and Ill-Posed Problems</i> , 2008, 16, .	1.0	10
44	Properties of a method of fundamental solutions for the parabolic heat equation. <i>Applied Mathematics Letters</i> , 2017, 65, 83-89.	2.7	10
45	Numerical reconstruction of brain tumours. <i>Inverse Problems in Science and Engineering</i> , 2019, 27, 278-298.	1.2	10
46	A variational conjugate gradient method for determining the fluid velocity of a slow viscous flow. <i>Applicable Analysis</i> , 2006, 85, 1327-1341.	1.3	9
47	The method of fundamental solutions for the two-dimensional inverse Stefan problem. <i>Inverse Problems in Science and Engineering</i> , 2014, 22, 112-129.	1.2	9
48	Identification of a multi-dimensional space-dependent heat source from boundary data. <i>Applied Mathematical Modelling</i> , 2018, 54, 202-220.	4.2	9
49	Numerical simulations in 3-dimensions of reaction-diffusion models for brain tumour growth. <i>International Journal of Computer Mathematics</i> , 2020, 97, 1151-1169.	1.8	8
50	A method of fundamental solutions for heat and wave propagation from lateral Cauchy data. <i>Numerical Algorithms</i> , 0, , 1.	1.9	8
51	Determining the temperature from incomplete boundary data. <i>Mathematische Nachrichten</i> , 2007, 280, 1765-1779.	0.8	7
52	Numerical solution of an elliptic 3-dimensional Cauchy problem by the alternating method and boundary integral equations. <i>Journal of Inverse and Ill-Posed Problems</i> , 2016, 24, .	1.0	7
53	On the Alternating Method for Cauchy Problems and Its Finite Element Discretisation. <i>Springer Proceedings in Mathematics and Statistics</i> , 2013, , 183-197.	0.2	7
54	Uniqueness and counterexamples in some inverse source problems. <i>Applied Mathematics Letters</i> , 2016, 58, 56-61.	2.7	6

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55	Numerical solution of the Dirichlet initial boundary value problem for the heat equation in exterior 3-dimensional domains using integral equations. <i>Journal of Engineering Mathematics</i> , 2017, 103, 23-37.	1.2	6
56	Wave propagation from lateral Cauchy data using a boundary element method. <i>Wave Motion</i> , 2019, 91, 102385.	2.0	6
57	A direct boundary integral equation method for the numerical construction of harmonic functions in three-dimensional layered domains containing a cavity. <i>International Journal of Computer Mathematics</i> , 2012, 89, 1448-1462.	1.8	5
58	The development of a wax layer on the interior wall of a circular pipe transporting heated oil. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 2014, 67, 93-125.	1.3	5
59	A procedure for the temperature reconstruction in corner domains from Cauchy data. <i>Inverse Problems</i> , 2007, 23, 357-372.	2.0	4
60	Quasi-separation of the biharmonic partial differential equation. <i>IMA Journal of Applied Mathematics</i> , 2009, 74, 685-709.	1.6	4
61	A method for identifying a spacewise-dependent heat source under stochastic noise interference. <i>Inverse Problems in Science and Engineering</i> , 2010, 18, 51-63.	1.2	4
62	A projected iterative method based on integral equations for inverse heat conduction in domains with a cut. <i>Inverse Problems</i> , 2013, 29, 065003.	2.0	4
63	The method of fundamental solutions for problems in static thermo-elasticity with incomplete boundary data. <i>Inverse Problems in Science and Engineering</i> , 2017, 25, 652-673.	1.2	4
64	An iterative method for the Cauchy problem for second-order elliptic equations. <i>International Journal of Mechanical Sciences</i> , 2018, 142-143, 216-223.	6.7	4
65	Determining the temperature from Cauchy data in corner domains. <i>International Journal of Computing Science and Mathematics</i> , 2010, 3, 122.	0.3	3
66	Numerical solution of parabolic Cauchy problems in planar corner domains. <i>Mathematics and Computers in Simulation</i> , 2014, 101, 1-12.	4.4	3
67	Source Localization of Reaction-Diffusion Models for Brain Tumors. <i>Lecture Notes in Computer Science</i> , 2016, , 414-425.	1.3	3
