# 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 | An efficient linearity-and-bound-preserving remapping method. Journal of Computational Physics, 2003, 188, 462-471. | 3.8 | 97 |
| 2 | A comparative study of interface reconstruction methods for multi-material ALE simulations. Journal of Computational Physics, 2010, 229, 2432-2452. | 3.8 | 93 |
| 3 | Two-step hybrid conservative remapping for multimaterial arbitrary Lagrangianâ€"Eulerian methods. Journal of Computational Physics, 2011, 230, 6664-6687. | 3.8 | 67 |
| 4 | High-current stream of energetic Î± particles from laser-driven proton-boron fusion. Physical Review E, 2020, 101, 013204. | 2.1 | 59 |
| 5 | Conservative multi-material remap for staggered multi-material Arbitrary Lagrangianâ€"Eulerian methods. Journal of Computational Physics, 2014, 258, 268-304. | 3.8 | 57 |
| 6 | One-step hybrid remapping algorithm for multi-material arbitrary Lagrangianâ€"Eulerian methods. Journal of Computational Physics, 2012, 231, 2851-2864. | 3.8 | 47 |
| 7 | An efficient linearity and bound preserving conservative interpolation (remapping) on polyhedral meshes. Computers and Fluids, 2007, 36, 224-237. | 2.5 | 44 |
| 8 | Hybrid remap for multi-material ALE. Computers and Fluids, 2011, 46, 293-297. | 2.5 | 39 |
| 9 | Enhancement of Lagrangian slide lines as a combined force and velocity boundary condition. Computers and Fluids, 2013, 83, 3-14. | 2.5 | 12 |
| 10 | Using the feasible set method for rezoning in ALE. Procedia Computer Science, 2010, 1, 1885-1892. | 2.0 | 10 |
| 11 | Reduced-dissipation remapping of velocity in staggered arbitrary Lagrangianâ€"Eulerian methods. Journal of Computational and Applied Mathematics, 2010, 233, 3148-3156. | 2.0 | 9 |
| 12 | Optimally-stable second-order accurate difference schemes for non-linear conservation laws in 3D. Applied Numerical Mathematics, 2006, 56, 589-607. | 2.1 | 8 |
| 13 | Local Error Analysis and Comparison of the Swept- and Intersection-Based Remapping Methods. Communications in Computational Physics, 2017, 21, 526-558. | 1.7 | 8 |
| 14 | Innovative Education and Training in high power laser plasmas (PowerLaPs) for plasma physics, high power laserâ€"matter interactions and high energy density physics â€" theory and experiments. High Power Laser Science and Engineering, 2019, 7, . | 4.6 | 7 |
| 15 | 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 |
| 16 | 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 |
| 17 | Combined swept region and intersectionâ€"based singleâ€"material remapping method. International Journal for Numerical Methods in Fluids, 2017, 85, 363-382. | 1.6 | 5 |
| 18 | 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 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | High-order curvilinear finite element magneto-hydrodynamics I: A conservative Lagrangian scheme. Journal of Computational Physics, 2022, 464, 111158. | 3.8 | 4 |
| 20 | A multi-scale residual-based anti-hourglass control for compatible staggered Lagrangian hydrodynamics. Journal of Computational Physics, 2018, 354, 1-25. | 3.8 | 3 |
| 21 | Wave-based laser absorption method for high-order transportâ€“hydrodynamic codes. Advances in Computational Mathematics, 2019, 45, 1953-1976. | 1.6 | 3 |
| 22 | Bound-Preserving Reconstruction of Tensor Quantities for Remap in ALE Fluid Dynamics. Springer Proceedings in Mathematics and Statistics, 2018, , 145-157. | 0.2 | 1 |
| 23 | 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 |
| 24 | High-accurate and robust conservative remapping combining polynomial and hyperbolic tangent reconstructions. Computers and Fluids, 2020, 208, 104614. | 2.5 | 1 |
| 25 | 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 |
| 26 | Multidimensional first and second order symmetric Strang splitting for hyperbolic systems. Applied Numerical Mathematics, 2010, 60, 74-82. | 2.1 | 0 |
| 27 | Bound-preserving remapping of staggered quantities for multi-material ALE methods. AIP Conference Proceedings, 2017, , . | 0.4 | 0 |
| 28 | Efficient Algorithm for Local-Bound-Preserving Remapping in ALE Methods. , 2004, , 358-367. | | 0 |