Siraj-ul-Islam

List of Publications by Year
in descending order

90	2,544	172386	233338
papers	citations	29 h-index	45 g-index

91	91	91	1027
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The numerical solution of second-order boundary-value problems by collocation method with the Haar wavelets. Mathematical and Computer Modelling, 2010, 52, 1577-1590.	2.0	136
2	A meshfree method for the numerical solution of the RLW equation. Journal of Computational and Applied Mathematics, 2009, 223, 997-1012.	1.1	112
3	New algorithms for the numerical solution of nonlinear Fredholm and Volterra integral equations using Haar wavelets. Journal of Computational and Applied Mathematics, 2013, 239, 333-345.	1.1	110
4	A new method based on Haar wavelet for the numerical solution of two-dimensional nonlinear integral equations. Journal of Computational and Applied Mathematics, 2014, 272, 70-80.	1.1	87
5	Wavelets collocation methods for the numerical solution of elliptic BV problems. Applied Mathematical Modelling, 2013, 37, 676-694.	2.2	79
6	Radial basis function collocation method for the numerical solution of the two-dimensional transient nonlinear coupled Burgersâ€™ equations. Applied Mathematical Modelling, 2012, 36, 1148-1160.	2.2	77
7	A comparative study of numerical integration based on Haar wavelets and hybrid functions. Computers and Mathematics With Applications, 2010, 59, 2026-2036.	1.4	73
8	An improved method based on Haar wavelets for numerical solution of nonlinear integral and integro-differential equations of first and higher orders. Journal of Computational and Applied Mathematics, 2014, 260, 449-469.	1.1	73
9	Haar wavelet collocation method for the numerical solution of boundary layer fluid flow problems. International Journal of Thermal Sciences, 2011, 50, 686-697.	2.6	63
10	Local radial basis function collocation method along with explicit time stepping for hyperbolic partial differential equations. Applied Numerical Mathematics, 2013, 67, 136-151.	1.2	60
11	A meshfree interpolation method for the numerical solution of the coupled nonlinear partial differential equations. Engineering Analysis With Boundary Elements, 2009, 33, 399-409.	2.0	59
12	A mesh-free numerical method for solution of the family of Kuramotoâ€“Sivashinsky equations. Applied Mathematics and Computation, 2009, 212, 458-469.	1.4	52
13	Non polynomial spline approach to the solution of a system of third-order boundary-value problems. Applied Mathematics and Computation, 2005, 168, 152-163.	1.4	51
14	Haar wavelet collocation method for three-dimensional elliptic partial differential equations. Computers and Mathematics With Applications, 2017, 73, 2023-2034.	1.4	51
15	A computational modeling of the behavior of the two-dimensional reactionâ€“diffusion Brusselator system. Applied Mathematical Modelling, 2010, 34, 3896-3909.	2.2	50
16	A numerical assessment of parabolic partial differential equations using Haar and Legendre wavelets. Applied Mathematical Modelling, 2013, 37, 9455-9481.	2.2	50
17	The solution of multipoint boundary value problems by the Optimal Homotopy Asymptotic Method. Computers and Mathematics With Applications, 2010, 59, 2000-2006.	1.4	49
18	Quadrature rules for numerical integration based on Haar wavelets and hybrid functions. Computers and Mathematics With Applications, 2011, 61, 2770-2781.	1.4	49

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19	A new approach for numerical solution of integro-differential equations via Haar wavelets. International Journal of Computer Mathematics, 2013, 90, 1971-1989.	1.0	49
20	Assessment of global and local meshless methods based on collocation with radial basis functions for parabolic partial differential equations in three dimensions. Engineering Analysis With Boundary Elements, 2012, 36, 1640-1648.	2.0	47
21	Numerical solution of two-dimensional elliptic PDEs with nonlocal boundary conditions. Computers and Mathematics With Applications, 2015, 69, 180-205.	1.4	46
22	A Computational Meshfree Technique for the Numerical Solution of the Two-Dimensional Coupled Burgers' Equations. International Journal for Computational Methods in Engineering Science and Mechanics, 2009, 10, 406-422.	1.4	43
23	Application of the Optimal Homotopy Asymptotic Method to squeezing flow. Computers and Mathematics With Applications, 2010, 59, 3858-3866.	1.4	42
24	Local RBF method for multi-dimensional partial differential equations. Computers and Mathematics With Applications, 2017, 74, 292-324.	1.4	41
25	Application of meshfree collocation method to a class of nonlinear partial differential equations. Engineering Analysis With Boundary Elements, 2009, 33, 661-667.	2.0	40
26	A meshfree method for numerical solution of KdV equation. Engineering Analysis With Boundary Elements, 2008, 32, 849-855.	2.0	38
27	A numerical technique for solution of the MRLW equation using quartic B-splines. Applied Mathematical Modelling, 2010, 34, 4151-4160.	2.2	36
28	Structural optimization based on meshless element free Galerkin and level set methods. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 144-163.	3.4	34
29	Numerical solution of special 12th-order boundary value problems using differential transform method. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 1132-1138.	1.7	32
30	A comparative analysis of local meshless formulation for multi-asset option models. Engineering Analysis With Boundary Elements, 2016, 65, 159-176.	2.0	30
31	Nonpolynomial spline approach to the solution of a system of second-order boundary-value problems. Applied Mathematics and Computation, 2006, 173, 1208-1218.	1.4	29
32	A mesh-free method for the numerical solution of the KdVâ€“Burgers equation. Applied Mathematical Modelling, 2009, 33, 3442-3449.	2.2	29
33	Non-polynomial splines approach to the solution of sixth-order boundary-value problems. Applied Mathematics and Computation, 2008, 195, 270-284.	1.4	27
34	New quadrature rules for highly oscillatory integrals with stationary points. Journal of Computational and Applied Mathematics, 2015, 278, 75-89.	1.1	27
35	A class of methods based on non-polynomial spline functions for the solution of a special fourth-order boundary-value problems with engineering applications. Applied Mathematics and Computation, 2006, 174, 1169-1180.	1.4	26
36	Numerical solution of complex modified Kortewegâ€“de Vries equation by mesh-free collocation method. Computers and Mathematics With Applications, 2009, 58, 566-578.	1.4	26

