Mohammed Seaid

List of Publications by Citations

148	1,419	18	29
papers	citations	h-index	g-index
159	1,650	2.3	4.92
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
148	Simplified PN Approximations to the Equations of Radiative Heat Transfer and Applications. *Journal of Computational Physics*, **2002**, 183, 652-675	4.1	129
147	Well-balanced finite volume schemes for pollutant transport by shallow water equations on unstructured meshes. *Journal of Computational Physics*, **2007**, 226, 180-203	4.1	82
146	Lattice Boltzmann methods for shallow water flow applications. *International Journal for Numerical Methods in Fluids*, **2007**, 55, 673-692	1.9	42
145	NUMERICAL METHODS AND OPTIMAL CONTROL FOR GLASS COOLING PROCESSES. *Transport Theory and Statistical Physics*, **2002**, 31, 513-529		42
144	Efficient numerical methods for radiation in gas turbines. *Journal of Computational and Applied Mathematics*, **2004**, 170, 217-239	2.4	39
143	A new finite volume method for flux-gradient and source-term balancing in shallow water equations. *Computer Methods in Applied Mechanics and Engineering*, **2010**, 199, 3324-3335	5.7	32
142	Adaptive solutions of -approximations to radiative heat transfer in glass. *International Journal of Thermal Sciences*, **2005**, 44, 1013-1023	4.1	32
141	Non-oscillatory relaxation methods for the shallow-water equations in one and two space dimensions. *International Journal for Numerical Methods in Fluids*, **2004**, 46, 457-484	1.9	31
140	A flux-limiter method for dam-break flows over erodible sediment beds. *Applied Mathematical Modelling*, **2012**, 36, 4847-4861	4.5	29
139	Radiation models for thermal flows at low Mach number. *Journal of Computational Physics*, **2006**, 215, 506-525	4.1	29
138	Semi-lagrangian integration schemes for viscous incompressible flows. *Computational Methods in Applied Mathematics*, **2002**, 2, 392-409	1.2	29
137	Numerical simulation of natural and mixed convection flows by Galerkin-characteristic method. *International Journal for Numerical Methods in Fluids*, **2007**, 53, 1819-1845	1.9	27
136	A partition of unity FEM for time-dependent diffusion problems using multiple enrichment functions. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 245-265	2.4	26
135	Solution of the Sediment Transport Equations Using a Finite Volume Method Based on Sign Matrix. *SIAM Journal of Scientific Computing*, **2009**, 31, 2866-2889	2.6	23
134	A simple finite volume method for the shallow water equations. *Journal of Computational and Applied Mathematics*, **2010**, 234, 58-72	2.4	23
133	Simulation of transient gas flow at pipe-to-pipe intersections. *International Journal for Numerical Methods in Fluids*, **2008**, 56, 485-506	1.9	20
132	Convergence and stability of finite element modified method of characteristics for the incompressible Navier Stokes equations. *Journal of Numerical Mathematics*, **2007**, 15,	3.4	19

131	Time-independent hybrid enrichment for finite element solution of transient conduction–radiation in diffusive grey media. *Journal of Computational Physics*, **2013**, 251, 81-101	4.1	18
130	A lattice-Boltzmann relaxation scheme for coupled convection–radiation systems. *Journal of Computational Physics*, **2007**, 226, 1408-1431	4.1	18
129	A consistent approach for the coupling of radiation and hydrodynamics at low Mach number. *Journal of Computational Physics*, **2007**, 225, 1039-1065	4.1	18
128	Method of lines for stochastic boundary-value problems with additive noise. *Applied Mathematics and Computation*, **2008**, 199, 301-314	2.7	18
127	A finite element modified method of characteristics for convective heat transport. *Numerical Methods for Partial Differential Equations*, **2008**, 24, 776-798	2.5	17
126	Mixed enrichment for the finite element method in heterogeneous media. *International Journal for Numerical Methods in Engineering*, **2015**, 101, 54-78	2.4	16