68	An iterative regularizing method for an incomplete boundary data problem for the biharmonic equation. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018, 98, 2010-2021.	1.6	3
69	Solution of the Cauchy problem for the wave equation using iterative regularization. <i>Inverse Problems in Science and Engineering</i> , 2021, 29, 2757-2771.	1.2	3
70	Fast reconstruction of harmonic functions from Cauchy data using the Dirichlet-to-Neumann map and integral equations. <i>Inverse Problems in Science and Engineering</i> , 2011, 19, 717-727.	1.2	2
71	Solvability and asymptotics of the heat equation with mixed variable lateral conditions and applications in the opening of the exocytotic fusion pore in cells. <i>IMA Journal of Applied Mathematics</i> , 2014, 79, 377-392.	1.6	2
72	On the alternating method and boundary-domain integrals for elliptic Cauchy problems. <i>Computers and Mathematics With Applications</i> , 2019, 78, 3514-3526.	2.7	2

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73	Integral equations for biharmonic data completion. <i>Inverse Problems and Imaging</i> , 2019, 13, 1095-1111.	1.1	2
74	A method of fundamental solutions with time-discretisation for wave motion from lateral Cauchy data. <i>SN Partial Differential Equations and Applications</i> , 2022, 3, 1.	0.6	2
75	A procedure for the reconstruction of a stochastic stationary temperature field. <i>IMA Journal of Applied Mathematics</i> , 2007, 73, 641-650.	1.6	1
76	An alternating boundary integral based method for a Cauchy problem for the Laplace equation in a quadrant. <i>Inverse Problems in Science and Engineering</i> , 2009, 17, 871-883.	1.2	1
77	Numerical solution of a Cauchy problem for Laplace equation in 3-dimensional domains by integral equations. <i>Inverse Problems in Science and Engineering</i> , 2016, 24, 1550-1568.	1.2	1
78	Leak identification in a saturated unsteady flow via a Cauchy problem. <i>Applied Mathematical Modelling</i> , 2017, 41, 25-36.	4.2	1
79	On a boundary integral solution of a lateral planar Cauchy problem in elastodynamics. <i>Journal of Computational and Applied Mathematics</i> , 2020, 367, 112463.	2.0	1
80	Recovering boundary data in planar heat conduction using a boundary integral equation method. <i>Electronic Journal of Boundary Elements</i> , 2011, 9, .	0.3	1
81	An inverse elastodynamic data reconstruction problem. <i>Journal of Engineering Mathematics</i> , 2022, 134, .	1.2	1
82	Reconstruction of an unsteady flow from incomplete boundary data: Part I. Theory. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2009, 19, 53-63.	2.8	0
83	Calculating the derivative of piecewise functions. <i>International Journal of Mathematical Education in Science and Technology</i> , 2016, 47, 144-148.	1.4	0
84	An elementary algorithm to evaluate trigonometric functions to high precision. <i>International Journal of Mathematical Education in Science and Technology</i> , 2018, 49, 131-137.	1.4	0
85	Construction of sundials via vectors. <i>International Journal of Mathematical Education in Science and Technology</i> , 2019, 50, 617-628.	1.4	0
86	A Boundary-Domain Integral Equation Method for an Elliptic Cauchy Problem with Variable Coefficients. <i>Trends in Mathematics</i> , 2019, , 493-501.	0.1	0
87	On non-denseness for a method of fundamental solutions with source points fixed in time for parabolic equations. <i>Comptes Rendus Mathematique</i> , 2021, 359, 733-738.	0.3	0
88	An iterative method based on boundary integrals for elliptic Cauchy problems in semi-infinite domains. <i>Electronic Journal of Boundary Elements</i> , 2009, 7, .	0.3	0
89	Boundary Integrals for Data Reconstruction on an Elastostatic Crack. <i>International Journal of Applied and Computational Mathematics</i> , 2022, 8, 1.	1.6	0
90	An iterative method for reconstruction of temperature. <i>Journal of Inverse and Ill-Posed Problems</i> , 2006, 14, 267-278.	1.0	0