Fajie Wang

List of Publications by Year
in descending order

63 papers	**1,288** citations	331670 **21** h-index	395702 **33** g-index
63 all docs	**63** docs citations	**63** times ranked	**334** citing authors

#	Article	IF	Citations
1	Local knot method for 2D and 3D convection–diffusion–reaction equations in arbitrary domains. Applied Mathematics Letters, 2020, 105, 106308.	2.7	63
2	Optimal sources in the MFS by minimizing a new merit function: Energy gap functional. Applied Mathematics Letters, 2018, 86, 229-235.	2.7	58
3	Localized boundary knot method and its application to large-scale acoustic problems. Computer Methods in Applied Mechanics and Engineering, 2020, 361, 112729.	6.6	57
4	A BEM formulation in conjunction with parametric equation approach for three-dimensional Cauchy problems of steady heat conduction. Engineering Analysis With Boundary Elements, 2016, 63, 1-14.	3.7	55
5	A Localized Space-Time Method of Fundamental Solutions for Diffusion and Convection-Diffusion Problems. Advances in Applied Mathematics and Mechanics, 2020, 12, 940-958.	1.2	54
6	Boundary function method for inverse geometry problem in two-dimensional anisotropic heat conduction equation. Applied Mathematics Letters, 2018, 84, 130-136.	2.7	53
7	A meshless singular boundary method for transient heat conduction problems in layered materials. Computers and Mathematics With Applications, 2019, 78, 3544-3562.	2.7	52
8	Localized MFS for the inverse Cauchy problems of two-dimensional Laplace and biharmonic equations. Applied Mathematics and Computation, 2020, 364, 124658.	2.2	50
9	Method of particular solutions using polynomial basis functions for the simulation of plate bending vibration problems. Applied Mathematical Modelling, 2017, 49, 452-469.	4.2	46
10	A novel space–time meshless method for nonhomogeneous convection–diffusion equations with variable coefficients. Applied Mathematics Letters, 2019, 92, 144-150.	2.7	45
11	Singular boundary method for transient convection–diffusion problems with time-dependent fundamental solution. International Journal of Heat and Mass Transfer, 2017, 114, 1126-1134.	4.8	42
12	Localized method of fundamental solutions for large-scale modelling of three-dimensional anisotropic heat conduction problems – Theory and MATLAB code. Computers and Structures, 2019, 220, 144-155.	4.4	38
13	Analysis of three-dimensional interior acoustic fields by using the localized method of fundamental solutions. Applied Mathematical Modelling, 2019, 76, 122-132.	4.2	36
14	Boundary element analysis of inverse heat conduction problems in 2D thin-walled structures. International Journal of Heat and Mass Transfer, 2015, 91, 1001-1009.	4.8	34
15	Localized method of fundamental solutions for three-dimensional inhomogeneous elliptic problems: theory and MATLAB code. Computational Mechanics, 2019, 64, 1567-1588.	4.0	33
16	Analytical evaluation of the origin intensity factor of time-dependent diffusion fundamental solution for a matrix-free singular boundary method formulation. Applied Mathematical Modelling, 2017, 49, 647-662.	4.2	32
17	Non-Euclidean distance fundamental solution of Hausdorff derivative partial differential equations. Engineering Analysis With Boundary Elements, 2017, 84, 213-219.	3.7	30
18	A simple empirical formula of origin intensity factor in singular boundary method for two-dimensional Hausdorff derivative Laplace equations with Dirichlet boundary. Computers and Mathematics With Applications, 2018, 76, 1075-1084.	2.7	30

