Rainald Löhner

List of Publications by Year
in descending order

233 papers	8,269 citations	44069 48 h-index	53230 85 g-index
239 all docs	239 docs citations	239 times ranked	4104 citing authors

#	Article	IF	Citations
1	Generation of three-dimensional unstructured grids by the advancing-front method. International Journal for Numerical Methods in Fluids, 1988, 8, 1135-1149.	1.6	520
2	A Hermite WENO-based limiter for discontinuous Galerkin method on unstructured grids. Journal of Computational Physics, 2007, 225, 686-713.	3.8	477
3	Finite element flux-corrected transport (FEM-FCT) for the euler and Navier-Stokes equations. International Journal for Numerical Methods in Fluids, 1987, 7, 1093-1109.	1.6	379
4	An adaptive finite element scheme for transient problems in CFD. Computer Methods in Applied Mechanics and Engineering, 1987, 61, 323-338.	6.6	270
5	A Fast, Matrix-free Implicit Method for Compressible Flows on Unstructured Grids. Journal of Computational Physics, 1998, 146, 664-690.	3.8	266
6	A discontinuous Galerkin method based on a Taylor basis for the compressible flows on arbitrary grids. Journal of Computational Physics, 2008, 227, 8875-8893.	3.8	208
7	Some useful data structures for the generation of unstructured grids. Communications in Applied Numerical Methods, 1988, 4, 123-135.	0.5	169
8	A p-multigrid discontinuous Galerkin method for the Euler equations on unstructured grids. Journal of Computational Physics, 2006, 211, 767-783.	3.8	167
9	Regridding Surface Triangulations. Journal of Computational Physics, 1996, 126, 1-10.	3.8	161
10	On the computation of multi-material flows using ALE formulation. Journal of Computational Physics, 2004, 194, 304-328.	3.8	152
11	Adaptiveh-refinement on 3D unstructured grids for transient problems. International Journal for Numerical Methods in Fluids, 1992, 14, 1407-1419.	1.6	148
12	Edge-based finite element scheme for the Euler equations. AIAA Journal, 1994, 32, 1183-1190.	2.6	147
13	Conservative Load Projection and Tracking for Fluid-Structure Problems. AIAA Journal, 1997, 35, 687-692.	2.6	145
14	From medical images to anatomically accurate finite element grids. International Journal for Numerical Methods in Engineering, 2001, 51, 985-1008.	2.8	138
15	Blood Flow Modeling in Carotid Arteries with Computational Fluid Dynamics and MR Imaging. Academic Radiology, 2002, 9, 1286-1299.	2.5	132
16	A vectorized particle tracer for unstructured grids. Journal of Computational Physics, 1990, 91, 22-31.	3.8	131
17	Robust, Vectorized Search Algorithms for Interpolation on Unstructured Grids. Journal of Computational Physics, 1995, 118, 380-387.	3.8	130
18	Automatic unstructured grid generators. Finite Elements in Analysis and Design, 1997, 25, 111-134.	3.2	124

