Michael Dumbser

List of Publications by Year
in descending order

193	11,877	25014	30058
papers	citations	57	103
		h-index	g-index

194	194	194	3681
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A unified framework for the construction of one-step finite volume and discontinuous Galerkin schemes on unstructured meshes. Journal of Computational Physics, 2008, 227, 8209-8253.	1.9	761
2	Arbitrary high order non-oscillatory finite volume schemes on unstructured meshes for linear hyperbolic systems. Journal of Computational Physics, 2007, 221, 693-723.	1.9	652
3	Quadrature-free non-oscillatory finite volume schemes on unstructured meshes for nonlinear hyperbolic systems. Journal of Computational Physics, 2007, 226, 204-243.	1.9	549
4	Rungeâ€“Kutta discontinuous Galerkin method using WENO limiters II: Unstructured meshes. Journal of Computational Physics, 2008, 227, 4330-4353.	1.9	426
5	An arbitrary high-order discontinuous Galerkin method for elastic waves on unstructured meshes - II. The three-dimensional isotropic case. Geophysical Journal International, 2006, 167, 319-336.	1.0	337
6	An arbitrary high-order discontinuous Galerkin method for elastic waves on unstructured meshes - I. The two-dimensional isotropic case with external source terms. Geophysical Journal International, 2006, 166, 855-877.	1.0	330
7	A new 3D parallel SPH scheme for free surface flows. Computers and Fluids, 2009, 38, 1203-1217.	1.3	272
8	Finite volume schemes of very high order of accuracy for stiff hyperbolic balance laws. Journal of Computational Physics, 2008, 227, 3971-4001.	1.9	259
9	A posteriori subcell limiting of the discontinuous Galerkin finite element method for hyperbolic conservation laws. Journal of Computational Physics, 2014, 278, 47-75.	1.9	248
10	Arbitrary high order PNPM schemes on unstructured meshes for the compressible Navierâ€“Stokes equations. Computers and Fluids, 2010, 39, 60-76.	1.3	243
11	An arbitrary high-order Discontinuous Galerkin method for elastic waves on unstructured meshes - V. Local time stepping andp-adaptivity. Geophysical Journal International, 2007, 171, 695-717.	1.0	233
12	Efficient, high accuracy ADER-WENO schemes for hydrodynamics and divergence-free magnetohydrodynamics. Journal of Computational Physics, 2009, 228, 2480-2516.	1.9	209
13	Very high order PNPM schemes on unstructured meshes for the resistive relativistic MHD equations. Journal of Computational Physics, 2009, 228, 6991-7006.	1.9	191
14	A Simple Extension of the Osher Riemann Solver toÂNon-conservative Hyperbolic Systems. Journal of Scientific Computing, 2011, 48, 70-88.	1.1	177
15	ADER-WENO finite volume schemes with spaceâ€“time adaptive mesh refinement. Journal of Computational Physics, 2013, 248, 257-286.	1.9	170
16	A matrix stability analysis of the carbuncle phenomenon. Journal of Computational Physics, 2004, 197, 647-670.	1.9	142
17	An arbitrary high-order Discontinuous Galerkin method for elastic waves on unstructured meshes - III. Viscoelastic attenuation. Geophysical Journal International, 2007, 168, 224-242.	1.0	142
18	ADER schemes on unstructured meshes for nonconservative hyperbolic systems: Applications to geophysical flows. Computers and Fluids, 2009, 38, 1731-1748.	1.3	141

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19	A new efficient formulation of the HLLEM Riemann solver for general conservative and non-conservative hyperbolic systems. Journal of Computational Physics, 2016, 304, 275-319.	1.9	139
20	High order ADER schemes for a unified first order hyperbolic formulation of continuum mechanics: Viscous heat-conducting fluids and elastic solids. Journal of Computational Physics, 2016, 314, 824-862.	1.9	138
21	Building Blocks for Arbitrary High Order Discontinuous Galerkin Schemes. Journal of Scientific Computing, 2006, 27, 215-230.	1.1	131
22	On Universal Osher-Type Schemes for General Nonlinear Hyperbolic Conservation Laws. Communications in Computational Physics, 2011, 10, 635-671.	0.7	125
23	Multidimensional HLLC Riemann solver for unstructured meshes â€“ With application to Euler and MHD flows. Journal of Computational Physics, 2014, 261, 172-208.	1.9	121
