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## EMPLOYMENT

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- Institute of Mathematics, Czech Academy of Sciences**, postdoc position from January 2020  
**Inria Paris**, postdoc 2017 – 2019  
research group SERENA led by Martin Vohralík July – December 2019  
research group ALPINES led by Laura Grigori March 2017 – June 2019  
**Institute of Computer Science**, Czech Academy of Sciences 2011 – 2017  
student position in Department of Computational Methods

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## EDUCATION

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- Faculty of Mathematics and Physics, Charles University, Prague**  
advisor: professor Zdeněk Strakoš
- Ph.D.** in Scientific Computing 2017  
thesis: *Algebraic error in matrix computations in the context of numerical solution of partial differential equations*
- Master** in Numerical and Computational Mathematics (summa cum laude) 2011  
*Estimation of the algebraic error and stopping criteria in numerical solution of partial differential equations*
- Bachelor** in General Mathematics (summa cum laude) 2009  
*Estimation of the energy and Euclidean norms of the error in the conjugate gradient method*
- Université Pierre et Marie Curie, Paris** January – May 2013  
ERASMUS internship, supervised by professor Martin Vohralík
- Gene Golub SIAM Summer School 2013**, Fudan University, Shanghai July 2013  
topic: Matrix Functions and Matrix Equations, duration 3 weeks

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## PARTICIPATION ON GRANTS AND PROJECTS

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- GATIPOR**, *Guaranteed fully adaptive algorithms with tailored inexact solvers for complex porous media flows* from 2019  
starting research position; ERC Consolidator Grant, PI: prof. Martin Vohralík
- B3DCMB**, *Big Bang from Big Data of the Cosmic Microwave Background* from 2018  
member of the project team; French National Research Agency project, coordinator and scientific director: prof. Radek Stompor
- NLAFET**, *Parallel Numerical Linear Algebra for Extreme Scale Systems* 2017 – 2019  
postdoc; Horizon 2020 project, coordinator and scientific director: prof. Bo Kågström
- ERC-CZ project LL1202** 2012 – 2017  
*MORE: MOdelling REvisited + MOdel REDuction*  
member of the project team; principal investigator: prof. Josef Málek
- GAČR project 13-06684S** 2013 – 2017  
*Iterative Methods in Computational Mathematics: Analysis, Preconditioning, and Applications*  
member of the project team; principal investigator: prof. Miroslav Tůma
- GAUK student research grant 695612** 2012 – 2014  
principal investigator (team of 3 students)
- GAAV grant IAA100300802** 2009 – 2012  
*Theory of Krylov subspace methods and its relationship to other mathematical disciplines*  
member of the project team; principal investigator: prof. Zdeněk Strakoš

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## TEACHING EXPERIENCE

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Fundamentals of Numerical Mathematics – exercise (0+2) winter semesters 2014/15, 15/16  
Charles University in Prague, NMNM201

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## PROFESSIONAL ACTIVITIES

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Charles University Chapter of SIAM president July 2012 – June 2015  
Programming in MATLAB workshop organizer and lecturer of one-week intensive courses 2012, 2014, 2016

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## AWARDS

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SIAM Student Chapter Certificate of Recognition 2014  
awarded by the Society for Industrial and Applied Mathematics (SIAM)  
prof. Babuška Prize, awarded by the Czech Society for Mechanics 2012, 2017  
2nd place for diploma thesis, 3rd place for dissertation thesis

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## PUBLICATIONS

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A. Anciaux-Sedrakian, L. Grigori, Z. Jorti, J. Papež, and S. Yousef: *Adaptive solution of linear systems of equations based on a posteriori error estimators*, Numer. Algorithms, online July 2019.  
J. Papež, L. Grigori, and R. Stompor: *Solving linear equations with messenger-field and conjugate gradient techniques: An application to CMB data analysis*, Astronomy and Astrophysics, 620, 2018, A59.  
J. Papež and Z. Strakoš: *On a residual-based a posteriori error estimator for the total error*, IMA J. Numer. Anal., 38(3), 2018, pp. 1164–1184.  
J. Papež, Z. Strakoš, and M. Vohralík: *Estimating and localizing the algebraic and total errors in numerical PDEs using the flux reconstruction*, Numer. Math., 138(3), 2017, pp. 681–721.  
J. Papež, J. Liesen, and Z. Strakoš: *Distribution of the discretization and algebraic error in numerical solution of partial differential equations*, Linear Algebra Appl., 449, 2014, pp. 89–114.  
A. Miraçi, J. Papež, and M. Vohralík: *A multilevel algebraic error estimator and the corresponding iterative solver with p-robust behavior*, HAL Preprint 02070981, July 2019.  
J. Papež, U. Růde, M. Vohralík, and B. Wohlmuth: *Sharp algebraic and total a posteriori error bounds for hp finite elements via a multilevel approach*, HAL Preprint 01662944, December 2019.  
J. Papež and M. Vohralík: *Inexpensive guaranteed and efficient upper bounds on the algebraic error in finite element discretizations*, HAL Preprint 02422851, December 2019.

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## LANGUAGE SKILLS

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**Czech** native  
**English** fluent  
**French** intermediate

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## OTHER SKILLS

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**MATLAB, Python, C** (basics)