125	A non-homogeneous Riemann solver for shallow water equations in porous media. *Applicable Analysis*, **2016**, 95, 2181-2202	0.8	15
124	A Semi-Lagrangian Method for a Fokker-Planck Equation Describing Fiber Dynamics. *Journal of Scientific Computing*, **2009**, 38, 349-367	2.3	15
123	High-resolution relaxation scheme for the two-dimensional Riemann problems in gas dynamics. *Numerical Methods for Partial Differential Equations*, **2006**, 22, 397-413	2.5	15
122	A comparison of approximate models for radiation in gas turbines. *Progress in Computational Fluid Dynamics*, **2004**, 4, 191	0.7	15
121	On the Quasi-monotone Modified Method of Characteristics for Transport-diffusion Problems with Reactive Sources. *Computational Methods in Applied Mathematics*, **2001**, 2, 186-210	1.2	15
120	Efficient Preconditioning of Linear Systems Arising from the Discretization of Radiative Transfer Equation. *Lecture Notes in Computational Science and Engineering*, **2003**, 211-236	0.3	15
119	A partition of unity finite element method for three-dimensional transient diffusion problems with sharp gradients. *Journal of Computational Physics*, **2019**, 396, 702-717	4.1	14
118	An enriched finite element model with q-refinement for radiative boundary layers in glass cooling. *Journal of Computational Physics*, **2014**, 258, 718-737	4.1	14
117	An essentially non-oscillatory semi-Lagrangian method for tidal flow simulations. *International Journal for Numerical Methods in Engineering*, **2010**, 81, 805-834	2.4	13
116	Stable numerical methods for conservation laws with discontinuous flux function. *Applied Mathematics and Computation*, **2006**, 175, 383-400	2.7	13
115	Numerical Solvers for Radiation and Conduction in High Temperature Gas Flows. *Flow, Turbulence and Combustion*, **2005**, 75, 173-190	2.5	13
114	Inverse algorithm for real-time road roughness estimation for autonomous vehicles. *Archive of Applied Mechanics*, **2020**, 90, 1333-1348	2.2	12

113	A fast finite volume solver for multi-layered shallow water flows with mass exchange. *Journal of Computational Physics*, **2014**, 272, 23-45	4.1	12
112	A finite volume method for scalar conservation laws with stochastic time-space dependent flux functions. *Journal of Computational and Applied Mathematics*, **2013**, 237, 614-632	2.4	12
111	Multigrid Newton-Krylov method for radiation in diffusive semitransparent media. *Journal of Computational and Applied Mathematics*, **2007**, 203, 498-515	2.4	12
110	Enskog-like discrete velocity models for vehicular traffic flow. *Networks and Heterogeneous Media*, **2007**, 2, 481-496	1.6	12
109	Stochastic model reduction for polynomial chaos expansion of acoustic waves using proper orthogonal decomposition. *Reliability Engineering and System Safety*, **2020**, 195, 106733	6.3	12
108	A three-dimensional enriched finite element method for nonlinear transient heat transfer in functionally graded materials. *International Journal of Heat and Mass Transfer*, **2020**, 155, 119804	4.9	11
107	Identifying the wavenumber for the inverse Helmholtz problem using an enriched finite element formulation. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 340, 615-629	5.7	11
106	An unstructured finite-volume method for coupled models of suspended sediment and bed load transport in shallow-water flows. *International Journal for Numerical Methods in Fluids*, **2013**, 72, 967-993	1.9	11
105	An Eulerian-Lagrangian method for coupled parabolic-hyperbolic equations. *Applied Numerical Mathematics*, **2009**, 59, 754-768	2.5	11
104	Simplified radiative models for low-Mach number reactive flows. *Applied Mathematical Modelling*, **2008**, 32, 971-991	4.5	11
103	Lattice Boltzmann simulation of dispersion in two-dimensional tidal flows. *International Journal for Numerical Methods in Engineering*, **2009**, 77, 878-900	2.4	10