24	FORCE schemes on unstructured meshes II: Non-conservative hyperbolic systems. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 625-647.	3.4	119
25	An arbitrary high-order discontinuous Galerkin method for elastic waves on unstructured meshes - IV. Anisotropy. Geophysical Journal International, 2007, 169, 1210-1228.	1.0	117
26	ADER Schemes for Nonlinear Systems of Stiff Advectionâ€“Diffusionâ€“Reaction Equations. Journal of Scientific Computing, 2011, 48, 173-189.	1.1	114
27	Discontinuous Galerkin methods for wave propagation in poroelastic media. Geophysics, 2008, 73, T77-T97.	1.4	112
28	Well-balanced high-order centred schemes for non-conservative hyperbolic systems. Applications to shallow water equations with fixed and mobile bed. Advances in Water Resources, 2009, 32, 834-844.	1.7	112
29	Spaceâ€“time adaptive ADER discontinuous Galerkin finite element schemes with a posteriori sub-cell finite volume limiting. Computers and Fluids, 2015, 118, 204-224.	1.3	112
30	A sub-cell based indicator for troubled zones in RKDG schemes and a novel class of hybrid RKDG+HWENO schemes. Journal of Computational Physics, 2007, 226, 586-620.	1.9	105
31	FORCE schemes on unstructured meshes I: Conservative hyperbolic systems. Journal of Computational Physics, 2009, 228, 3368-3389.	1.9	104
32	Efficient implementation of ADER schemes for Euler and magnetohydrodynamical flows on structured meshes â€“ Speed comparisons with Rungeâ€“Kutta methods. Journal of Computational Physics, 2013, 235, 934-969.	1.9	102
33	A direct Arbitrary-Lagrangianâ€“Eulerian ADER-WENO finite volume scheme on unstructured tetrahedral meshes for conservative and non-conservative hyperbolic systems in 3D. Journal of Computational Physics, 2014, 275, 484-523.	1.9	102
34	Fast high order ADER schemes for linear hyperbolic equations. Journal of Computational Physics, 2004, 197, 532-539.	1.9	99
35	The discontinuous Galerkin method with Laxâ€“Wendroff type time discretizations. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 4528-4543.	3.4	92
36	A simple robust and accurate a posteriori sub-cell finite volume limiter for the discontinuous Galerkin method on unstructured meshes. Journal of Computational Physics, 2016, 319, 163-199.	1.9	91

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37	A New Family of High Order Unstructured MOOD and ADER Finite Volume Schemes for Multidimensional Systems of Hyperbolic Conservation Laws. Communications in Computational Physics, 2014, 16, 718-763.	0.7	85
38	Well-balanced high-order centered schemes on unstructured meshes for shallow water equations with fixed and mobile bed. Advances in Water Resources, 2010, 33, 291-303.	1.7	81
39	A pressure-based semi-implicit spaceâ€“time discontinuous Galerkin method on staggered unstructured meshes for the solution of the compressible Navierâ€“Stokes equations at all Mach numbers. Journal of Computational Physics, 2017, 341, 341-376.	1.9	81
40	Divergence-free MHD on unstructured meshes using high order finite volume schemes based on multidimensional Riemann solvers. Journal of Computational Physics, 2015, 299, 687-715.	1.9	80
41	ADER discontinuous Galerkin schemes for aeroacoustics. Comptes Rendus - Mecanique, 2005, 333, 683-687.	2.1	78
42	Multidimensional Riemann problem with self-similar internal structure. Part II â€“ Application to hyperbolic conservation laws on unstructured meshes. Journal of Computational Physics, 2015, 287, 269-292.	1.9	74
43	High order spaceâ€“time adaptive ADER-WENO finite volume schemes for non-conservative hyperbolic systems. Computer Methods in Applied Mechanics and Engineering, 2014, 268, 359-387.	3.4	73
44	Solving the relativistic magnetohydrodynamics equations with ADER discontinuous Galerkin methods, a posteriori subcell limiting and adaptive mesh refinement. Monthly Notices of the Royal Astronomical Society, 2015, 452, 3010-3029.	1.6	71
45	A staggered spaceâ€“time discontinuous Galerkin method for the three-dimensional incompressible Navierâ€“Stokes equations on unstructured tetrahedral meshes. Journal of Computational Physics, 2016, 319, 294-323.	1.9	71