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19	Efficient simulation of blood flow past complex endovascular devices using an adaptive embedding technique. IEEE Transactions on Medical Imaging, 2005, 24, 468-476.	8.9	121
20	Adaptive remeshing for transient problems. Computer Methods in Applied Mechanics and Engineering, 1989, 75, 195-214.	6.6	118
21	Running unstructured grid€based CFD solvers on modern graphics hardware. International Journal for Numerical Methods in Fluids, 2011, 66, 221-229.	1.6	110
22	On the modeling of pedestrian motion. Applied Mathematical Modelling, 2010, 34, 366-382.	4.2	101
23	Large-Eddy Simulations of a Supersonic Jet and Its Near-Field Acoustic Properties. AIAA Journal, 2009, 47, 1849-1865.	2.6	100
24	Blood-flow models of the circle of Willis from magnetic resonance data. Journal of Engineering Mathematics, 2003, 47, 369-386.	1.2	98
25	A finite point method for compressible flow. International Journal for Numerical Methods in Engineering, 2002, 53, 1765-1779.	2.8	92
26	An accurate, fast, matrix-free implicit method for computing unsteady flows on unstructured grids. Computers and Fluids, 2001, 30, 137-159.	2.5	88
27	Adaptive embedded and immersed unstructured grid techniques. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2173-2197.	6.6	86
28	Simulation of intracranial aneurysm stenting: Techniques and challenges. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3567-3582.	6.6	86
29	Renumbering strategies for unstructured-grid solvers operating on shared-memory, cache-based parallel machines. Computer Methods in Applied Mechanics and Engineering, 1998, 163, 95-109.	6.6	85
30	On the simulation of flows with violent free surface motion. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 5597-5620.	6.6	83
31	Parallel unstructured grid generation. Computer Methods in Applied Mechanics and Engineering, 1992, 95, 343-357.	6.6	78
32	Computational hemodynamics framework for the analysis of cerebral aneurysms. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 822-839.	2.1	78
33	Fast p-Multigrid Discontinuous Galerkin Method for Compressible Flows at All Speeds. AIAA Journal, 2008, 46, 635-652.	2.6	75
34	Extensions and improvements of the advancing front grid generation technique. Communications in Numerical Methods in Engineering, 1996, 12, 683-702.	1.3	74
35	On the computation of steady-state compressible flows using a discontinuous Galerkin method. International Journal for Numerical Methods in Engineering, 2008, 73, 597-623.	2.8	71
36	Adaptive embedded unstructured grid methods. International Journal for Numerical Methods in Engineering, 2004, 60, 641-660.	2.8	69

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37	Merging of intersecting triangulations for finite element modeling. Journal of Biomechanics, 2001, 34, 815-819.	2.1	67
38	Simulation of flows with violent free surface motion and moving objects using unstructured grids. International Journal for Numerical Methods in Fluids, 2007, 53, 1315-1338.	1.6	59
39	An unstructured grid-based, parallel free surface solver. Applied Numerical Mathematics, 1999, 31, 271-293.	2.1	58
40	Fast numerical solutions of patientâ€specific blood flows in 3D arterial systems. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 73-85.	2.1	58
41	A general advancing front technique for filling space with arbitrary objects. International Journal for Numerical Methods in Engineering, 2004, 61, 1977-1991.	2.8	56
42	A parallel advancing front grid generation scheme. International Journal for Numerical Methods in Engineering, 2001, 51, 663-678.	2.8	54
43	A hybrid Cartesian grid and gridless method for compressible flows. Journal of Computational Physics, 2006, 214, 618-632.	3.8	53
44	Three-dimensional parallel unstructured grid generation. International Journal for Numerical Methods in Engineering, 1995, 38, 905-925.	2.8	52
45	Modeling subway air flow using CFD. Tunnelling and Underground Space Technology, 2014, 43, 20-31.	6.2	52
46	An advancing front point generation technique. , 1998, 14, 1097-1108.		51
47	Generation of viscous grids at ridges and corners. International Journal for Numerical Methods in Engineering, 2009, 77, 1247-1289.	2.8	51
48	Validation of the computational fluidâ€"structure interaction simulation at real-scale tests of a flexible 29m umbrella in natural wind flow. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 400-413.	3.9	50
49	Some useful renumbering strategies for unstructured grids. International Journal for Numerical Methods in Engineering, 1993, 36, 3259-3270.	2.8	49
50	Anisotropic Adaptive Simulations in Aerodynamics. , 2010, , .		49
51	Extension of Harten-Lax-van Leer Scheme for Flows at All Speeds.. AIAA Journal, 2005, 43, 1160-1166.	2.6	48
52	Fluid dynamics of flapping aquatic flight in the bird wrasse: three-dimensional unsteady computations with fin deformation. Journal of Experimental Biology, 2002, 205, 2997-3008.	1.7	45
53	Generation of non-isotropic unstructured grids via directional enrichment. International Journal for Numerical Methods in Engineering, 2000, 49, 219-232.	2.8	44
54	Semiâ€automatic porting of a largeâ€scale Fortran CFD code to GPUs. International Journal for Numerical Methods in Fluids, 2012, 69, 314-331.	1.6	44