102	Discrete-Velocity Models and Relaxation Schemes for Traffic Flows. *SIAM Journal of Scientific Computing*, **2006**, 28, 1582-1596	2.6	10
101	A Runge-Kutta-Chebyshev SPH algorithm for elastodynamics. *Acta Mechanica*, **2016**, 227, 1813-1835	2.1	9
100	Projection finite volume method for shallow water flows. *Mathematics and Computers in Simulation*, **2015**, 118, 87-101	3.3	9
99	Weakly compressible and advection approximations of incompressible viscous flows. *Communications in Numerical Methods in Engineering*, **2006**, 22, 831-847		9
98	Compressible and incompressible limits for hyperbolic systems with relaxation. *Journal of Computational and Applied Mathematics*, **2004**, 168, 41-52	2.4	9
97	Enriched finite elements for initial-value problem of transverse electromagnetic waves in time domain. *Computers and Structures*, **2017**, 182, 354-367	4.5	8
96	A partition of unity finite element method for nonlinear transient diffusion problems in heterogeneous materials. *Computational and Applied Mathematics*, **2019**, 38, 1	2.4	8

95	A stabilized meshless method for time-dependent convection-dominated flow problems. *Mathematics and Computers in Simulation*, **2017**, 137, 159-176	3.3	8
94	An L^2-Projection for the Galerkin-Characteristic Solution of Incompressible Flows. *SIAM Journal of Scientific Computing*, **2011**, 33, 3110-3131	2.6	8
93	Lattice Boltzmann simulation of depth-averaged models in flow hydraulics. *International Journal of Computational Fluid Dynamics*, **2008**, 22, 507-522	1.2	8
92	A domain decomposition method for conservation laws with discontinuous flux function. *Applied Numerical Mathematics*, **2007**, 57, 361-373	2.5	8
91	Asymptotic-preserving schemes for unsteady flow simulations. *Computers and Fluids*, **2006**, 35, 872-878	2.8	8
90	Lagrange-Galerkin method for unsteady free surface water waves. *Computing and Visualization in Science*, **2006**, 9, 209-228	1	8
89	Uniformly accurate schemes for relaxation approximations to fluid dynamic equations. *Applied Mathematics Letters*, **2003**, 16, 1123-1127	3.5	8
88	A discontinuous Galerkin method for two-layer shallow water equations. *Mathematics and Computers in Simulation*, **2016**, 120, 12-23	3.3	7
87	A family of finite volume Eulerian-Lagrangian methods for two-dimensional conservation laws. *Journal of Computational and Applied Mathematics*, **2015**, 285, 181-202	2.4	7
86	Iterative solvers for generalized finite element solution of boundary-value problems. *Numerical Linear Algebra With Applications*, **2018**, 25, e2205	1.6	7
85	Enhanced conformal perfectly matched layers for Bernstein-Bézier finite element modelling of short wave scattering. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 355, 614-638	5.7	7
84	A local radial basis function projection method for incompressible flows in water eutrophication. *Engineering Analysis With Boundary Elements*, **2019**, 106, 528-540	2.6	7
83	Assessment of coupling conditions in water way intersections. *International Journal for Numerical Methods in Fluids*, **2013**, 71, 1438-1460	1.9	7
82	Mathematical Development and Verification of a Finite Volume Model for Morphodynamic Flow Applications. *Advances in Applied Mathematics and Mechanics*, **2011**, 3, 470-492	2.1	7
81	Multilayer Saint-Venant equations over movable beds. *Discrete and Continuous Dynamical Systems - Series B*, **2011**, 15, 917-934	1.3	7
80	Solving Wick-stochastic water waves using a Galerkin finite element method. *Mathematics and Computers in Simulation*, **2009**, 79, 3523-3533	3.3	7
79	Eulerian-Lagrangian time-stepping methods for convection-dominated problems. *International Journal of Computer Mathematics*, **2008**, 85, 421-439	1.2	7
78	Wick-stochastic finite element solution of reaction-diffusion problems. *Journal of Computational and Applied Mathematics*, **2007**, 203, 516-532	2.4	7

