Milan Kucharik

List of Publications by Year
in descending order

28 papers	591 citations	933447 10 h-index	642732 23 g-index
28 all docs	28 docs citations	28 times ranked	291 citing authors

#	Article	IF	Citations
1	High-order curvilinear finite element magneto-hydrodynamics I: A conservative Lagrangian scheme. Journal of Computational Physics, 2022, 464, 111158.	3.8	4
2	An interface-aware sub-scale dynamics multi-material cell model for solids with void closure and opening at all speeds. Computers and Fluids, 2020, 208, 104578.	2.5	4
3	High-accurate and robust conservative remapping combining polynomial and hyperbolic tangent reconstructions. Computers and Fluids, 2020, 208, 104614.	2.5	1
4	Innovative education and training in high power laser plasmas (PowerLaPs) for plasma physics, high power laser matter interactions and high energy density physics: experimental diagnostics and simulations. High Power Laser Science and Engineering, 2020, 8, .	4.6	6
5	High-current stream of energetic α particles from laser-driven proton-boron fusion. Physical Review E, 2020, 101, 013204.	2.1	59
6	Second-invariant-preserving Remap of the 2D deviatoric stress tensor in ALE methods. Computers and Mathematics With Applications, 2019, 78, 654-669.	2.7	1
7	Innovative Education and Training in high power laser plasmas (PowerLaPs) for plasma physics, high power laser–matter interactions and high energy density physics – theory and experiments. High Power Laser Science and Engineering, 2019, 7, .	4.6	7
8	Wave-based laser absorption method for high-order transport–hydrodynamic codes. Advances in Computational Mathematics, 2019, 45, 1953-1976.	1.6	3
9	The effect of pre-plasma formed under the nonlocal transport conditions on the interaction of the ultrahigh intensity laser with a solid target. , 2019, , .		1
10	A multi-scale residual-based anti-hourglass control for compatible staggered Lagrangian hydrodynamics. Journal of Computational Physics, 2018, 354, 1-25.	3.8	3
11	Bound-Preserving Reconstruction of Tensor Quantities for Remap in ALE Fluid Dynamics. Springer Proceedings in Mathematics and Statistics, 2018, , 145-157.	0.2	1
12	Combined swept region and intersection–based single–material remapping method. International Journal for Numerical Methods in Fluids, 2017, 85, 363-382.	1.6	5
13	Bound-preserving remapping of staggered quantities for multi-material ALE methods. AIP Conference Proceedings, 2017, , .	0.4	0
14	Local Error Analysis and Comparison of the Swept- and Intersection-Based Remapping Methods. Communications in Computational Physics, 2017, 21, 526-558.	1.7	8
15	Conservative multi-material remap for staggered multi-material Arbitrary Lagrangian–Eulerian methods. Journal of Computational Physics, 2014, 258, 268-304.	3.8	57
16	Enhancement of Lagrangian slide lines as a combined force and velocity boundary condition. Computers and Fluids, 2013, 83, 3-14.	2.5	12
17	One-step hybrid remapping algorithm for multi-material arbitrary Lagrangian–Eulerian methods. Journal of Computational Physics, 2012, 231, 2851-2864.	3.8	47
18	Flux-Based Approach for Conservative Remap of Multi-Material Quantities in 2D Arbitrary Lagrangian-Eulerian Simulations. Springer Proceedings in Mathematics, 2011, , 623-631.	0.5	5

#	ARTICLE	IF	CITATIONS
19	Hybrid remap for multi-material ALE. Computers and Fluids, 2011, 46, 293-297.	2.5	39
20	Two-step hybrid conservative remapping for multimaterial arbitrary Lagrangian–Eulerian methods. Journal of Computational Physics, 2011, 230, 6664-6687.	3.8	67
21	A comparative study of interface reconstruction methods for multi-material ALE simulations. Journal of Computational Physics, 2010, 229, 2432-2452.	3.8	93
22	Using the feasible set method for rezoning in ALE. Procedia Computer Science, 2010, 1, 1885-1892.	2.0	10
23	Multidimensional first and second order symmetric Strang splitting for hyperbolic systems. Applied Numerical Mathematics, 2010, 60, 74-82.	2.1	0
24	Reduced-dissipation remapping of velocity in staggered arbitrary Lagrangian–Eulerian methods. Journal of Computational and Applied Mathematics, 2010, 233, 3148-3156.	2.0	9
25	An efficient linearity and bound preserving conservative interpolation (remapping) on polyhedral meshes. Computers and Fluids, 2007, 36, 224-237.	2.5	44
26	Optimally-stable second-order accurate difference schemes for non-linear conservation laws in 3D. Applied Numerical Mathematics, 2006, 56, 589-607.	2.1	8
27	Efficient Algorithm for Local-Bound-Preserving Remapping in ALE Methods. , 2004, , 358-367.		0
28	An efficient linearity-and-bound-preserving remapping method. Journal of Computational Physics, 2003, 188, 462-471.	3.8	97