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55	Multistage explicit advective prediction for projection-type incompressible flow solvers. Journal of Computational Physics, 2004, 195, 143-152.	3.8	43
56	Deflated preconditioned conjugate gradient solvers for the pressure–Poisson equation: Extensions and improvements. International Journal for Numerical Methods in Engineering, 2011, 87, 2-14.	2.8	43
57	Mesh adaptation in fluid mechanics. Engineering Fracture Mechanics, 1995, 50, 819-847.	4.3	41
58	Computation of the 3-D Unsteady Flow Past Deforming Geometries. International Journal of Computational Fluid Dynamics, 1999, 13, 83-99.	1.2	41
59	The numerical simulation of strongly unsteady flow with hundreds of moving bodies. International Journal for Numerical Methods in Fluids, 1999, 31, 113-120.	1.6	40
60	Deflated preconditioned conjugate gradient solvers for the Pressure–Poisson equation. Journal of Computational Physics, 2008, 227, 10196-10208.	3.8	39
61	Extending the Range and Applicability of the Loose Coupling Approach for FSI Simulations. , 2006, , 82-100.		39
62	Unstructured Navier-Stokes grid generation at corners and ridges. International Journal for Numerical Methods in Fluids, 2003, 43, 717-728.	1.6	38
63	A linelet preconditioner for incompressible flow solvers. International Journal of Numerical Methods for Heat and Fluid Flow, 2003, 13, 133-147.	2.8	38
64	Optimal placement of sensors for contaminant detection based on detailed 3D CFD simulations. Engineering Computations, 2005, 22, 260-273.	1.4	37
65	Minimization of indirect addressing for edge-based field solvers. Communications in Numerical Methods in Engineering, 2002, 18, 335-343.	1.3	35
66	Recent Advances in Parallel Advancing Front Grid Generation. Archives of Computational Methods in Engineering, 2014, 21, 127-140.	10.2	34
67	Surface triangulation over intersecting geometries. International Journal for Numerical Methods in Engineering, 1999, 44, 1359-1376.	2.8	33
68	Improving the speed and accuracy of projection-type incompressible flow solvers. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 3087-3109.	6.6	32
69	Towards overcoming the LES crisis. International Journal of Computational Fluid Dynamics, 2019, 33, 87-97.	1.2	32
70	Detailed simulation of viral propagation in the built environment. Computational Mechanics, 2020, 66, 1093-1107.	4.0	31
71	High-Reynolds Number Viscous Flow Computations Using an Unstructured-Grid Method. Journal of Aircraft, 2005, 42, 483-492.	2.4	30
72	On the 'most normal' normal. Communications in Numerical Methods in Engineering, 2008, 24, 1641-1652.	1.3	30

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73	Computational modelling of blood flow in side arterial branches after stenting of cerebral aneurysms. International Journal of Computational Fluid Dynamics, 2008, 22, 669-676.	1.2	29
74	Hemodynamic analysis of intracranial aneurysms with moving parent arteries: Basilar tip aneurysms. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 1219-1227.	2.1	29
75	Cavity-Based Operators for Mesh Adaptation. , 2013, , .		29
76	Improved error and work estimates for high‑order elements. International Journal for Numerical Methods in Fluids, 2013, 72, 1207-1218.	1.6	28
77	A coupled CFD/CSD methodology for modeling weapon detonation and fragmentation. , 1999, , .		27
78	Applications of patient-specific CFD in medicine and life sciences. International Journal for Numerical Methods in Fluids, 2003, 43, 637-650.	1.6	27
79	Assessing maximum possible damage for contaminant release events. Engineering Computations, 2004, 21, 748-760.	1.4	27
80	VLES Study of Flow and Dispersion Patterns in Heterogeneous Urban Areas. , 2006, , .		26
81	Adaptive Embedded/Immersed Unstructured Grid Techniques. Archives of Computational Methods in Engineering, 2007, 14, 279-301.	10.2	26
82	Recent advances in computational wind engineering and fluid–structure interaction. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 144, 14-23.	3.9	25
83	Calculation of Ship Sinkage and Trim Using a Finite Element Method and Unstructured Grids. International Journal of Computational Fluid Dynamics, 2002, 16, 217-227.	1.2	23
84	An unstructured-grid based volume-of-fluid method for extreme wave and freely-floating structure interactions. Journal of Hydrodynamics, 2006, 18, 415-422.	3.2	23
85	Parallelizing the construction of indirect access arrays for shared-memory machines. Communications in Numerical Methods in Engineering, 1998, 14, 773-781.	1.3	22
86	Numerical modeling of the pattern and wear rate on a structural steel plate using DEM. Minerals Engineering, 2019, 137, 290-302.	4.3	22
87	Numerical Simulation of Shock Interaction With a Modern Main Battlefield Tank. , 1991, , .		21
88	Edges, stars, superedges and chains. Computer Methods in Applied Mechanics and Engineering, 1994, 111, 255-263.	6.6	20
89	VLES Study of Ship Stack Gas Dynamics. , 2004, , .		20
90	Comparison of body‑fitted, embedded and immersed solutions of low Reynolds‑number 3‑D incompressible flows. International Journal for Numerical Methods in Fluids, 2008, 57, 13-30.	1.6	20

