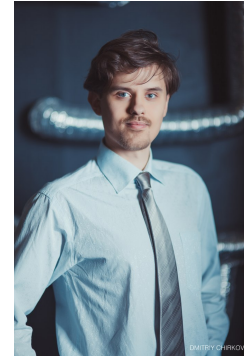


Aleksey BUZMAKOV

avbuzmakov@hse.ru



Born: December 19, 1987 in Perm, Russia (USSR), Russian citizenship

Personal address: 614014, Russia, Perm, ul. Uinskaya 41, kv. 85

Mobile numbers: +7 919 476 9042

Additional Email: abuzmakov@gmail.com

Education

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| 2011 – 2015 | PhD at University of Lorraine, France in Computer Science under direction of Amedeo Napoli and Sergei O. Kuznetsov.
PhD thesis: “ <i>Formal Concept Analysis and Pattern Structures for mining Structured Data</i> ”. |
| 2011 – 2015 | Candidate of Science at NRU Higher School of Economics, Russia in Mathematical modelling, computational methods and software complexes under direction of Sergei O. Kuznetsov.
Candidate of Science thesis: “ <i>Modeling of processes with states of complex nature</i> ”. |
| 2009 – 2011 | MSc at Moscow Institute of Physics And Technology (State University), Russia with Honors (average score 4.88/5) in Applied Mathematics and Physics. Innovation and High Technology department.
Master Graduation Work: “ <i>Estimation of the working quality of the transformation module for recognized documents into the final user format via comparison of visual similarity</i> ”. |
| 2005 – 2009 | BSc at Moscow Institute of Physics And Technology (State University), Russia with Honors (average score 4.76/5) in Applied Mathematics and Physics. Radio Engineering and Cybernetics department.
Bachelor Graduation Work: “ <i>Estimation of the possibility to use GLONASS satellite system as a multitrace radio altimeter</i> ”. |

Most Important Conferences

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| 11/2017 | ICDM 2017: IEEE International Conference on Data Mining series
Presentation on “ <i>Efficient Mining of Subsample-Stable Graph Patterns</i> ” |
| 09/2015 | ECML-PKDD 2015: European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases
Presentation on “ <i>Fast Generation of Best Interval Patterns for Nonmonotonic Constraints</i> ” |
| 07/2015 | 24th International Joint Conference on Artificial Intelligence
Presentation on “ <i>Mining Definitions from RDF Annotations Using Formal Concept Analysis</i> ” |

Publications

- 2018 Mehwish Alam, Aleksey Buzmakov, and Amedeo Napoli. Exploratory knowledge discovery over Web of Data. *Discrete Applied Mathematics*, 249:2–17, nov 2018
- 2017 A Buzmakov, S O Kuznetsov, and A Napoli. Efficient Mining of Subsample-Stable Graph Patterns. In *2017 IEEE International Conference on Data Mining (ICDM)*, pages 757–762, New Orleans, LA, USA, 2017
- 2016 Aleksey Buzmakov and Amedeo Napoli. How Fuzzy {FCA} and Pattern Structures are Connected? In *Proceedings of the 5th International Workshop "What can {FCA} do for Artificial Intelligence"?* co-located with the *European Conference on Artificial Intelligence, FCA4AI@ECAI 2016, The Hague, the Netherlands, August 30, 2016.*, pages 89–96, Hague, Netherlands, 2016
- 2016 Aleksey Buzmakov and Amedeo Napoli. On Scaling of Fuzzy {FCA} to Pattern Structures. In *Proc. 13th International Conference on Concept Lattices and Their Applications (CLA'16)*, pages 85–96, Moscow, 2016
- 2016 My Thao Tang, Aleksey Buzmakov, Yannick Toussaint, and Amedeo Napoli. Building a Domain Knowledge Model based on a Concept Lattice Integrating Expert Constraints. In *Proc. 13th International Conference on Concept Lattices and Their Applications (CLA'16)*, pages 349–362, Moscow, 2016
- 2016 Aleksey Buzmakov, Elias Egho, Nicolas Jay, Sergei O. Kuznetsov, Amedeo Napoli, and Chedy Raïssi. On mining complex sequential data by means of FCA and pattern structures. *International Journal of General Systems*, 45(2):135–159, 2016
- 2015 Aleksey Buzmakov, Sergei O. Kuznetsov, and Amedeo Napoli. Fast Generation of Best Interval Patterns for Nonmonotonic Constraints. In Annalisa Appice, Pedro Pereira Rodrigues, Vítor Santos Costa, João Gama, Alípio Jorge, and Carlos Soares, editors, *Machine Learning and Knowledge Discovery in Databases*, volume 9285 of *LNCS*, pages 157–172. Springer International Publishing, 2015
- 2015 Mehwish Alam, Aleksey Buzmakov, Victor Codocedo, and Amedeo Napoli. Mining Definitions from {RDF} Annotations Using Formal Concept Analysis. In *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, {IJCAI} 2015, Buenos Aires, Argentina, July 25-31, 2015*, pages 823–829, 2015
- 2015 Aleksey Buzmakov, Sergei O. Kuznetsov, and Amedeo Napoli. Revisiting Pattern Structure Projections. In Jaume Baixeries, Christian Sacarea, and Manuel Ojeda-Aciego, editors, *Formal Concept Analysis (ICFCA)*, volume 9113 of *Lecture Notes in Computer Science*, pages 200–215. Springer International Publishing, 2015
- 2015 Artuur Leeuwenberg, Aleksey Buzmakov, Yannick Toussaint, and Amedeo Napoli. Exploring Pattern Structures of Syntactic Trees for Relation Extraction. In *Formal Concept Analysis (ICFCA)*, volume 9113 of *Lecture Notes in Computer Science*, pages 153–168. Springer, 2015
- 2015 Jean-Philippe Métivier, Alban Lepailleur, Aleksey Buzmakov, Guillaume Poezevara, Bruno Crémilleux, Sergei Kuznetsov, Jérémie Le Goff, Amédéo Napoli, Ronan Bureau, and Bertrand Cuissart. Discovering structural alerts for mutagenicity using stable emerging molecular patterns. *Journal of Chemical Information and Modeling*, 55(5):925–940, apr 2015
- 2014 S Kulikova, L Hertz-Pannier, G Dehaene-Lambertz, A Buzmakov, C Poupon, and J Dubois. Multi-parametric evaluation of the white matter maturation. *Brain Structure and Function*, pages 1–16, 2014
- 2014 Aleksey Buzmakov, Sergei O. Kuznetsov, and Amedeo Napoli. On Evaluating Interestingness Measures for Closed Itemsets. In *STAIRS 2014*, volume 264 of *Frontiers in Artificial Intelligence and Applications*, pages 71 – 80. IOS Press, 2014

