

Seznam publikovaných i nepublikovaných prací

Články s impact factorem

- [1] Vadym Aizinger, Dmitri Kuzmin, Lukas Korous, Scale separation in fast hierarchical solvers for discontinuous Galerkin methods, September 2015, *Applied Mathematics and Computation* 266:838-849, DOI: 10.1016/j.amc.2015.05.047
- [2] Lukas Korous, Pavel Solin, An adaptive hp-DG method with dynamically-changing meshes for non-stationary compressible Euler equations, May 2012, *COMPUTING*, 95,1,425-444, DOI: 10.1007/s00607-012-0257-1
- [3] Pavel Solin, Lukas Korous, Pavel Kus, Hermes2D, a C++ library for rapid development of adaptive hp-FEM and hp-DG solvers, November 2014, *Journal of Computational and Applied Mathematics* 270:152-165, DOI: 10.1016/j.cam.2014.02.007
- [4] Pavel Solin, Ondrej Certik, Lukas Korous, Three anisotropic benchmark problems for adaptive finite element methods, March 2013, *Applied Mathematics and Computation* 219(13), DOI: 10.1016/j.amc.2010.12.080
- [5] Zhonghua Ma, Lukas Korous, Erick Santiago, Solving a suite of NIST benchmark problems for adaptive FEM with the Hermes library, December 2012, *Journal of Computational and Applied Mathematics* 236(18):4846-4861, DOI: 10.1016/j.cam.2012.02.004
- [6] Pavel Solin, Lukas Korous, Space-time adaptive hp-FEM for problems with traveling sharp fronts, May 2012, *Computing* 95(1), DOI: 10.1007/s00607-012-0243-7
- [7] Pavel Solin, Lukas Korous, Adaptive higher-order finite element methods for transient PDE problems based on embedded higher-order implicit Runge-Kutta methods, February 2012, *Journal of Computational Physics* 231(4):1635-1649, DOI: 10.1016/j.jcp.2011.10.023

Články z konference

- [1] Lukas Korous, Pavel Karban, Distributed Implicit Discontinuous Galerkin MHD Solver, COMPUMAG 2017, Daejeon, Korea
- [2] Ivo Dolezel, Lukas Korous, Pavel Karban, Frantisek Mach, Higher-Order Eggshell Method for Computation of Forces Acting on Ferromagnetic Bodies, January 2014, Conference: 9th IET International Conference on Computation in Electromagnetics (CEM 2014), DOI: 10.1049/cp.2014.0188
- [3] Korous Lukas, Adaptive hp-DG Method for Nonstationary Compressible Euler Equations, *Elektrotechnika a informatika* 2012. Part 1., *Elektrotechnika*, 53-56

Software

- [1] Lukas Korous, Pavel Solin, Milan Hanus, Jakub Cerveny, The library for physical fields modelling using hp-adaptive finite element method Hermes2D
- [2] Lukas Korous, Pavel Solin, Pavel Kus, David Andrs, Library for physical fields modelling in three-dimensional space using hp-adaptive FEM Hermes3D

Seznam vystoupení na vědeckých setkáních

- FEMTEC, USA, 2011
- SCA, University of Nevada in Las Vegas, USA, 2012
- FEMTEC, USA 2013
- CMMSE, Spain, 2013
- ESCO, Pilsen, 2014
- ESCO, Pilsen, 2018

Aktivity z průběhu studia

- účast na konferencích
- práce na člancích
- tvorba software (Hermes2D, Hermes3D, Agros2D, MHDeal)
- člen organizačního týmu na konferencích FEMTEC 2013, ESCO 2014, ESCO 2018

21. 9. 2018