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19	Analysis of 2D heat conduction in nonlinear functionally graded materials using a local semi-analytical meshless method. AIMS Mathematics, 2021, 6, 12599-12618.	1.6	28
20	A semi-analytical and boundary-type meshless method with adjoint variable formulation for acoustic design sensitivity analysis. Applied Mathematics Letters, 2022, 131, 108068.	2.7	27
21	Singular boundary method for 2D and 3D acoustic design sensitivity analysis. Computers and Mathematics With Applications, 2022, 119, 371-386.	2.7	26
22	Singular boundary method using time-dependent fundamental solution for transient diffusion problems. Engineering Analysis With Boundary Elements, 2016, 68, 115-123.	3.7	22
23	KANSA METHOD BASED ON THE HAUSDORFF FRACTAL DISTANCE FOR HAUSDORFF DERIVATIVE POISSON EQUATIONS. Fractals, 2018, 26, 1850084.	3.7	20
24	Three-dimensional Hausdorff derivative diffusion model for isotropic/anisotropic fractal porous media. Thermal Science, 2018, 22, 1-6.	1.1	20
25	A meshless method for solving the nonlinear inverse Cauchy problem of elliptic type equation in a doubly-connected domain. Computers and Mathematics With Applications, 2018, 76, 1837-1852.	2.7	19
26	Topology optimization of steady-state heat conduction structures using meshless generalized finite difference method. Engineering Analysis With Boundary Elements, 2020, 119, 13-24.	3.7	19
27	A homogenization function method for inverse heat source problems in 3D functionally graded materials. Applied Mathematical Modelling, 2021, 91, 923-933.	4.2	19
28	Localized Chebyshev collocation method for solving elliptic partial differential equations in arbitrary 2D domains. Applied Mathematics and Computation, 2021, 397, 125903.	2.2	19
29	Trefftz energy method for solving the Cauchy problem of the Laplace equation. Applied Mathematics Letters, 2018, 79, 187-195.	2.7	17
30	Nonlinear wave inverse source problem solved by a method of m-order homogenization functions. Applied Mathematics Letters, 2019, 91, 90-96.	2.7	16
31	Accurate empirical formulas for the evaluation of origin intensity factor in singular boundary method using time-dependent diffusion fundamental solution. International Journal of Heat and Mass Transfer, 2016, 103, 360-369.	4.8	15
32	Localized boundary knot method for 3D inhomogeneous acoustic problems with complicated geometry. Applied Mathematical Modelling, 2021, 92, 410-421.	4.2	15
33	Three-dimensional thermal stress analysis using the indirect BEM in conjunction with the radial integration method. Advances in Engineering Software, 2017, 112, 147-153.	3.8	14
34	Localized singular boundary method for solving Laplace and Helmholtz equations in arbitrary 2D domains. Engineering Analysis With Boundary Elements, 2021, 129, 82-92.	3.7	14
35	Deformation behavior of annealed Cu64Zr36 metallic glass via molecular dynamics simulations. Materials and Design, 2020, 191, 108660.	7.0	13
36	Local non-singular knot method for large-scale computation of acoustic problems in complicated geometries. Computers and Mathematics With Applications, 2021, 84, 128-143.	2.7	13