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91	Numerical simulation of H2/air detonation using unstructured mesh. Shock Waves, 2009, 19, 151-162.	1.9	20
92	A Fast, Matrix-free Implicit Method for Computing Low Mach Number Flows on Unstructured Grids. International Journal of Computational Fluid Dynamics, 2000, 14, 133-157.	1.2	19
93	Hybrid Grid Generation Method for Complex Geometries. AIAA Journal, 2010, 48, 2639-2647.	2.6	19
94	Generation of unstructured grids suitable for RANS calculations. , 1999, , .		18
95	Numerical simulation of shock-box interaction using an adaptive finite element scheme. AIAA Journal, 1994, 32, 682-692.	2.6	17
96	Electromagnetics via the Taylor-Galerkin Finite Element Method on Unstructured Grids. Journal of Computational Physics, 1994, 110, 310-319.	3.8	17
97	Combination of body–fitted and embedded grids for external vehicle aerodynamics. Engineering Computations, 2008, 25, 28-41.	1.4	16
98	A 2nd Generation Parallel Advancing Front Grid Generator. , 2013, , 457-474.		16
99	A fast finite element solver for incompressible flows. , 1990, , .		15
100	Adjoint-based design of shock mitigation devices. International Journal for Numerical Methods in Fluids, 2010, 64, 443-472.	1.6	15
101	Error and work estimates for high–order elements. International Journal for Numerical Methods in Fluids, 2011, 67, 2184-2188.	1.6	15
102	A coupled fluid FEM-DEM technique for predicting blasting operations in tunnels. Underground Space (China), 2018, 3, 310-316.	7.5	15
103	On the Computation of Compressible Turbulent Flows on Unstructured Grids. International Journal of Computational Fluid Dynamics, 2001, 14, 253-270.	1.2	14
104	Parallel Unstructured Grid GMRES+LU-SGS Method for Turbulent Flows. , 2003, , .		14
105	Improvements in speed for explicit, transient compressible flow solvers. International Journal for Numerical Methods in Fluids, 2008, 56, 2229-2244.	1.6	14
106	Advancing front techniques for filling space with arbitrary separated objects. Finite Elements in Analysis and Design, 2010, 46, 140-151.	3.2	14
107	Porting of an Edge-Based CFD Solver to GPUs. , 2010, , .		14
108	Handling tens of thousands of cores with industrial/legacy codes: Approaches, implementation and timings. Computers and Fluids, 2013, 85, 53-62.	2.5	14