77	hp-adaptive discontinuous Galerkin methods for simplified PN approximations of frequency-dependent radiative transfer. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 301, 52-79	5.7	6
76	A finite element semi-Lagrangian method with L2 interpolation. *International Journal for Numerical Methods in Engineering*, **2012**, 90, 1485-1507	2.4	6
75	Simplified PN Models and Natural Convection-Radiation. *Mathematics in Industry*, **2008**, 397-401	0.2	6
74	A Class of the Relaxation Schemes for Two-Dimensional Euler Systems of Gas Dynamics. *Lecture Notes in Computer Science*, **2002**, 930-939	0.9	6
73	Slope limiters for radial basis functions applied to conservation laws with discontinuous flux function. *Engineering Analysis With Boundary Elements*, **2016**, 66, 49-65	2.6	5
72	Numerical modelling of sediment transport in the Nador lagoon (Morocco). *Applied Numerical Mathematics*, **2012**, 62, 1749-1766	2.5	5
71	A two-dimensional finite volume morphodynamic model on unstructured triangular grids. *International Journal for Numerical Methods in Fluids*, **2009**, 63, n/a-n/a	1.9	5
70	A Spectral Stochastic Semi-Lagrangian Method for Convection-Diffusion Equations with Uncertainty. *Journal of Scientific Computing*, **2009**, 39, 371-393	2.3	5
69	Combined characteristics and finite volume methods for sediment transport and bed morphology in surface water flows. *Mathematics and Computers in Simulation*, **2011**, 81, 2073-2086	3.3	5
68	Comparison of unstructured finite-volume morphodynamic models in contracting channel flows. *Mathematics and Computers in Simulation*, **2011**, 81, 2087-2097	3.3	5
67	A Galerkin-Characteristic Method for Large-Eddy Simulation of Turbulent Flow and Heat Transfer. *SIAM Journal of Scientific Computing*, **2008**, 30, 2734-2754	2.6	5
66	Relaxation WENO schemes for multidimensional hyperbolic systems of conservation laws. *Numerical Methods for Partial Differential Equations*, **2007**, 23, 1211-1234	2.5	5
65	Optimal control in radiative transfer. *Optimization Methods and Software*, **2007**, 22, 917-936	1.3	5
64	Lattice-Boltzmann type relaxation systems and high order relaxation schemes for the incompressible Navier-Stokes equations. *Mathematics of Computation*, **2007**, 77, 943-966	1.6	5
63	Improved Applications of Relaxation Schemes for Hyperbolic Systems of Conservation Laws and Convection-diffusion Problems. *Computational Methods in Applied Mathematics*, **2006**, 6, 56-86	1.2	5
62	Discrete-velocity relaxation methods for large eddy simulation. *Applied Mathematics and Computation*, **2006**, 182, 739-753	2.7	5
61	A Highly Accurate Modified Method of Characteristics for Convection-Dominated Flow Problems. *Computational Methods in Applied Mathematics*, **2003**, 3, 623-646	1.2	5
60	A meshless method for numerical simulation of depth-averaged turbulence flows using a k-? model. *International Journal for Numerical Methods in Fluids*, **2016**, 80, 3-22	1.9	5

59	Explicit time integration with lumped mass matrix for enriched finite elements solution of time domain wave problems. *Applied Mathematical Modelling*, **2020**, 77, 1273-1293	4.5	5
58	A stabilized finite element method for stochastic incompressible Navier–Stokes equations. *International Journal of Computer Mathematics*, **2012**, 89, 2576-2602	1.2	4
57	Numerical simulation of stochastic replicator models in catalyzed RNA-like polymers. *Mathematics and Computers in Simulation*, **2009**, 79, 3577-3586	3.3	4
56	Simulation of the Lock-Exchange Hydraulics using the Discontinuous Galerkin Method. *International Journal of Computer Applications*, **2012**, 43, 20-28	1.1	4
55	Coupled finite element–lattice Boltzmann analysis. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 197, 4505-4511	5.7	4
54	Validation of simplified PN models for radiative transfer in combustion systems. *Communications in Numerical Methods in Engineering*, **2006**, 24, 85-96		4
