

Elena Khramtcova

Curriculum Vitae

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Research interests

Algorithms and Data Structures, Computational and Discrete Geometry

Professional Appointments

- Aug. 2016 – Present **Postdoctoral researcher**, *Algorithms Research Group*, Department of Mathematics and Computer Science, Université Libre de Bruxelles (ULB), Brussels, Belgium.
- Oct. 2011 – Jul. 2016 **Research and teaching assistant**, *Faculty of Informatics, Università della Svizzera Italiana (USI)*, Lugano, Switzerland.
- Sep. 2010 – Sep. 2011 **Junior Researcher**, *NEUROSCIENCE LAB.*, Saint-Petersburg State University (SPbSU), Russia.

Education

- Oct. 2011 – Jul. 2016 **PhD**, *Faculty of Informatics, Università della Svizzera Italiana (USI)*, Lugano, Switzerland.
Thesis title: *On the Hausdorff and Other Cluster Voronoi Diagrams*
Supervisor: Prof. Evanthia Papadopoulou
- Sep. 2005 – Jul. 2010 **Specialist Diploma (equal to MSc degree) with Distinction**, *Saint-Petersburg State University (SPbSU)*, Russia, Major: Mathematician and Software Engineer; GPA: 4.8/5.0.
Thesis title: *Presaccadic peak detection problem in electrooculography method of eye-tracking*
- Sep. 2001 – Jun. 2005 **Graduate**, *Physics and Mathematics Lyceum 239*, St. Petersburg, GPA: 4.5/5.0.

Grants

- Jan. 2017 – Jul. 2018 **Early PostDoc Mobility fellowship**, *Swiss National Science Foundation (SNF)*.
Project title: Computational geometry on convex polyhedral surfaces

Conference and invited talks

- 13.04.2016 *Stabbing circles for sets of segments in the plane*, LATIN 2016: Theoretical Informatics - 12th Latin American Symposium, Ensenada, México
- 30.03.2016 *Stabbing circles for sets of segments in the plane*, 32th European Workshop on Computational Geometry (EuroCG'16), Lugano, Switzerland
- 8.10.2015 *On cluster Voronoi diagrams*, Eindhoven University of Technology (TU/e), Netherlands

- 1.10.2015 —————, Université Libre de Bruxelles, Belgium
- 21.06.2015 *Stabbing circles, Voronoi diagrams and duality*, Algorithmic methods laboratory, Steklov Institute of Mathematics, St. Petersburg, Russia
- 3.07.2015 *Stabbing circles for sets of segments in the plane*, 16th Spanish Meeting on Computational Geometry (EGC'15), Barcelona, Spain
- 18.03.2015 *Linear-Time Algorithms for the Farthest-Segment Voronoi Diagram and Related Tree Structures*, 31th European Workshop on Computational Geometry (EuroCG'15), Ljubljana, Slovenia
- 2.04.2014 *A Randomized Incremental Approach for the Hausdorff Voronoi Diagram of Non-crossing Clusters*, LATIN 2014: Theoretical Informatics - 11th Latin American Symposium, Montevideo, Uruguay
- 5.03.2014 *A simple RIC for the Hausdorff Voronoi Diagram of Non-crossing clusters*, 30th European Workshop on Computational Geometry (EuroCG'14), Ein-Gedi, Israel
- 18.02.2014 *Randomized Incremental Constructions for the Hausdorff Voronoi diagram of point clusters*, ESF EuroGIGA final conference, Berlin, Germany
- 10.07.2013 *On Hausdorff Voronoi diagram of non-crossing clusters*, ESF EuroGIGA meeting, Graz, Austria
- 19.03.2013 *Randomized incremental construction of Hausdorff Voronoi diagram of non-crossing clusters*, 29th European Workshop on Computational Geometry (EuroCG'13), Braunschweig, Germany

Research visits and workshops

- 28.11-2.12.2016 Workshop: *Uncertainty in Motion*, U. Utrecht, the Netherlands
- 2-10.10.2016 U. Helsinki, Finland; Visiting: Simon Puglisi
- 5-16.09.2016 U. Utrecht, the Netherlands; Visiting: Maarten Löffler
- 17-30.04.2016 Carleton University, Ottawa, Canada; Visiting: Prosenjit Bose
- 10-16.10.2015 CMO-BIRS Workshop: *Searching and Routing in Discrete and Continuous Domains*, Oaxaca, Mexico
- 7-8.10.2015 U. Utrecht and TU. Eindhoven, the Netherlands; Visiting: Irina Kostitsina, Maarten Löffler, Bettina Speckmann
- 30.09.2015 – 6.10.2015 Université Libre de Bruxelles, Belgium; Visiting: Stefan Langerman
- 8-13.03.2015 *Third Annual Workshop on Geometry and Graphs*, Bellairs Research Institute, Holetown, Barbados
- 29-30.06.2015 Universitat Politècnica de Catalunya, Barcelona, Spain; Visiting: Carlos Seara

Community service

- Program committee CCCG'17
- Reviewer ACM TSAS, WADS'17, SOCG'17, EuroCG'16, ISAAC'15, EuroCG'15
- Organizing committee EuroCG'16

Teaching, Mentoring, and University service

Assisted courses at USI

Spring 2014/15	Geometric Algorithms (MSc)
Spring 2013/14	Geometric Algorithms (MSc)
Fall 2013/14	Topics in Algorithms (BSc)
Spring 2012/13	Algorithms and Data Structures (BSc)
Fall 2012/13	Topics in Algorithms (BSc)
Spring 2011/12	Algorithms and Data Structures (BSc)

Other activities at USI

July, August 2015	Mentored a summer internship (UROP) for Andreia Faria Carvalho. Topic: <i>Visualizing the 3D Farthest-segment Voronoi diagram and its Gaussian Map</i>
2014/15	PhD students' representative, Faculty of Informatics

Programming skills

Languages	C/C++, Sage, Matlab, Mathematica, Python, Java/JScript, HTML/XML, SQL, Pascal
Libraries	CGAL library
Markup	Latex

Languages

Russian	Mothertongue
English	Proficient
Italian	Upper-intermediate (B2)
German	Beginners level

Personal information

Date of birth	12.03.1988
Nationality	Russian
Children	Evgeniia, 9 years old Viktor, 7 years old