46	Central Weighted ENO Schemes for Hyperbolic Conservation Laws on Fixed and Moving Unstructured Meshes. SIAM Journal of Scientific Computing, 2017, 39, A2564-A2591.	1.3	71
47	Arbitrary high-order finite volume schemes for seismic wave propagation on unstructured meshes in 2D and 3D. Geophysical Journal International, 2007, 171, 665-694.	1.0	70
48	Numerical simulations of solute transport in highly heterogeneous formations: A comparison of alternative numerical schemes. Advances in Water Resources, 2013, 52, 178-189.	1.7	70
49	Arbitrary-Lagrangian-Eulerian One-Step WENO Finite Volume Schemes on Unstructured Triangular Meshes. Communications in Computational Physics, 2013, 14, 1174-1206.	0.7	69
50	A new class of Moving-Least-Squares WENOâ€“SPH schemes. Journal of Computational Physics, 2014, 270, 278-299.	1.9	63
51	Construction and comparison of parallel implicit kinetic solvers in three spatial dimensions. Journal of Computational Physics, 2014, 256, 17-33.	1.9	62
52	Lagrangian ADER-WENO finite volume schemes on unstructured triangular meshes based on genuinely multidimensional HLL Riemann solvers. Journal of Computational Physics, 2014, 267, 112-138.	1.9	62
53	Linearized acoustic perturbation equations for low Mach number flow with variable density and temperature. Journal of Computational Physics, 2007, 224, 352-364.	1.9	61
54	Three-dimensional flow evolution after a dam break. Journal of Fluid Mechanics, 2010, 663, 456-477.	1.4	61

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55	Explicit one-step time discretizations for discontinuous Galerkin and finite volume schemes based on local predictors. Journal of Computational Physics, 2011, 230, 4232-4247.	1.9	61
56	Arbitrary-Lagrangianâ€“Eulerian Discontinuous Galerkin schemes with a posteriori subcell finite volume limiting on moving unstructured meshes. Journal of Computational Physics, 2017, 346, 449-479.	1.9	61
57	Highâ€order ADERâ€WENO ALE schemes on unstructured triangular meshesâ€”application of several node solvers to hydrodynamics and magnetohydrodynamics. International Journal for Numerical Methods in Fluids, 2014, 76, 737-778.	0.9	60
58	High order direct Arbitrary-Lagrangian-Eulerian schemes on moving Voronoi meshes with topology changes. Journal of Computational Physics, 2020, 407, 109167.	1.9	59
59	High-order unstructured Lagrangian one-step WENO finite volume schemes for non-conservative hyperbolic systems: Applications to compressible multi-phase flows. Computers and Fluids, 2013, 86, 405-432.	1.3	58
60	A highly accurate discontinuous Galerkin method for complex interfaces between solids and moving fluids. Geophysics, 2008, 73, T23-T35.	1.4	56
61	Numerical simulations of high Lundquist number relativistic magnetic reconnection. Monthly Notices of the Royal Astronomical Society, 2011, 418, 1004-1011.	1.6	56
62	A staggered semi-implicit spectral discontinuous Galerkin scheme for the shallow water equations. Applied Mathematics and Computation, 2013, 219, 8057-8077.	1.4	55
63	High order ADER schemes for a unified first order hyperbolic formulation of Newtonian continuum mechanics coupled with electro-dynamics. Journal of Computational Physics, 2017, 348, 298-342.	1.9	55
64	A highâ€order discontinuous Galerkin method with timeâ€accurate local time stepping for the Maxwell equations. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2009, 22, 77-103.	1.2	54
65	Efficient implementation of high order unstructured WENO schemes for cavitating flows. Computers and Fluids, 2013, 86, 141-168.	1.3	53
66	A high order semi-implicit discontinuous Galerkin method for the two dimensional shallow water equations on staggered unstructured meshes. Applied Mathematics and Computation, 2014, 234, 623-644.	1.4	53
67	Submerged granular channel flows driven by gravity. Advances in Water Resources, 2014, 63, 1-10.	1.7	53
68	Comparison of solvers for the generalized Riemann problem for hyperbolic systems with source terms. Journal of Computational Physics, 2012, 231, 6472-6494.	1.9	51
69	Direct Arbitrary-Lagrangianâ€“Eulerian ADER-MOOD finite volume schemes for multidimensional hyperbolic conservation laws. Journal of Computational Physics, 2015, 292, 56-87.	1.9	51
