Mohammad Rahim Hematiyan

List of Publications by Year
in descending order

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94 papers	1,487 citations	361296 20 h-index	377752 34 g-index
94 all docs	94 docs citations	94 times ranked	817 citing authors

#	Article	IF	Citations
1	Dynamic analysis of sandwich beams with functionally graded core using a truly meshfree radial point interpolation method. Engineering Structures, 2013, 47, 90-104.	2.6	148
2	A simple FSDT-based meshfree method for analysis of functionally graded plates. Engineering Analysis With Boundary Elements, 2017, 79, 1-12.	2.0	87
3	Nonlinear transient heat conduction analysis of functionally graded materials in the presence of heat sources using an improved meshless radial point interpolation method. Applied Mathematical Modelling, 2011, 35, 4157-4174.	2.2	81
4	Accurate and efficient analysis of stationary and propagating crack problems by meshless methods. Theoretical and Applied Fracture Mechanics, 2017, 87, 21-34.	2.1	73
5	A new method for meshless integration in 2D and 3D Galerkin meshfree methods. Engineering Analysis With Boundary Elements, 2010, 34, 30-40.	2.0	69
6	A General Method for Evaluation of 2D and 3D Domain Integrals Without Domain Discretization and its Application in BEM. Computational Mechanics, 2007, 39, 509-520.	2.2	62
7	Three-dimensional thermo-elastoplastic analysis of thick functionally graded plates using the meshless local Petrovâ€“Galerkin method. Engineering Analysis With Boundary Elements, 2016, 71, 34-49.	2.0	46
8	A new refined simple TSDT-based effective meshfree method for analysis of through-thickness FG plates. Applied Mathematical Modelling, 2018, 57, 514-534.	2.2	46
9	A domain decomposition method for the stable analysis of inverse nonlinear transient heat conduction problems. International Journal of Heat and Mass Transfer, 2013, 58, 125-134.	2.5	39
10	Torsion of functionally graded hollow tubes. European Journal of Mechanics, A/Solids, 2009, 28, 551-559.	2.1	38
11	Boundary element analysis of nonlinear transient heat conduction problems involving non-homogenous and nonlinear heat sources using time-dependent fundamental solutions. Engineering Analysis With Boundary Elements, 2010, 34, 655-665.	2.0	37
12	Efficient evaluation of weakly/strongly singular domain integrals in the BEM using a singular nodal integration method. Engineering Analysis With Boundary Elements, 2013, 37, 691-698.	2.0	37
13	A background decomposition method for domain integration in weak-form meshfree methods. Computers and Structures, 2014, 142, 64-78.	2.4	34
14	A novel inverse method for identification of 3D thermal conductivity coefficients of anisotropic media by the boundary element analysis. International Journal of Heat and Mass Transfer, 2015, 89, 685-693.	2.5	34
15	Boundary element analysis of uncoupled transient thermo-elastic problems with time- and space-dependent heat sources. Applied Mathematics and Computation, 2011, 218, 1862-1882.	1.4	31
16	Exact transformation of a wide variety of domain integrals into boundary integrals in boundary element method. Communications in Numerical Methods in Engineering, 2008, 24, 1497-1521.	1.3	29
17	A new stable inverse method for identification of the elastic constants of a three-dimensional generally anisotropic solid. International Journal of Solids and Structures, 2017, 106-107, 240-250.	1.3	28
18	A comparative study of two constitutive models within an inverse approach to determine the spatial stiffness distribution in soft materials. International Journal of Mechanical Sciences, 2018, 140, 446-454.	3.6	24