53	Numerical solution of Rosseland model for transient thermal radiation in non-grey optically thick media using enriched basis functions. *Mathematics and Computers in Simulation*, **2021**, 180, 258-275	3.3	4
52	The boundary element method applied to the solution of the anomalous diffusion problem. *Engineering Analysis With Boundary Elements*, **2019**, 109, 129-142	2.6	3
51	Flux limiters in the coupling of radiation and hydrodynamic models. *Journal of Computational and Applied Mathematics*, **2004**, 168, 425-435	2.4	3
50	A stabilized semi-Lagrangian finite element method for natural convection in Darcy flows. *Computational and Mathematical Methods*, **2020**, e1140	0.9	2
49	Discontinuous Galerkin method for two-dimensional bilayer shallow water equations. *Journal of Engineering Mathematics*, **2016**, 96, 1-21	1.2	2
48	A conjugate gradient algorithm for solving the Galerkin-characteristic approximation of interfacial flows. *Applied Numerical Mathematics*, **2012**, 62, 1197-1214	2.5	2
47	Application of mesh-adaptation for pollutant transport by water flow. *Mathematics and Computers in Simulation*, **2009**, 79, 3415-3423	3.3	2
46	A two-dimensional finite volume solution of dam-break hydraulics over erodible sediment beds. *Springer Proceedings in Mathematics*, **2011**, 875-891		2
45	Finite element P1 solution of unsteady thermal flow past a circular cylinder with radiation. *International Journal of Computer Mathematics*, **2008**, 85, 641-656	1.2	2
44	A Finite Volume Method for Large-Eddy Simulation of Shallow Water Equations. *Springer Proceedings in Mathematics and Statistics*, **2014**, 741-748	0.2	2
43	A New Monte Carlo Approach for Conservation Laws and Relaxation Systems. *Lecture Notes in Computer Science*, **2004**, 276-283	0.9	2
42	A Generalized Rusanov method for Saint-Venant Equations with Variable Horizontal Density. *Springer Proceedings in Mathematics*, **2011**, 89-96		2

41	A Conservative Semi-Lagrangian Finite Volume Method for Convection‑Diffusion Problems on Unstructured Grids. *Journal of Scientific Computing*, **2020**, 85, 1	2.3	2
40	Efficient computational models for shallow water flows over multilayer erodible beds. *Engineering Computations*, **2019**, 37, 401-429	1.4	2
39	Data-driven polynomial chaos expansions for characterization of complex fluid rheology: Case study of phosphate slurry. *Reliability Engineering and System Safety*, **2021**, 216, 107923	6.3	2
38	Fast and accurate simulations of shallow water equations in large networks. *Computers and Mathematics With Applications*, **2019**, 78, 2107-2126	2.7	1
37	A Frequency-Domain Approach for the (hbox {P}_1) Approximation of Time-Dependent Radiative Transfer. *Journal of Scientific Computing*, **2015**, 62, 623-651	2.3	1
36	Two-dimensional numerical modelling of shallow water flows over multilayer movable beds. *Applied Mathematical Modelling*, **2020**, 88, 474-497	4.5	1
35	A new numerical treatment of moving wet/dry fronts in dam-break flows. *Journal of Applied Mathematics and Computing*, **2019**, 59, 489-516	1.8	1
34	A simple multi-layer finite volume solver for density-driven shallow water flows. *Mathematics and Computers in Simulation*, **2014**, 99, 170-189	3.3	1
33	A new composite scheme for two-layer shallow water flows with shocks. *Journal of Applied Mathematics and Computing*, **2014**, 44, 467-489	1.8	1
32	Large-Eddy Simulation of Thermal Flows based on Discrete-Velocity Models. *SIAM Journal of Scientific Computing*, **2008**, 30, 1756-1777	2.6	1
31	Non-oscillatory methods for relaxation approximation of Hamilton‑Jacobi equations. *Applied Mathematics and Computation*, **2006**, 183, 170-183	2.7	1
30	Recent Advances in Semi-Lagrangian Modelling of Flow through the Strait of Gibraltar. *Lecture Notes in Computer Science*, **2004**, 89-96	0.9	1