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37	An energy method of fundamental solutions for solving the inverse Cauchy problems of the Laplace equation. Computers and Mathematics With Applications, 2018, 75, 4405-4413.	2.7	12
38	A wideband fast multipole accelerated singular boundary method for three-dimensional acoustic problems. Computers and Structures, 2018, 206, 82-89.	4.4	11
39	Precorrected-FFT Accelerated Singular Boundary Method for High-Frequency Acoustic Radiation and Scattering. Mathematics, 2022, 10, 238.	2.2	11
40	Boundary function method for boundary identification in two-dimensional steady-state nonlinear heat conduction problems. Engineering Analysis With Boundary Elements, 2019, 103, 101-108.	3.7	9
41	Augmented moving least squares approximation using fundamental solutions. Engineering Analysis With Boundary Elements, 2020, 115, 10-20.	3.7	9
42	Fracture mechanics analysis of bimaterial interface cracks using an enriched method of fundamental solutions: Theory and MATLAB code. Theoretical and Applied Fracture Mechanics, 2021, 116, 103078.	4.7	9
43	HAUSDORFF DERIVATIVE LAPLACIAN OPERATOR FOR IMAGE SHARPENING. Fractals, 2019, 27, 1950060.	3.7	8
44	A novel combined space-time algorithm for transient heat conduction problems with heat sources in complex geometry. Computers and Structures, 2021, 247, 106495.	4.4	8
45	Topology optimization of non-Fourier heat conduction problems considering global thermal dissipation energy minimization. Structural and Multidisciplinary Optimization, 2021, 64, 1385-1399.	3.5	8
46	A space-time generalized finite difference method for solving unsteady double-diffusive natural convection in fluid-saturated porous media. Engineering Analysis With Boundary Elements, 2022, 142, 138-152.	3.7	8
47	Numerical analysis of heat transfer in arbitrary plane domains using a novel Trefftz energy method. Numerical Heat Transfer, Part B: Fundamentals, 2018, 73, 146-154.	0.9	7
48	A novel method for image edge extraction based on the Hausdorff derivative. Physica A: Statistical Mechanics and Its Applications, 2020, 540, 123137.	2.6	7
49	Derivation and numerical validation of the fundamental solutions for constant and variable-order structural derivative advection–dispersion models. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	1.4	5
50	A non-local structural derivative model for memristor. Chaos, Solitons and Fractals, 2019, 126, 169-177.	5.1	4
51	NUMERICAL INVESTIGATION OF THREE-DIMENSIONAL HAUSDORFF DERIVATIVE ANOMALOUS DIFFUSION MODEL. Fractals, 2020, 28, 2050020.	3.7	4
52	Localized singular boundary method for the simulation of large-scale problems of elliptic operators in complex geometries. Computers and Mathematics With Applications, 2022, 105, 94-106.	2.7	4
53	Localized MFS for three–dimensional acoustic inverse problems on complicated domains. International Journal of Mechanical System Dynamics, 2022, 2, 143-152.	2.8	4
54	A Trefftz/MFS mixed-type method to solve the Cauchy problem of the Laplace equation. Applied Mathematics Letters, 2019, 87, 87-92.	2.7	3

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55	Local knot method for solving inverse Cauchy problems of Helmholtz equations on complicated two‑ and three‑dimensional domains. International Journal for Numerical Methods in Engineering, 2022, 123, 4877-4892.	2.8	3
56	Recovering both the space-dependent heat source and the initial temperature by using a fast convergent iterative method. Numerical Heat Transfer, Part B: Fundamentals, 2017, 72, 233-249.	0.9	2
57	Recent advances of stretched Gaussian distribution underlying Hausdorff fractal distance and its applications in fitting stretched Gaussian noise. Physica A: Statistical Mechanics and Its Applications, 2020, 539, 122996.	2.6	2
58	Overcoming the near boundary error in the solution of non-homogeneous wave equation by a boundary consistent method. European Physical Journal Plus, 2020, 135, 1.	2.6	2
59	A homogenization function technique to solve the 3D inverse Cauchy problem of elliptic type equations in a closed walled shell. Inverse Problems in Science and Engineering, 2021, 29, 944-966.	1.2	2
60	On the supporting nodes in the localized method of fundamental solutions for 2D potential problems with Dirichlet boundary condition. AIMS Mathematics, 2021, 6, 7056-7069.	1.6	1
61	On the supporting nodes in the localized method of fundamental solutions for 2D potential problems with Dirichlet boundary condition. AIMS Mathematics, 2021, 6, 7056-7069.	1.6	1
62	A SPECULATIVE STUDY ON NEGATIVE-DIMENSIONAL POTENTIAL AND WAVE PROBLEMS BY IMPLICIT CALCULUS MODELING APPROACH. Fractals, 2017, 25, 1750056.	3.7	0
63	A speculative extension of the differential operator definition to fractal via the fundamental solution. Chaos, 2018, 28, 113105.	2.5	0