

PERSONAL DETAILS

Date/Place of Birth 27/11/1985 in Lviv, Ukraine
 Citizenship Ukrainian
 Marital status Married, three kids
 Address Sorbonne Université - LIP6
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PROFESSIONAL EXPERIENCE

- 01/09/2019–present **Marie Skłodowska Curie Fellow**, Sorbonne University, Paris, France. MSCA-IF-EF-ST Grant no. 842528 for robust and sustainable numerical solvers
- 01/01/2019–present **HPC Researcher**, Fraunhofer ITWM, Kaiserslautern, Germany. Taskification and communication of industrial codes, as well as collectives in GASPI
- 01/01/2019–30/06/2019 **Guest Researcher**, KTH Royal Institute of Technology, Stockholm, Sweden
- 01/10/2015–31/12/2018 **Researcher/ postdoctoral researcher**, CST/PDC, EECS, KTH Royal Institute of Technology. KTH coordinator, work package leader, and iPIC3D developer on two EU H2020 projects, namely AllScale and INTERTWinE
- 01/10/2013–30/09/2015 **Postdoctoral researcher**, Labex CalsimLab (ICS and LIP6), Sorbonne Universités, UPMC Univ Paris 06, France. Developed the ExBLAS library for reproducible, accurate, and fast BLAS kernels on GPUs and CPU
- 01/10/2012–30/09/2013 **Postdoctoral researcher**, Département Informatique, Institut Mines-Télécom – Télécom SudParis, Évry, France. Led the development of a lightweight trace library, a building block of EZTrace – a performance analysis framework
- May 2017, Nov 2011, Sept 2010 **Visiting Researcher**, Universitat Jaume I, Castellón de la Plana, Spain. Derived schemes to analytically predict both memory-stalls and the execution time of fundamental linear algebra operations
- 01/10/2008–31/01/2009 **Research Assistant**, Department of Numerical Mathematics, Ivan Franko National University of Lviv, Ukraine. Performed theoretical and numerical analysis of iterative difference methods for solving the nonlinear least squares problem
- 01/02/2007–31/01/2009 **Software Engineer**, SoftServe Inc., Lviv, Ukraine. Developed e-commerce web-applications using Java-related technologies
- 01/09/2005–30/06/2007 **Engineer of Computer Equipment Laboratory**, Department of Numerical Mathematics, Ivan Franko National University of Lviv, Ukraine. Worked as system administrator of a Windows-based laboratory

EDUCATION

- 01/02/2009–10/09/2012 **Dr.rer.nat.** (equiv. to Ph.D.) in Computer Science, AICES Graduate School, RWTH Aachen University, Germany. Dissertation: *“Performance modeling and prediction for linear algebra algorithms”*
- 30/01/2011–17/03/2011 **NII International Internship Program**, National Institute of Informatics, Tokyo, Japan. Investigated the efficient usage of private clouds for HPC
- 01/09/2007–30/06/2008 **Master of Science** in Applied Mathematics, Ivan Franko National University of Lviv, Ukraine. Thesis: *“On the method with super-quadratic convergence under the generalized Lipschitz conditions for solving the nonlinear least squares problem”*

- 01/09/2003–30/06/2007 **Bachelor of Science** in Applied Mathematics, Ivan Franko National University of Lviv, Ukraine. Thesis: *“The method with super-quadratic convergence under the Hölder inequality for solving the nonlinear least squares problem”*
- 01/09/2000–31/05/2003 Attended Youth Academy of Science of Ukraine while at school. Thesis: *“The Newton method and its modifications”* (2003)

SOFTWARE

- iPIC3D Task-based version of the Particle-in-Cell method using the AllScale Environment. <http://www.allscale.eu/ipic3d>
- ExBLAS Reproducible, accurate, and fast Basic Linear Algebra Subprograms. Available under the Modified BSD license at <https://exblas.lip6.fr>
- LiTL A scalable binary trace library. Available under the BSD license at <https://fusionforge.int-evry.fr/projects/litl/>
- EZTrace A general framework for analyzing parallel applications. Available under the CeCILL-B license at <http://eztrace.gforge.inria.fr/>

FUNDING AND AWARDS

- 01/09/2019-24/07/2022 EC-funded H2020 Marie Skłodowska Curie Actions IF (196K EUR)
- 01/10-24/12/2018 Travel grant from HPC-Europa3 (4.5K EUR) to visit BSC and UJI, Spain
- 03-07/09/2018 The FRÖ grant from Institut Français (750 EUR) to visit Sorbonne University
- 22/04-11/05/2018 Severo Ochoa Mobility Program Grant (1.4K EUR), BSC, Spain
- 01/10/2014–30/09/2015 Grant for the second year postdoc funding (35K EUR), Paris VI, France
- 30/01-17/03/2011 Scholarship for the NII International Internship Program (3.5K EUR), NII, Japan
- 2009–2012 AICES fellowship to do doctoral studies
- 2008, 2007 Master and Bachelor degrees with honors
- 2005–2008 Scholarship for outstanding achievements in academic performance
- 2003 2nd place at the state level competition among young researchers in Informatics

PROFESSIONAL ACTIVITIES

- REVIEWER
- ACM TOMS; Elsevier ParCo, JPDC, and JCAM
- INVITED TALKS
- MS: Recent Advances in Accurate and Verified Numerical Computations at SIAM CSE19, Feb 25-March 1, 2019, Spokane, USA
 - MS 1.2.C: High performance accurate computing at PMAA18, June 27-29, 2018, Zürich, Switzerland
 - MS66: Reliable Numerical Computations in HPC Environments at SIAM PP 2018, March 7-10, 2018, Tokyo, Japan
 - RAIM 2017: 9èmes Rencontre “Arithmétique de l’Informatique Mathématique”, October 24-26, 2017, Lyon, France
 - MS237: Algorithmic Revolution in Post Moore’s Era: Auto-Tuning and Accuracy Assurance at SIAM CSE 2017, February 27-March 3, 2017, Atlanta, USA
 - MS16: Numerical Reproducibility for High-Performance Computing at SIAM PP 2016, April 12-15, 2016, Paris, France
 - LIP, ÉNS Lyon, December 11th, 2014
 - ICS Matinée Jeunes Chercheurs, Paris 6, November 5th, 2014
 - LRI, Université Paris-Sud, April 1st, 2014

PROGRAM COMMITTEES

- EuroExaScale2020, LSPANC2020, EASC’16, PDCS’14, HPC-UA’13

LANGUAGE SKILLS

Ukrainian (native), English (fluent), Russian (fluent), French (B1), German (B1), Swedish (A1)