29	A comparison between the meshless and the finite volume methods for shallow water flows. *Springer Proceedings in Mathematics*, **2011**, 13-20		1
28	GPU Accelerated Finite Volume Methods for Three-Dimensional Shallow Water Flows. *Springer Proceedings in Mathematics and Statistics*, **2017**, 137-144	0.2	1
27	Multi-hp adaptive discontinuous Galerkin methods for simplified PN approximations of 3D radiative transfer in non-gray media. *Applied Numerical Mathematics*, **2020**, 150, 252-273	2.5	1
26	A Galerkin-characteristic unified finite element method for moving thermal fronts in porous media. *Journal of Computational and Applied Mathematics*, **2020**, 113159	2.4	1
25	A surrogate model for efficient quantification of uncertainties in multilayer shallow water flows. *Environmental Modelling and Software*, **2021**, 144, 105176	5.2	1
24	Development of time-space adaptive smoothed particle hydrodynamics method with Runge-Kutta Chebyshev scheme. *Engineering Analysis With Boundary Elements*, **2021**, 126, 55-67	2.6	0

23	A Three-Dimensional Monotonicity-Preserving Modified Method of Characteristics on Unstructured Tetrahedral Meshes. *International Journal of Computational Methods*, **2021**, 18, 2050027	1.1	0
22	Fast inverse solver for identifying the diffusion coefficient in time-dependent problems using noisy data. *Archive of Applied Mechanics*, **2021**, 91, 1623-1639	2.2	0
21	Non-intrusive polynomial chaos methods for uncertainty quantification in wave problems at high frequencies. *Journal of Computational Science*, **2021**, 53, 101344	3.4	0
20	An enriched Galerkin-characteristics finite element method for convection-dominated and transport problems. *Applied Numerical Mathematics*, **2021**, 167, 119-142	2.5	0
19	Special volume on mathematical modeling with applications. *Numerical Algorithms*, **2020**, 84, 1239-1240	2.1	
18	Large eddy simulation of turbulent heat transport in the Strait of Gibraltar. *Mathematics and Computers in Simulation*, **2009**, 79, 3444-3454	3.3	
17	Incompressible Navier-Stokes equation solvers based on lattice Boltzmann relaxation systems. *Proceedings in Applied Mathematics and Mechanics*, **2007**, 7, 2100001-2100002	0.2	
16	Extension of weakly compressible approximations to incompressible thermal flows. *Communications in Numerical Methods in Engineering*, **2006**, 24, 33-48		
15	A multigrid discrete-ordinates solution for isotropic transport equation. *Proceedings in Applied Mathematics and Mechanics*, **2004**, 4, 494-495	0.2	
14	A Monte Carlo method for the Broadwell model with relaxation. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 691-692	0.2	
13	A Cell-Centered Semi-Lagrangian Finite Volume Method for Solving Two-Dimensional Coupled Burgers Equations. *Computational and Mathematical Methods*, **2022**, 2022, 1-18	0.9	
12	Animating Water Waves Using Semi-Lagrangian Techniques. *Mathematics in Industry*, **2006**, 494-498	0.2	
11	Uncertainty Quantification of Bathymetric Effects in a Two-Layer Shallow Water Model: Case of the Gibraltar Strait. *Springer Water*, **2020**, 779-791	0.3	
10	New Criteria for Mesh Adaptation in Finite Volume Simulation of Planar Ionization Wavefront Propagation. *Springer Proceedings in Mathematics and Statistics*, **2017**, 547-555	0.2	
9	Adaptive cell-centered finite volume method for non-homogeneous diffusion problems: Application to transport in porous media. *Springer Proceedings in Mathematics*, **2011**, 79-87		
8	Multilevel Adaptive Lagrange-Galerkin Methods for Unsteady Incompressible Viscous Flows. *Lecture Notes in Computer Science*, **2021**, 230-243	0.9	
7	Enriched Galerkin-Characteristics Finite Element Method for Incompressible Navier--Stokes Equations. *SIAM Journal of Scientific Computing*, **2021**, 43, A1336-A1361	2.6	
6	An Enhanced Finite Element Algorithm for Thermal Darcy Flows with Variable Viscosity. *Lecture Notes in Computer Science*, **2021**, 215-229	0.9	