- 2014 | Aleksey Buzmakov, Sergei O. Kuznetsov, and Amedeo Napoli. Scalable Estimates of Concept Stability. In Christian Sacarea, Cynthia Vera Glodeanu, and Mehdi Kaytoue, editors, *Formal Concept Analysis*, volume 8478 of *LNCS*, pages 161–176. Springer Berlin Heidelberg, 2014
- 2014 | Aleksey Buzmakov, Sergei O. Kuznetsov, and Amedeo Napoli. Is Concept Stability a Measure for Pattern Selection? *Procedia Computer Science*, 31(0):918–927, 2014
- 2013 | Aleksey Buzmakov, Elias Egho, Nicolas Jay, Sergei O. Kuznetsov, Amedeo Napoli, and Chedy Raïssi. On Projections of Sequential Pattern Structures (with an application on care trajectories). In *Proc. 10th International Conference on Concept Lattices and Their Applications*, pages 199–208, La Rochelle, France, 2013
- 2013 | Aleksey Buzmakov, Elias Egho, Nicolas Jay, Sergei O. Kuznetsov, Amedeo Napoli, and Chedy Raïssi. The representation of sequential patterns and their projections within Formal Concept Analysis. In *Workshop Notes for LML (PKDD)*, pages 65–79, 2013
- 2013 | Aleksey Buzmakov, Elias Egho, Nicolas Jay, Sergei O. Kuznetsov, Amedeo Napoli, and Chedy Raïssi. FCA and pattern structures for mining care trajectories. In *Workshop Notes for FCA4AI*, pages 7–14, 2013
- 2013 | Aleksey Buzmakov and Alexey A. Neznanov. Practical Computing with Pattern Structures in FCART Environment. In *Workshop Notes for FCA4AI*, pages 49–52, 2013
- 2012 | Yasmine Asses, Aleksey Buzmakov, Thomas Bourquard, Sergei O. Kuznetsov, Amedeo Napoli, and Others. A Hybrid Classification Approach based on FCA and Emerging Patterns-An application for the classification of biological inhibitors. In *Proceedings of The 9th International Conference on Concept Lattices and Their Applications*, pages 211–222, 2012
- 2012 | Aleksey Buzmakov, Sergei O. Kuznetsov, and Amedeo Napoli. A New Approach to Classification by Means of Jumping Emerging Patterns. In *Workshop Notes for FCA4AI*, pages 15–22, 2012

In Russian

- 2013 | А. В. Бузмаков. Узорные структуры для анализа сложных последовательностей. *Научно-техническая информация. серия 2: информационные процессы и системы*, 10:27–39, 2013

Teaching

- 2016 – 2018 | Machine Learning
- 2016 – 2018 | Data Analysis Technologies
- 2018 | Data Collection and Analysis in Marketing
- 2017 | Introduction to Machine Learning
- 2017 | Research Seminar
- 2014 – 2015 | Java, Object Programming, Data Structures, and Databases
- 2014 | C2i, IT and Internet Certificate (Certificat informatique et internet)

Work Experience

2015 – now	Seniour Research Fellow, NRU Higher School of Economics, Perm, Russia. Developing algorithms for data mining and subgroup discovery under treatment effect.
2011 – 2015	PhD Student, Université de Lorraine, Nancy, France
2014 – 2014	Lecturer, Université de Lorraine, Nancy, France. Givinig lectures on Java and elementary in computer technologies
2009 – 2011	Software Engineer in C++, FineReader Team, ABBYY Software House. Developing programmes for exporting the results of OCR FineReader to PDF and Microsoft Word. <i>Projects:</i> PDFTransformer 2, FineReader 10, FineReader 11 (OCR Systems)
2008 – 2009	Junior Engineer, International Corporate Company “Vimpel”. Supporting development of satelite navigation application.

Interest and Skills

Science	Machine Learning, Subgroup discovery, Complex Data, Pattern Selection, Formal Concept Analysis, Pattern Structures, Stability, AI, Randomized experiments
Technologies	C++, Java, R language, WinAPI, LaTeX, Microsoft and Libre Offices, Windows, Linux

Languages

Russian (native); **English** (advansed); **French** (advanced).