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19	Meshfree radial point interpolation method for analysis of viscoplastic problems. Engineering Analysis With Boundary Elements, 2017, 82, 172-184.	2.0	23
20	Enhanced meshfree method with new correlation functions for functionally graded plates using a refined inverse sin shear deformation plate theory. European Journal of Mechanics, A/Solids, 2019, 74, 160-175.	2.1	23
21	A strong-form meshfree method for stress analysis of hyperelastic materials. Engineering Analysis With Boundary Elements, 2019, 109, 32-42.	2.0	17
22	Load identification for a viscoelastic solid by an accurate meshfree sensitivity analysis. Engineering Structures, 2020, 203, 109895.	2.6	17
23	A boundary element method of inverse non-linear heat conduction analysis with point and line heat sources. Communications in Numerical Methods in Engineering, 2000, 16, 191-203.	1.3	16
24	A parametric study of the MLPG method for thermo-mechanical solidification analysis. Engineering Analysis With Boundary Elements, 2018, 89, 10-24.	2.0	16
25	Crack detection in beam-like structures using a wavelet-based neural network. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2012, 226, 1243-1254.	0.7	15
26	Optimization of H-shaped thin-walled energy absorber by Taguchi method and a new theoretical estimation for its energy absorption. Thin-Walled Structures, 2018, 131, 33-44.	2.7	15
27	Identification of hyper-viscoelastic material parameters of a soft member connected to another unidentified member by applying a dynamic load. International Journal of Solids and Structures, 2019, 165, 50-62.	1.3	15
28	Load identification for viscoplastic materials with some unknown material parameters. International Journal of Mechanical Sciences, 2019, 153-154, 164-177.	3.6	15
29	A robust meshfree method for analysis of cohesive crack propagation problems. Theoretical and Applied Fracture Mechanics, 2019, 104, 102328.	2.1	14
30	TORSIONAL ANALYSIS OF PIEZOELECTRIC HOLLOW BARS. International Journal of Applied Mechanics, 2014, 06, 1450019.	1.3	13
31	Boundary element analysis of two- and three-dimensional thermo-elastic problems with various concentrated heat sources Boundary element analysis of two- and three-dimensional thermo-elastic problems with various concentrated heat sources. Journal of Strain Analysis for Engineering Design, 2011, 46, 227-242.	1.0	12
32	Simultaneous control of solidus and liquidus lines in alloy solidification. Engineering Analysis With Boundary Elements, 2013, 37, 211-224.	2.0	12
33	Identification of Material Parameters of a Hyper-Elastic Body With Unknown Boundary Conditions. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	1.1	12
34	Autoclaving and clinical recycling: Effects on mechanical properties of orthodontic wires. Indian Journal of Dental Research, 2012, 23, 638.	0.1	12
35	A meshfree method with dynamic node reconfiguration for analysis of thermo-elastic problems with moving concentrated heat sources. Applied Mathematical Modelling, 2020, 79, 624-638.	2.2	11
36	A Two-Constraint Method for Appropriate Determination of the Configuration of Source and Collocation Points in the Method of Fundamental Solutions for 2D Laplace Equation. Advances in Applied Mathematics and Mechanics, 2018, 10, 554-580.	0.7	11

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37	A boundary elements pseudo heat source method formulation for inverse analysis of solidification problems. Computational Mechanics, 2003, 31, 262-271.	2.2	10
38	Torsion of moderately thick hollow tubes with polygonal shapes. Mechanics Research Communications, 2007, 34, 528-537.	1.0	10
39	Closed-Form Approximate Formulas for Torsional Analysis of Hollow Tubes with Straight and Circular Edges. Journal of Mechanics, 2009, 25, 401-409.	0.7	10
40	Boundary element analysis of thermo-elastic problems with non-uniform heat sources. Journal of Strain Analysis for Engineering Design, 2010, 45, 605-627.	1.0	10
41	AN ANALYTICAL SOLUTION FOR OPTIMUM DESIGN OF SHRINK-FIT MULTI-LAYER COMPOUND CYLINDERS. International Journal of Applied Mechanics, 2012, 04, 1250043.	1.3	10
42	An improved time domain meshfree method for analysis of quasi-static and dynamic inhomogeneous viscoelastic problems. Engineering Analysis With Boundary Elements, 2019, 106, 59-67.	2.0	10
43	A comparative mechanical study of two types of femur bone implant using the finite element method. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3459.	1.0	10
44	A practical meshfree inverse method for identification of thermo-mechanical fracture load of a body by examining the crack path in the body. Engineering Analysis With Boundary Elements, 2021, 133, 236-247.	2.0	10
45	TORSION OF FUNCTIONALLY GRADED OPEN-SECTION MEMBERS. International Journal of Applied Mechanics, 2012, 04, 1250020.	1.3	9
46	An efficient load identification for viscoplastic materials by an inverse meshfree analysis. International Journal of Mechanical Sciences, 2018, 136, 303-312.	3.6	9
47	Investigating the effects of cooling rate and casting speed on continuous casting process using a 3D thermo-mechanical meshless approach. Acta Mechanica, 2018, 229, 4375-4392.	1.1	9
48	An inverse meshfree method for heat flux identification based on strain measurement. International Journal of Thermal Sciences, 2019, 144, 50-66.	2.6	9
49	Two-dimensional elastodynamic and free vibration analysis by the method of fundamental solutions. Engineering Analysis With Boundary Elements, 2020, 117, 188-201.	2.0	9
50	Calculation of dose distribution in compressible breast tissues using finite element modeling, Monte Carlo simulation and thermoluminescence dosimeters. Physics in Medicine and Biology, 2015, 60, 9185-9202.	1.6	8
51	Three-dimensional analysis of heat conduction in anisotropic composites with thin adhesive/interstitial media by the boundary element method. Engineering Analysis With Boundary Elements, 2021, 123, 36-47.	2.0	8
52	Regularization of the Boundary Integrals in the Bem Analysis of 3D Potential Problems. Journal of Mechanics, 2013, 29, 385-401.	0.7	7
53	Inverse determination of elastic constants of a hyper-elastic member with inclusions using simple displacement/length measurements. Journal of Strain Analysis for Engineering Design, 2018, 53, 529-542.	1.0	7
54	The method of fundamental solutions for anisotropic thermoelastic problems. Applied Mathematical Modelling, 2021, 95, 200-218.	2.2	7