70	High Order ADER Schemes for Continuum Mechanics. Frontiers in Physics, 2020, 8, .	1.0	47
71	Spaceâ€“time adaptive ADER-DG schemes for dissipative flows: Compressible Navierâ€“Stokes and resistive MHD equations. Computer Physics Communications, 2017, 220, 297-318.	3.0	45
72	A high order special relativistic hydrodynamic and magnetohydrodynamic code with spaceâ€“time adaptive mesh refinement. Computer Physics Communications, 2015, 188, 110-127.	3.0	44

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73	A staggered semi-implicit discontinuous Galerkin method for the two dimensional incompressible Navierâ€“Stokes equations. Applied Mathematics and Computation, 2014, 248, 70-92.	1.4	43
74	A conservative, weakly nonlinear semi-implicit finite volume scheme for the compressible Navier‹mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si11.gif" overflow="scroll"›‹mml:mo›â^'‹/mml:mo›‹/mml:math›Stokes equations with general equation of state. Applied Mathematics and Computation, 2016, 272, 479-497.	1.4	43
75	Well-balanced Arbitrary-Lagrangian-Eulerian finite volume schemes on moving nonconforming meshes for the Euler equations of gas dynamics with gravity. Monthly Notices of the Royal Astronomical Society, 2018, 477, 2251-2275.	1.6	41
76	A divergenceâ€free semiâ€implicit finite volume scheme for ideal, viscous, and resistive magnetohydrodynamics. International Journal for Numerical Methods in Fluids, 2019, 89, 16-42.	0.9	41
77	A staggered spaceâ€“time discontinuous Galerkin method for the incompressible Navierâ€“Stokes equations on two-dimensional triangular meshes. Computers and Fluids, 2015, 119, 235-249.	1.3	40
78	Efficient high order accurate staggered semi-implicit discontinuous Galerkin methods for natural convection problems. Computers and Fluids, 2020, 198, 104399.	1.3	40
79	ExaHyPE: An engine for parallel dynamically adaptive simulations of wave problems. Computer Physics Communications, 2020, 254, 107251.	3.0	40
80	Efficient Implementation of ADER Discontinuous Galerkin Schemes for a Scalable Hyperbolic PDE Engine. Axioms, 2018, 7, 63.	0.9	39
81	A semiâ€implicit scheme for 3D free surface flows with highâ€order velocity reconstruction on unstructured Voronoi meshes. International Journal for Numerical Methods in Fluids, 2013, 72, 607-631.	0.9	38
82	Arbitrary High-Order Discontinuous Galerkin Schemes for the Magnetohydrodynamic Equations. Journal of Scientific Computing, 2007, 30, 441-464.	1.1	37
83	Spectral semi-implicit and spaceâ€“time discontinuous Galerkin methods for the incompressible Navierâ€“Stokes equations on staggered Cartesian grids. Applied Numerical Mathematics, 2016, 110, 41-74.	1.2	37
84	Arbitrary-Lagrangianâ€“Eulerian ADERâ€“WENO finite volume schemes with time-accurate local time stepping for hyperbolic conservation laws. Computer Methods in Applied Mechanics and Engineering, 2014, 280, 57-83.	3.4	36
85	Numerical methods for hydraulic transients in visco-elastic pipes. Journal of Fluids and Structures, 2018, 81, 230-254.	1.5	36
86	A staggered semi-implicit hybrid FV/FE projection method for weakly compressible flows. Journal of Computational Physics, 2020, 421, 109743.	1.9	36
87	Semiâ€implicit numerical modeling of axially symmetric flows in compliant arterial systems. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 257-272.	1.0	35
88	On Arbitrary-Lagrangian-Eulerian One-Step WENO Schemes for Stiff Hyperbolic Balance Laws. Communications in Computational Physics, 2013, 14, 301-327.	0.7	34
89	Conformal and covariant Z4 formulation of the Einstein equations: Strongly hyperbolic first-order reduction and solution with discontinuous Galerkin schemes. Physical Review D, 2018, 97, .	1.6	34
90	A simple two-phase method for the simulation of complex free surface flows. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1204-1219.	3.4	32

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91	A diffuse interface method for complex three-dimensional free surface flows. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 47-64.	3.4	32