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37	Local meshless method for PDEs arising from models of wound healing. Applied Mathematical Modelling, 2017, 48, 688-710.	2.2	26
38	A multi-resolution collocation procedure for time-dependent inverse heat problems. International Journal of Thermal Sciences, 2018, 128, 160-174.	2.6	23
39	A numerical method for third-order non-linear boundary-value problems in engineering. International Journal of Computer Mathematics, 2005, 82, 103-109.	1.0	22
40	Quadratic non-polynomial spline approach to the solution of a system of second-order boundary-value problems. Applied Mathematics and Computation, 2006, 179, 153-160.	1.4	22
41	A class of methods based on non-polynomial sextic spline functions for the solution of a special fifth-order boundary-value problems. Journal of Mathematical Analysis and Applications, 2006, 321, 651-660.	0.5	20
42	A local meshless method for the numerical solution of spaceâ€dependent inverse heat problems. Mathematical Methods in the Applied Sciences, 2021, 44, 3066-3079.	1.2	20
43	Non-polynomial spline solution of singularly perturbed boundary-value problems. Applied Mathematics and Computation, 2008, 196, 6-16.	1.4	19
44	Numerical integration of multi-dimensional highly oscillatory, gentle oscillatory and non-oscillatory integrands based on wavelets and radial basis functions. Engineering Analysis With Boundary Elements, 2012, 36, 1284-1295.	2.0	19
45	Meshless methods for multivariate highly oscillatory Fredholm integral equations. Engineering Analysis With Boundary Elements, 2015, 53, 100-112.	2.0	19
46	Meshless analysis of elliptic interface boundary value problems. Engineering Analysis With Boundary Elements, 2018, 92, 38-49.	2.0	19
47	Haar wavelets multi-resolution collocation analysis of unsteady inverse heat problems. Inverse Problems in Science and Engineering, 2019, 27, 1498-1520.	1.2	18
48	Thermo-Mechanical Analysis of Hot Shape Rolling of Steel by a Meshless Method. Procedia Engineering, 2011, 10, 3173-3178.	1.2	17
49	Meshless collocation procedures for time-dependent inverse heat problems. International Journal of Heat and Mass Transfer, 2017, 113, 1152-1167.	2.5	17
50	Meshless analysis of parabolic interface problems. Engineering Analysis With Boundary Elements, 2018, 94, 134-152.	2.0	17
51	Meshless and wavelets based complex quadrature of highly oscillatory integrals and the integrals with stationary points. Engineering Analysis With Boundary Elements, 2013, 37, 1136-1144.	2.0	16
52	Local meshless method for convection dominated steady and unsteady partial differential equations. Engineering With Computers, 2019, 35, 803-812.	3.5	16
53	Quartic non-polynomial spline approach to the solution of a system of third-order boundary-value problems. Journal of Mathematical Analysis and Applications, 2007, 335, 1095-1104.	0.5	15
54	Efficient numerical methods for Bessel type of oscillatory integrals. Journal of Computational and Applied Mathematics, 2017, 315, 161-174.	1.1	15