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55	A two-stage inverse method for the evaluation of volume fraction distributions in 2D and 3D functionally graded materials. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2011, 225, 1550-1564.	1.1	6
56	INVERSE RECONSTRUCTION OF THERMAL AND MECHANICAL BOUNDARY CONDITIONS IN COUPLED NONLINEAR THERMO-ELASTIC PROBLEMS. International Journal of Applied Mechanics, 2014, 06, 1450014.	1.3	6
57	An inverse meshfree thermoelastic analysis for identification of temperature-dependent thermal and mechanical material properties. Journal of Thermal Stresses, 2020, 43, 1165-1188.	1.1	6
58	An inverse procedure for identification of loads applied to a fractured component using a meshfree method. International Journal for Numerical Methods in Engineering, 2021, 122, 1687-1705.	1.5	6
59	Analysis of transient uncoupled thermoelastic problems involving moving point heat sources using the method of fundamental solutions. Engineering Analysis With Boundary Elements, 2021, 123, 122-132.	2.0	6
60	Mechanics Based Tomography (MBT): Validation using experimental data. Journal of the Mechanics and Physics of Solids, 2021, 146, 104187.	2.3	6
61	An efficient boundary-type meshfree method for analysis of two-dimensional laser heating problems. Engineering Analysis With Boundary Elements, 2021, 132, 460-468.	2.0	6
62	Determination of optimum cooling conditions for continuous casting by a meshless method. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2013, 227, 1022-1035.	1.1	5
63	Inflation, extension and torsion analysis of compressible functionally graded hyperelastic tubes. Acta Mechanica, 2020, 231, 3947-3960.	1.1	5
64	Inverse Determination of Time-Dependent Loads in Viscoplastic Deformations Using Strain Measurements in the Deformed Configuration. International Journal of Applied Mechanics, 2018, 10, 1850057.	1.3	4
65	A novel method for the identification of the unloaded configuration of a deformed hyperelastic body. Inverse Problems in Science and Engineering, 2020, 28, 1493-1512.	1.2	4
66	Efficient 2D Analysis Of Interfacial Thermoelastic Stresses in Multiply Bonded Anisotropic Composites With Thin Adhesives. Computers, Materials and Continua, 2020, 64, 701-727.	1.5	4
67	Saint-Venant Torsion of Open-Section Members of Uniform Thickness. Journal of Strain Analysis for Engineering Design, 2011, 46, 56-66.	1.0	3
68	Vibrating Loads Identification Using Inverse Acoustics in Fluid-Structure Interaction. Advanced Materials Research, 0, 433-440, 51-57.	0.3	3
69	Closed-form formulation for torsional analysis of beams with open or closed cross sections having a crack. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2013, 227, 1953-1967.	0.7	3
70	OPTIMUM ARRANGEMENT OF LAYERS IN MULTI-LAYER COMPOUND CYLINDERS. International Journal of Applied Mechanics, 2014, 06, 1450057.	1.3	3
71	Material tailoring in functionally graded rods under torsion. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2014, 228, 3283-3295.	1.1	3
72	Boundary element analysis of 2D and 3D thermoelastic problems containing curved line heat sources. European Journal of Computational Mechanics, 2016, 25, 147-164.	0.6	3