92	Semi-implicit discontinuous Galerkin methods for the incompressible Navierâ€“Stokes equations on adaptive staggered Cartesian grids. Computer Methods in Applied Mechanics and Engineering, 2017, 324, 170-203.	3.4	32
93	Direct Arbitrary-Lagrangian-Eulerian finite volume schemes on moving nonconforming unstructured meshes. Computers and Fluids, 2017, 159, 254-275.	1.3	32
94	A structure-preserving staggered semi-implicit finite volume scheme for continuum mechanics. Journal of Computational Physics, 2021, 424, 109866.	1.9	32
95	On High Order ADER Discontinuous Galerkin Schemes for First Order Hyperbolic Reformulations of Nonlinear Dispersive Systems. Journal of Scientific Computing, 2021, 87, 1.	1.1	31
96	Efficient conservative ADER schemes based on WENO reconstruction and space-time predictor in primitive variables. Computational Astrophysics and Cosmology, 2016, 3, 1.	22.7	30
97	An efficient hyperbolic relaxation system for dispersive non-hydrostatic water waves and its solution with high order discontinuous Galerkin schemes. Journal of Computational Physics, 2019, 394, 385-416.	1.9	30
98	Theoretical and numerical comparison of hyperelastic and hypoelastic formulations for Eulerian non-linear elastoplasticity. Journal of Computational Physics, 2019, 387, 481-521.	1.9	30
99	A simple diffuse interface approach for compressible flows around moving solids of arbitrary shape based on a reduced Baerâ€“Nunziato model. Computers and Fluids, 2020, 204, 104536.	1.3	30
100	Arbitrary high order discontinuous Galerkin schemes. , 2005, , 295-333.		29
101	An efficient semi-implicit finite volume method for axially symmetric compressible flows in compliant tubes. Applied Numerical Mathematics, 2015, 89, 24-44.	1.2	28
102	Cell centered direct Arbitrary-Lagrangian-Eulerian ADER-WENO finite volume schemes for nonlinear hyperelasticity. Computers and Fluids, 2016, 134-135, 111-129.	1.3	28
103	On GLM curl cleaning for a first order reduction of the CCZ4 formulation of the Einstein field equations. Journal of Computational Physics, 2020, 404, 109088.	1.9	28
104	Arbitrary high order central non-oscillatory schemes on mixed-element unstructured meshes. Computers and Fluids, 2021, 225, 104961.	1.3	28
105	A two-dimensional Riemann solver with self-similar sub-structure â€“ Alternative formulation based on least squares projection. Journal of Computational Physics, 2016, 304, 138-161.	1.9	26
106	On Thermodynamically Compatible Finite Volume Methods and Path-Conservative ADER Discontinuous Galerkin Schemes for Turbulent Shallow Water Flows. Journal of Scientific Computing, 2021, 88, 1.	1.1	26
107	Central WENO Subcell Finite Volume Limiters for ADER Discontinuous Galerkin Schemes on Fixed and Moving Unstructured Meshes. Communications in Computational Physics, 2019, 25, .	0.7	26
108	High order cell-centered Lagrangian-type finite volume schemes with time-accurate local time stepping on unstructured triangular meshes. Journal of Computational Physics, 2015, 291, 120-150.	1.9	25

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109	Heterogeneous Domain Decomposition for Computational Aeroacoustics. AIAA Journal, 2006, 44, 2231-2250.	1.5	24
110	High order accurate direct Arbitrary-Lagrangian-Eulerian ADER-WENO finite volume schemes on moving curvilinear unstructured meshes. Computers and Fluids, 2016, 136, 48-66.	1.3	24
111	The role of 3D-hydraulics in habitat modelling of hydropeaking events. Science of the Total Environment, 2017, 575, 219-230.	3.9	24
112	A well balanced diffuse interface method for complex nonhydrostatic free surface flows. Computers and Fluids, 2018, 175, 180-198.	1.3	24
113	A novel numerical method of highâ€order accuracy for flow in unsaturated porous media. International Journal for Numerical Methods in Engineering, 2012, 89, 227-240.	1.5	23
114	A second-order cell-centered Lagrangian ADER-MOOD finite volume scheme on multidimensional unstructured meshes for hydrodynamics. Journal of Computational Physics, 2018, 358, 103-129.	1.9	23
115	ADER discontinuous Galerkin schemes for general-relativistic ideal magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	23