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109	An accurate, fast, matrix-free implicit method for computing unsteady flows on unstructured grids. , 1999, , .		13
110	On the simulation of highly nonlinear wave-breakwater interactions. Journal of Hydrodynamics, 2010, 22, 932-938.	3.2	13
111	VLES Study of MUST Experiment. , 2005, , .		12
112	Verification of a Pedestrian Simulation Tool Using the NIST Recommended Test Cases. Transportation Research Procedia, 2014, 2, 237-245.	1.5	12
113	Comparison of Lattice-Boltzmann and Finite Difference Solvers. , 2014, , .		12
114	On mesh-particle techniques. Computational Particle Mechanics, 2014, 1, 199-209.	3.0	12
115	High fidelity modeling of aerosol pathogen propagation in built environments with moving pedestrians. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3428.	2.1	12
116	High-Fidelity Simulation of Pathogen Propagation, Transmission and Mitigation in the Built Environment. Archives of Computational Methods in Engineering, 2021, 28, 4237-4262.	10.2	12
117	Projective prediction of pressure increments. Communications in Numerical Methods in Engineering, 2004, 21, 201-207.	1.3	11
118	Parabolic recovery of boundary gradients. Communications in Numerical Methods in Engineering, 2007, 24, 1611-1615.	1.3	11
119	Generating seamless surfaces for transport and dispersion modeling in GIS. GeoInformatica, 2012, 16, 307-327.	2.7	11
120	A Multiscale Approach for the Numerical Simulation of Turbulent Flows with Droplets. Archives of Computational Methods in Engineering, 2021, 28, 4185-4204.	10.2	11
121	A parallel advancing front grid generation scheme. , 2000, , .		10
122	High-Reynolds Number Viscous Flow Computations Using Unstructured-Grid Method. , 2004, , .		9
123	A hybrid building–block and gridless method for compressible flows. International Journal for Numerical Methods in Fluids, 2009, 59, 459-474.	1.6	9
124	On the Achievable Speeds of Finite Difference Solvers on CPUs and GPUs. , 2013, , .		9
125	Postprocessing–based interpolation schemes for nested Cartesian finite difference grids of different size. International Journal for Numerical Methods in Fluids, 2019, 89, 196-215.	1.6	9
126	A feature-preserving volumetric technique to merge surface triangulations. International Journal for Numerical Methods in Engineering, 2002, 55, 177-190.	2.8	8

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127	Improving the Speed and Accuracy of Projection-Type Incompressible Flow Solvers. , 2003, , .		8
128	A Hybrid Cartesian Grid and Gridless Method for Compressible Flows. , 2005, , .		8
129	Semiâ€automatic porting of a largeâ€scale CFD code to multiâ€graphics processing unit clusters. International Journal for Numerical Methods in Fluids, 2012, 69, 1786-1796.	1.6	8
130	Using ensemble Kalman filter to determine parameters for computational crowd dynamics simulations. Engineering Computations, 2018, 35, 2612-2628.	1.4	8
131	Ray tracing with a space-filling finite element mesh. International Journal for Numerical Methods in Engineering, 1994, 37, 3571-3580.	2.8	7
132	Dynamic deactivation for advection-dominated contaminant transport. Communications in Numerical Methods in Engineering, 2004, 20, 639-646.	1.3	7
133	Modeling of Near-Field Blast Wave Evolution. , 2006, , .		7
134	Porting of FEFLO to Multi-GPU Clusters. , 2011, , .		7
135	On Critical Densities and Velocities for Pedestrians Entering a Crowd. Transportation Research Procedia, 2014, 2, 394-399.	1.5	7
136	Finite element simulation of a turbulent MHD system: comparison to a pseudo-spectral simulation. Computer Physics Communications, 1995, 86, 25-39.	7.5	6
137	Topside LPD17 Flow and Temperature Study with an Implicit Monolithic Scheme. , 2003, , .		6
138	On the Loose Coupling of Implicit Time-Marching Codes. , 2005, , .		6
139	The empty bin: A data structure for spatial search of time-varying data. Communications in Numerical Methods in Engineering, 2006, 23, 1111-1119.	1.3	6
140	Comparison of Body-Fitted, Embedded and Immersed 3-D Euler Predictions for Blast Loads on Columns. , 2007, , .		6
141	Experimental and numerical analysis of a sphere falling into a viscous fluid. International Journal for Numerical Methods in Fluids, 2012, 69, 1496-1521.	1.6	6
142	Validation of a Pedestrian Simulation Tool Using the NIST Stairwell Evacuation Data. Transportation Research Procedia, 2014, 2, 739-744.	1.5	6
143	Mechanisms Involved in the Formation of Biocompatible Lipid Polymeric Hollow Patchy Particles. Langmuir, 2015, 31, 6639-6648.	3.5	6
144	Efficient two-step Runge-Kutta methods for fluid dynamics simulations. Applied Numerical Mathematics, 2021, 159, 1-20.	2.1	6

