

Seznam publikací

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Publikace k tématu disertační práce:

Arbitrary Tools for Arbitrary Lagrangian-Eulerian Simulations
Pokročilé metody pro Lagrangeovsko-Eulerovské simulace

Publikace v impaktovaných časopisech:

- M. Klíma, M. Kucharik, and M. Shashkov. Local error analysis and comparison of the swept- and intersection-based remapping methods. *Communications in Computational Physics*, 21(2):526–558, 2017.

Citováno v:

- D.E. Burton, N.R. Morgan, M.R.J. Charest, M.A. Kenamond, J. Fung. Compatible, energy conserving, bounds preserving remap of hydrodynamic fields for an extended ALE scheme. *Journal of Computational Physics*, 355:492-533, 2018.
- V. P. Chiravalle, A. Barlow, N. R. Morgan. 3D Cell-centered hydrodynamics with subscale closure model and multi-material remap. *Computers & Fluids*, 207:104592, 2020.
- M. Klíma, M. Kucharik, and M. Shashkov. Combined swept region and intersection-based single-material remapping method. *International Journal on Numerical Methods in Fluids*, 85(6):363–382, 2017.
- A. Barlow, M. Klíma, and M. Shashkov. Constrained optimization framework for interface-aware sub-scale dynamics models for voids closure in Lagrangian hydrodynamics. *Journal of Computational Physics*, 371:914–944, 2018.

Citováno v:


- E. Kikinon, M. Shashkov, R. Garimella. Establishing mesh topology in multi-material cells: Enabling technology for robust and accurate multi-material simulations. *Computers & Fluids*, 172:251-263, 2018.
- C. Zhang, I. Menshov. Using the composite Riemann problem solution for capturing interfaces in compressible two-phase flows. *Applied Mathematics and Computation*, 363:124610, 2019.
- V. P. Chiravalle, A. Barlow, N. R. Morgan. 3D Cell-centered hydrodynamics with subscale closure model and multi-material remap. *Computers & Fluids*, 207:104592, 2020.

- C. Ghnatios, P. Simacek, F. Chinesta, S. Advani. A non-local void dynamics modeling and simulation using the Proper Generalized Decomposition. *International Journal of Material Forming*, 13(4):533-546, 2020.
- S. Zaleski, F. Xiao. Special issue: Numerical methods and modeling of multi-phase flows (Editorial). *Journal of Computational Physics*, 402:108902, 2020.
- M. Klima, M. Kucharik, J. Velechovsky, and M. Shashkov. Second-invariant-preserving remap of the 2D deviatoric stress tensor in ALE methods. *Computers & Mathematics with Applications*, 78(2):654–669, 2019.
- M. Klima, A. Barlow, M. Kucharik, and M. Shashkov. An interface-aware sub-scale dynamics multi-material cell model for solids with void closure and opening at all speeds. *Computers & Fluids*, 208:104578, 2020.

Publikace ve sbornících konferencí:

- M. Klima, M. Kucharik and M. Shashkov: Combination of Intersection- and Swept-Based Methods for Single-Material Remap, *Proceedings of 6th European Congress on Computational Fluid Dynamics*, pp. 5977-5988, 2014.
- M. Klima, M. Kucharik, M. Shashkov, and J. Velechovsky. Bound-preserving reconstruction of tensor quantities for remap in ALE fluid dynamics. In *Springer Proceedings in Mathematics and Statistics*, 2018. *Proceedings of HYP 2016, XVI International Conference on Hyperbolic Problems - Theory, Numerics, Applications*, Aachen, Germany.

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