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73	Investigating the effects of mushy zone thickness on residual stresses in alloy solidification. Meccanica, 2018, 53, 905-922.	1.2	3
74	A modification of the method of fundamental solutions for solving 2D problems with concave and complicated domains. Engineering Analysis With Boundary Elements, 2021, 123, 168-181.	2.0	3
75	The identification of the unloaded configuration of breast tissue with unknown non-homogenous stiffness parameters using surface measured data in deformed configuration. Computers in Biology and Medicine, 2021, 128, 104107.	3.9	3
76	Some Remarks on the Method of Fundamental Solutions for Two-Dimensional Elasticity. CMES - Computer Modeling in Engineering and Sciences, 2019, 121, 661-686.	0.8	3
77	A Method for Thermal Loading Design to Reduce Stresses. , 2010, , .		2
78	Torsional analysis of hollow members with sandwich wall. Journal of Sandwich Structures and Materials, 2017, 19, 317-347.	2.0	2
79	Interlaminar Stresses Analysis of Three-Dimensional Composite Laminates by the Boundary Element Method. Journal of Mechanics, 2018, 34, 829-837.	0.7	2
80	Thermal Stress Analysis of 3D Anisotropic Materials Involving Domain Heat Source by the Boundary Element Method. Journal of Mechanics, 2019, 35, 839-850.	0.7	2
81	Failure Procedure in Epoxy Adhesive Joining Composite Plates. Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 2021, 45, 337-350.	0.8	2
82	An Efficient Inverse Method for Identification of the Location and Time History of an Elastic Impact Load. Journal of Testing and Evaluation, 2009, 37, 545-555.	0.4	2
83	Adaptive Backstepping Stabilization of Uncertain Switched Nonlinear Systems in Parametric Strict-Feedback Form. , 2010, , .		1
84	A GENERAL TECHNIQUE FOR COUPLING TWO ARBITRARY METHODS IN STRESS ANALYSIS. International Journal of Computational Methods, 2012, 09, 1240027.	0.8	1
85	Non-uniform torsion of open-section members considering cross-sectional curvatures. Journal of Strain Analysis for Engineering Design, 2016, 51, 444-458.	1.0	1
86	Direct transformation of the volume integral in the boundary integral equation for treating three-dimensional steady-state anisotropic thermoelasticity involving volume heat source. International Journal of Solids and Structures, 2018, 143, 287-297.	1.3	1
87	Three-dimensional thermo-mechanical analysis of continuous casting and comparison with two-dimensional models. Journal of Strain Analysis for Engineering Design, 2018, 53, 421-434.	1.0	1
88	Boundary element analysis of thermo-elastic problems with non-uniform heat sources. Journal of Strain Analysis for Engineering Design, 2010, 45, 605-627.	1.0	1
89	Efficient Modeling of Heat Conduction across Thin Surface Coatings on 3D Anisotropic Substrate. Aerospace, 2022, 9, 321.	1.1	1
90	Identification of unknown vibrating pressures in a three-chamber unit using a Computational Inverse Acoustics Method. , 2011, , .		0

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91	A New Analytical Solution for Optimum Design of Shrink-Fit Multi-Layer Compound Cylinders. , 2012, , .		0
92	The Method of Fundamental Solutions for Two-Dimensional Elastostatic Problems with Stress Concentration and Highly Anisotropic Materials. CMES - Computer Modeling in Engineering and Sciences, 2022, 130, 1349-1369.	0.8	0
93	An adaptive integral terminal sliding mode controller to track the human upper limb during front crawl swimming. European Journal of Sport Science, 2023, 23, 499-509.	1.4	0
94	Identification of Time Variations of Moving Loads Applied to Plates Resting on Viscoelastic Foundation Using a Meshfree Method. Aerospace, 2022, 9, 357.	1.1	0