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145	A vertex-centered finite volume method with interface sharpening technique for compressible two-phase flows. Journal of Computational Physics, 2022, 460, 111194.	3.8	6
146	Advances in Adaptive Embedded Unstructured Grid Methods. , 2004, , .		5
147	Selective edge removal for unstructured grids with Cartesian cores. Journal of Computational Physics, 2005, 206, 208-226.	3.8	5
148	Numerical Simulation of Long-Duration Blast Wave Evolution in Confined Facilities. , 2009, , .		5
149	On maximum achievable speeds for field solvers. International Journal of Numerical Methods for Heat and Fluid Flow, 2014, 24, 1537-1544.	2.8	5
150	Practical applicability of optimizations and performance models to complex stencil-based loop kernels in CFD. International Journal of High Performance Computing Applications, 2019, 33, 602-618.	3.7	5
151	Overnight industrial LES for external aerodynamics. Computers and Fluids, 2021, 214, 104771.	2.5	5
152	A runtime based comparison of highly tuned lattice Boltzmann and finite difference solvers. International Journal of High Performance Computing Applications, 2021, 35, 370-390.	3.7	5
153	A deterministic pathogen transmission model based on high-fidelity physics. Computer Methods in Applied Mechanics and Engineering, 2022, 401, 114929.	6.6	5
154	Timings of an Unstructured-Grid CFD Code on Common Hardware Platforms and Compilers. , 2007, , .		4
155	Timings of FEFLO on the SGI-Ice Machines. , 2011, , .		4
156	Semi-Automatic Porting of a General Fortran CFD Code to GPUS: the Difficult Modules. , 2011, , .		4
157	On the Influence of Columns in Densely Populated Corridors. Transportation Research Procedia, 2014, 2, 2-9.	1.5	4
158	Recent Advances in a Cartesian Solver for Industrial LES. , 2019, , .		4
159	A multiscale approach for the study of particle-laden flows using a continuous model. Computer Methods in Applied Mechanics and Engineering, 2022, 401, 115174.	6.6	4
160	Computation of Compressible Flows using a Two-equation Turbulence Model on Unstructured Grids. International Journal of Computational Fluid Dynamics, 2003, 17, 87-93.	1.2	3
161	A Hybrid Building-Block and Gridless Method for Compressible Flows. , 2006, , .		3
162	Comparison of Body-Fitted, Embedded and Immersed Solutions of Low Reynolds-Number Incompressible Flows. , 2007, , .		3

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163	Generation of Viscous Grid with Ridges and Corners. , 2007, , .		3
164	A Godunov-Type Scheme for Atmospheric Flows on Unstructured Grids: Euler and Navier-Stokes Equations. Pure and Applied Geophysics, 2007, 164, 217-244.	1.9	3
165	Image-based analysis of blood flow modification in stented aneurysms. Proceedings of SPIE, 2009, , .	0.8	3
166	An advancing front technique for filling space with arbitrary separated objects. International Journal for Numerical Methods in Engineering, 2009, 78, 1618-1630.	2.8	3
167	Cache-efficient renumbering for vectorization. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, n/a-n/a.	2.1	3
168	Adjoint-Based Design of Passive and Active Shock Mitigation Devices. , 2010, , .		3
169	Advances in Feflo. , 2013, , .		3
170	Real-time micro-modelling of city evacuations. Computational Particle Mechanics, 2018, 5, 71-86.	3.0	3
171	Short note: empirical findings for spatial and temporal discretization orders for the Taylor â€" Green vortex. International Journal of Numerical Methods for Heat and Fluid Flow, 2021, 31, 186-191.	2.8	3
172	Explicit twoâ€step Rungeâ€Kutta methods for computational fluid dynamics solvers. International Journal for Numerical Methods in Fluids, 2021, 93, 429-444.	1.6	3
173	A 2nd Generation Parallel Advancing Front Grid Generator. , 2013, , .		3
174	Numerical Modeling of Underwater Explosion with Fluid-Structure Interaction. , 2022, , .		3
175	A Godunov-Type Scheme for Atmospheric Flows on Unstructured Grids: Scalar Transport. Pure and Applied Geophysics, 2006, 163, 1699-1735.	1.9	2
176	Adjoint-Based Design of Shock Mitigation Devices. , 2009, , .		2
177	Simulation of Multiphase Blast-Structure Interaction via Coupled CFD and CSD Codes. , 2010, , .		2
178	Error and Work Estimates for High-Order Elements. , 2011, , .		2
179	The simulation of dust effects from fragmenting charges. International Journal of Numerical Methods for Heat and Fluid Flow, 2016, 26, 999-1026.	2.8	2
180	Overnight Industrial LES for External Aerodynamics. , 2020, , .		2