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55	Local meshless methods for second order elliptic interface problems with sharp corners. Journal of Computational Physics, 2020, 416, 109500.	1.9	15
56	A numerical method based on polynomial sextic spline functions for the solution of special fifth-order boundary-value problems. Applied Mathematics and Computation, 2006, 181, 356-361.	1.4	14
57	A comparative study of numerical solutions of a class of KdV equation. Applied Mathematics and Computation, 2008, 199, 425-434.	1.4	14
58	Family of numerical methods based on non-polynomial splines for solution of contact problems. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 1448-1460.	1.7	14
59	An efficient numerical algorithm based on Haar wavelet for solving a class of linear and nonlinear nonlocal boundary-value problems. Calcolo, 2016, 53, 621-633.	0.6	14
60	Numerical Solution of Singularly Perturbed Two-point BVPs Using Nonuniform Haar Wavelets. International Journal for Computational Methods in Engineering Science and Mechanics, 2011, 12, 168-175.	1.4	13
61	The localized radial basis functions for parameterized level set based structural optimization. Engineering Analysis With Boundary Elements, 2020, 113, 296-305.	2.0	13
62	Meshless methods for two-dimensional oscillatory Fredholm integral equations. Journal of Computational and Applied Mathematics, 2018, 335, 33-50.	1.1	12
63	Local radial basis function collocation method for stokes equations with interface conditions. Engineering Analysis With Boundary Elements, 2020, 119, 246-256.	2.0	12
64	Local meshless differential quadrature collocation method for time-fractional PDEs. Discrete and Continuous Dynamical Systems - Series S, 2020, 13, 2641-2654.	0.6	12
65	A boundary element and level set based bi-directional evolutionary structural optimisation with a volume constraint. Engineering Analysis With Boundary Elements, 2017, 80, 152-161.	2.0	11
66	Approximation of highly oscillatory integrals containing special functions. Journal of Computational and Applied Mathematics, 2020, 365, 112372.	1.1	11
67	Approximation of Cauchy-type singular integrals with high frequency Fourier kernel. Engineering Analysis With Boundary Elements, 2021, 130, 209-219.	2.0	11
68	An Efficient Modified Haar Wavelet Collocation Method for Numerical Solution of Two-Dimensional Elliptic PDEs. Differential Equations and Dynamical Systems, 2017, 25, 347-360.	0.5	9
69	Numerical solution of 2D and 3D elliptic-type interface models with regular interfaces. Engineering With Computers, 2019, 35, 1081-1102.	3.5	9
70	Analysis of meshless weak and strong formulations for boundary value problems. Engineering Analysis With Boundary Elements, 2017, 80, 1-17.	2.0	8
71	Meshless methods for one-dimensional oscillatory Fredholm integral equations. Applied Mathematics and Computation, 2018, 324, 156-173.	1.4	8
72	On numerical evaluation of integrals involving oscillatory Bessel and Hankel functions. Numerical Algorithms, 2019, 82, 1325-1343.	1.1	8

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73	A parametrized level set based topology optimization method for analysing thermal problems. Computers and Mathematics With Applications, 2021, 99, 99-112.	1.4	8
74	New algorithms for approximation of Bessel transforms with high frequency parameter. Journal of Computational and Applied Mathematics, 2022, 399, 113705.	1.1	8
75	Quartic Non-Polynomial Splines Approach to the Solution of a System of Second-Order Boundary-Value Problems. International Journal of High Performance Computing Applications, 2007, 21, 42-49.	2.4	7
76	Estimation of Dispersion in an Open Channel from an Elevated Source Using an Upwind Local Meshless Method. International Journal of Computational Methods, 2017, 14, 1750009.	0.8	7
77	A Local Meshless Method for Steady State Convection Dominated Flows. International Journal of Computational Methods, 2017, 14, 1750067.	0.8	7
78	Numerical methods for multivariate highly oscillatory integrals. International Journal of Computer Mathematics, 2018, 95, 1024-1046.	1.0	5
79	Numerical solution of compartmental models by meshless and finite difference methods. Applied Mathematics and Computation, 2014, 238, 408-435.	1.4	4
80	A computational modeling and simulation of spatial dynamics in biological systems. Applied Mathematical Modelling, 2016, 40, 4524-4542.	2.2	4
81	Meshless and multi-resolution collocation techniques for parabolic interface models. Applied Mathematics and Computation, 2018, 335, 313-332.	1.4	4
82	An efficient approach for solving nonlinear multidimensional SchrÃ¶dinger equations. Engineering Analysis With Boundary Elements, 2021, 132, 263-270.	2.0	4
83	A smooth approximation for the solution of special non-linear third-order boundary-value problems based on non-polynomial splines. International Journal of Computer Mathematics, 2006, 83, 397-407.	1.0	3
84	A comparative study of meshless complex quadrature rules for highly oscillatory integrals. Engineering Analysis With Boundary Elements, 2015, 52, 71-80.	2.0	3
85	Meshless and Multi-Resolution Collocation Techniques for Steady State Interface Models. International Journal of Computational Methods, 2018, 15, 1750073.	0.8	3
86	Meshless approximation method of one-dimensional oscillatory Fredholm integral equations. Filomat, 2020, 34, 861-877.	0.2	3
87	A Differential Quadrature Based Approach for Volterra Partial Integro-Differential Equation with a Weakly Singular Kernel. CMES - Computer Modeling in Engineering and Sciences, 2020, 124, 915-935.	0.8	2
88	Numerical solution and characteristic study of time-fractional shocks collision. Physica Scripta, 2021, 96, 045214.	1.2	1
89	An Adaptive Perturbation Scheme in Finite Difference Gradient Approximation. , 2007, , .		0
90	RBF Solution Method for 1D Oscillatory Fredholm Integral Equations Having Kernel Function Free-of-Stationary-Points. , 2018, , .		0