116	Continuum mechanics with torsion. Continuum Mechanics and Thermodynamics, 2019, 31, 1517-1541.	1.4	23
117	High order ADER schemes and GLM curl cleaning for a first order hyperbolic formulation of compressible flow with surface tension. Journal of Computational Physics, 2021, 426, 109898.	1.9	23
118	A space-time discontinuous Galerkin method for Boussinesq-type equations. Applied Mathematics and Computation, 2016, 272, 336-346.	1.4	22
119	A hyperbolic reformulation of the Serre-Green-Naghdi model for general bottom topographies. Computers and Fluids, 2020, 212, 104716.	1.3	21
120	A family of HLL-type solvers for the generalized Riemann problem. Computers and Fluids, 2018, 169, 201-212.	1.3	20
121	Space-time adaptive ADER discontinuous Galerkin schemes for nonlinear hyperelasticity with material failure. Journal of Computational Physics, 2020, 422, 109758.	1.9	20
122	An alternative SPH formulation: ADER-WENO-SPH. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113871.	3.4	20
123	Smooth Particle Hydrodynamics with nonlinear Moving-Least-Squares WENO reconstruction to model anisotropic dispersion in porous media. Advances in Water Resources, 2015, 80, 43-59.	1.7	19
124	A Novel Solver for the Generalized Riemann Problem Based on a Simplified LeFlochâ€“Raviart Expansion and a Local Spaceâ€“Time Discontinuous Galerkin Formulation. Journal of Scientific Computing, 2016, 69, 805-840.	1.1	19
125	Arbitrary high order accurate spaceâ€“time discontinuous Galerkin finite element schemes on staggered unstructured meshes for linear elasticity. Journal of Computational Physics, 2018, 366, 386-414.	1.9	19
126	A simple diffuse interface approach on adaptive Cartesian grids for the linear elastic wave equations with complex topography. Journal of Computational Physics, 2019, 386, 158-189.	1.9	19

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127	An efficient semiâ€implicit method for threeâ€dimensional nonâ€hydrostatic flows in compliant arterial vessels. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1170-1198.	1.0	18
128	A new continuum model for general relativistic viscous heat-conducting media. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190175.	1.6	18
129	A unified first-order hyperbolic model for nonlinear dynamic rupture processes in diffuse fracture zones. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200130.	1.6	18
130	A path-conservative Osher-type scheme for axially symmetric compressible flows in flexible visco-elastic tubes. Applied Numerical Mathematics, 2016, 105, 47-63.	1.2	17
131	ADER-DG with a-posteriori finite-volume limiting to simulate tsunamis in a parallel adaptive mesh refinement framework. Computers and Fluids, 2018, 173, 299-306.	1.3	17
132	A Simple but Efficient Concept of Blended Teaching of Mathematics for Engineering Students during the COVID-19 Pandemic. Education Sciences, 2021, 11, 56.	1.4	17
133	A semi-implicit hybrid finite volume/finite element scheme for all Mach number flows on staggered unstructured meshes. Applied Mathematics and Computation, 2021, 402, 126117.	1.4	17
134	Modeling wavefields in saturated elastic porous media based on thermodynamically compatible system theory for two-phase solid-fluid mixtures. Computers and Fluids, 2020, 206, 104587.	1.3	17
135	On Thermodynamically Compatible Finite Volume Schemes for Continuum Mechanics. SIAM Journal of Scientific Computing, 2022, 44, A1723-A1751.	1.3	17
136	On the use of tabulated equations of state for multi-phase simulations in the homogeneous equilibrium limit. Shock Waves, 2019, 29, 769-793.	1.0	16
137	A posteriori sub-cell finite volume limiting of staggered semi-implicit discontinuous Galerkin schemes for the shallow water equations. Applied Numerical Mathematics, 2019, 135, 443-480.	1.2	16
138	A conservative finite volume scheme with time-accurate local time stepping for scalar transport on unstructured grids. Advances in Water Resources, 2015, 86, 217-230.	1.7	15
139	An Efficient Quadrature-Free Formulation for High Order Arbitrary-Lagrangianâ€“Eulerian ADER-WENO Finite Volume Schemes on Unstructured Meshes. Journal of Scientific Computing, 2016, 66, 240-274.	1.1	15