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181	A Class of Matrix-Free Implicit Methods for Compressible Flows on Unstructured Grids. , 2001, , 93-98.		2
182	Selective Edge Removal for Unstructured Grids with Cartesian Cores. , 2005, , .		1
183	An unstructured-grid based volume-of-fluid method for extreme wave and freely-floating structure interactions. Journal of Hydrodynamics, 2006, 18, 405-412.	3.2	1
184	Combination of Body-Fitted and Embedded Grids for External Vehicle Aerodynamics. , 2007, , .		1
185	Timings of an Unstructured-Grid CFD Code on Common Hardware Platforms and Compilers. , 2008, , .		1
186	Improvements in Speed for Explicit, Transient Compressible Flow Solvers. , 2008, , .		1
187	Extensions and Improvements of a RANS Grid Generator. , 2008, , .		1
188	Deflated Preconditioned Conjugate Gradient Solvers: Extensions and Improvements. , 2010, , .		1
189	Large-Scale Blast Calculations on GPU Clusters. , 2012, , .		1
190	An assessment of architecturally appealing, semi-open shock mitigation devices. Engineering Computations, 2012, 29, 19-30.	1.4	1
191	Improved Error and Work Estimates for High Order Elements. , 2012, , .		1
192	Load Balancing for Multiphysics. , 2013, , .		1
193	Recent Advances in Scaling Up Complex Fluid-Structure Interaction Simulations. , 2017, , .		1
194	Running large‐scale CFD applications on Intel‐KNL‐based clusters. International Journal for Numerical Methods in Fluids, 2018, 86, 699-716.	1.6	1
195	Simple Fault-tolerant Computing for Field Solvers. International Journal of Computational Fluid Dynamics, 2020, 34, 583-596.	1.2	1
196	Experiences Porting a High Order Cartesian Finite Difference Solver to GPUs Using OpenACC. , 2021, , .		1
197	Efficient Use of Computer Hardware. , 0, , 299-350.		1
198	Embedded and Immersed Grid Techniques. , 0, , 383-417.		1

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199	Scaling Up Multiphysics. Computational Methods in Applied Sciences (Springer), 2014, , 389-403.	0.3	1
200	Adaptive Mesh Refinement. , 0, , 269-297.		1
201	A Study of The Motion of Bubbles from Underwater Explosions With Efficient Numerical Solvers. , 2022, , .		1
202	Finite element approximation of complex functions for spatial optimization and search. Communications in Numerical Methods in Engineering, 2006, 22, 823-830.	1.3	0
203	Assessment of a Lagrangian Incompressible Flow Code. , 2007, , .		0
204	Introduction and General Considerations. , 0, , 1-6.		0
205	Grid Generation. , 0, , 35-107.		0
206	SIMPACT-FEFLO Coupling: Recent Advances. , 2008, , .		0
207	Approximation Theory. , 0, , 109-122.		0
208	Coarse-Grain Deflation for Preconditioned Conjugate Gradient Solvers: Application to the Pressure Poisson Equation. , 2009, , .		0
209	Simulation of Separation of Stores Partially Filled with Fluids. , 2011, , .		0
210	Deflated Solvers for Linear Elasticity and Helmholtz Equation. , 2011, , .		0
211	Inter-Element Stabilization for Linear Large-Deformation Elements to Solve Coupled CFD/CSD Blast and Impact problems. , 2013, , .		0
212	A Simple Algorithm to Enforce Mass Conservation for CFD Solvers With Embedded, Moving CSD Surfaces. , 2014, , .		0
213	On Mesh-Particle Techniques. , 2014, , .		0
214	Load balancing for chemically reacting flows. International Journal of Numerical Methods for Heat and Fluid Flow, 2017, 27, 2768-2774.	2.8	0
215	On Finite Difference Solvers with Minimal Memory Access. , 2018, , .		0
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