140	A well-balanced path conservative SPH scheme for nonconservative hyperbolic systems with applications to shallow water and multi-phase flows. Computers and Fluids, 2017, 154, 102-122.	1.3	15
141	An alternative smooth particle hydrodynamics formulation to simulate chemotaxis in porous media. Journal of Mathematical Biology, 2017, 74, 1037-1058.	0.8	15
142	Staggered discontinuous Galerkin methods for the incompressible Navierâ€“Stokes equations: Spectral analysis and computational results. Numerical Linear Algebra With Applications, 2018, 25, e2151.	0.9	15
143	Simulation of non-Newtonian viscoplastic flows with a unified first order hyperbolic model and a structure-preserving semi-implicitÂscheme. Computers and Fluids, 2021, 224, 104963.	1.3	15
144	Accurate Calculation of Fault-Rupture Models Using the High-Order Discontinuous Galerkin Method on Tetrahedral Meshes. Bulletin of the Seismological Society of America, 2007, 97, 1570-1586.	1.1	14

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145	A staggered semi-implicit hybrid finite volume / finite element scheme for the shallow water equations at all Froude numbers. Applied Numerical Mathematics, 2022, 175, 108-132.	1.2	14
146	A Posteriori Subcell Finite Volume Limiter for General $$P_NP_M$$ Schemes: Applications from Gasdynamics to Relativistic Magnetohydrodynamics. Journal of Scientific Computing, 2021, 86, 1.	1.1	13
147	Arbitrary high order finite volume schemes for linear wave propagation. , 2006, , 129-144.		12
148	High resolution methods for scalar transport problems in compliant systems of arteries. Applied Numerical Mathematics, 2013, 74, 62-82.	1.2	11
149	A path-conservative finite volume scheme for compressible multi-phase flows with surface tension. Applied Mathematics and Computation, 2015, 271, 959-978.	1.4	11
150	Semi-implicit staggered discontinuous Galerkin schemes for axially symmetric viscous compressible flows in elastic tubes. Computers and Fluids, 2018, 167, 166-179.	1.3	11
151	A Massively Parallel Hybrid Finite Volume/Finite Element Scheme for Computational Fluid Dynamics. Mathematics, 2021, 9, 2316.	1.1	11
152	Staggered Semi-Implicit Hybrid Finite Volume/Finite Element Schemes for Turbulent and Non-Newtonian Flows. Mathematics, 2021, 9, 2972.	1.1	11
153	Studies on the energy and deep memory behaviour of a cache-oblivious, task-based hyperbolic PDE solver. International Journal of High Performance Computing Applications, 2019, 33, 973-986.	2.4	10
154	Calculation of low Mach number acoustics: a comparison of MPV, EIF and linearized Euler equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2005, 39, 561-576.	0.8	9
155	On Source Terms and Boundary Conditions Using Arbitrary High Order Discontinuous Galerkin Schemes. International Journal of Applied Mathematics and Computer Science, 2007, 17, 297-310.	1.5	7
156	A Unified Hyperbolic Formulation for Viscous Fluids and Elastoplastic Solids. Springer Proceedings in Mathematics and Statistics, 2018, , 451-463.	0.1	7
157	Seismic wave field modelling using high performance computing. , 2008, , .		6
158	A Well Balanced Finite Volume Scheme for General Relativity. SIAM Journal of Scientific Computing, 2021, 43, B1226-B1251.	1.3	6
159	CAA Using Domain Decomposition and High Order Methods on Structured and Unstructured Meshes. , 2004, , .		5
160	Heterogeneous Domain Decomposition for CAA. , 2005, , .		5
161	A comparison of explicit and semiâ€implicit finite volume schemes for viscous compressible flows in elastic pipes in fast transient regime. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2017, 97, 1358-1380.	0.9	5
162	A mass and momentumâ€conservative semiâ€implicit finite volume scheme for complex nonâ€hydrostatic free surface flows. International Journal for Numerical Methods in Fluids, 2021, 93, 2946-2967.	0.9	5

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163	Curl Constraint-Preserving Reconstruction and the Guidance it Gives for Mimetic Scheme Design. Communications on Applied Mathematics and Computation, 2023, 5, 235-294.	0.7	5
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