Grigory Yaroslavtsev

CONTACT INFORMATION

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RESEARCH INTERESTS

Algorithms (exact, randomized, approximation, sublinear), combinatorial optimization, complexity theory.

EDUCATION

The Pennsylvania State University, State College, PA

Ph.D. student, College of Engineering, Department of Computer Science and Engineering, since August 2010.

- Advisor: Prof. Sofya Raskhodnikova
- Major: Theoretical Computer Science
- Expected graduation date: June 2013

St. Petersburg Academic University of the Russian Academy of Sciences, St. Petersburg, Russia

M.S., Department of Mathematics and Information Technologies, June 2010.

- Thesis title: "Finding efficient boolean ciruicts using SAT-solvers"
- Advisor: Edward A. Hirsch
- Major: Theoretical Computer Science
- GPA: 4.9/5.0

St. Petersburg State Polytechnic University, St. Petersburg, Russia

B.S., Department of Physics and Technology, June 2008

- Major: Engineering Physics

JOBS AND INTERNSHIPS

AT&T Labs — Research (http://research.att.com)
Summer intern, May 2011 — August 2011.

St. Petersburg Academic University of the Russian Academy of Sciences (www.aptu.ru).
Research assistant, March 2010 — August 2010.

FBReader project (www.fbreader.org/fbreaderj).
Java developer, October 2007 — April 2008.

PAPERS

- Ishan Behoora, Vishesh Karwa, Sofya Raskhodnikova, Adam Smith, Grigory Yaroslavtsev, *Private Analysis of Graph Structure*.

  VLDB 2011, Research track.

- Piotr Berman, Arnab Bhattacharyya, Konstantin Makarychev, Sofya Raskhodnikova, Grigory Yaroslavtsev, *Improved Approximation for the Directed Spanner Problem*.

  ICALP 2011, Track A. Invited to a special issue of a journal "Information and Computation".

  Preliminary version available from: http://www.cse.psu.edu/research/publications/tech-reports/2010/10-009.pdf.

- Piotr Berman, Arnab Bhattacharrya, Elena Grigorescu, Sofya Raskhodnikova, David Woodruff, Grigory Yaroslavtsev, *Steiner Transitive-Closure Spanners of Low-Dimensional Posets*.

  ICALP 2011, Track A.

  Preliminary version available from: http://arxiv.org/abs/1011.6100.

- Eugeny Demenkov, Arist Kojevnikov, Alexander Kulikov, Grigory Yaroslavtsev, *New upper bounds on the Boolean Circuit Complexity of Symmetric Functions*.

  Information Processing Letters, 110, pp. 264-267, Elsevier, 2010.

- Arist Kojevnikov, Alexander Kulikov and Grigory Yaroslavtsev, *Finding Efficient Circuits using SAT-solvers*.

  SAT 2009, LNCS 5584, pp. 32-44, 2009.

Talks

Conference talks:

- Private Analysis of Graph Structure
  - Very Large Databases (VLDB 2011, Research track), August 2011.
- Improved Approximation for the Directed Spanner Problem
  - International Colloquium on Automata, Languages and Programming (ICALP 2011, Track A), July 2011.
- Steiner Transitive-Closure Spanners of Low-Dimensional Posets
  - International Colloquium on Automata, Languages and Programming (ICALP 2011, Track A), July 2011.
- *Finding Efficient Circuits using SAT-solvers*
  - 51-st Scientific Conference of Moscow Institute of Physics and Technology, Moscow, December 2008.

Invited and other talks + posters:

- Private Analysis of Graph Structure.
  - Pennsylvania State University. CDI project meeting. June 2011.
  - Pennsylvania State University. Poster session at reception for visitors from Microsoft. March 2011.
- Improved Approximation for the Directed Spanner Problem
  - AT&T Labs — Research, Florham Park, NJ. Mathematics Research Colloquium and Informal Seminar June 2011.
  - STOC 2011, San Jose, CA. Poster session. June 2011.
  - Moscow State University. Combinatorial optimization and algorithms theory seminar. May 2011.
  - IBM T.J. Watson Research Center, Yorktown Heights, NY. IP for lunch. April 2011.
  - Pennsylvania State University. Theory seminar. February 2011.
  - St. Petersburg Institute of Fine Mechanics and Optics. Theory seminar. December 2010.
- Introduction to Differential Privacy (based on slides by Adam D. Smith)
  - St. Petersburg Department of Steklov Institute of Mathematics, Computer Science club, May 2011.
- Property Testing Lower Bounds via Communication Complexity
  - Moscow State University. Kolmogorov seminar. May 2011.
- Two-Party Differential Privacy and Deterministic Extraction from Santha-Vazirani Sources
  - Pennsylvania State University, Theory seminar, November 2010.
  - St. Petersburg Department of Steklov Institute of Mathematics, Computer Science club, December 2010.
  - St. Petersburg Department of Steklov Institute of Mathematics, Seminar on discrete mathematics, December 2010.

Achievements and awards

- TopCoder Open Algorithm Competition onsite finalist (Top 24 worldwide), 2010.
- College of Engineering Fellowship by the Pennsylvania State University, Fall 2010 — Spring 2013.
- University Graduate Fellowship by the Pennsylvania State University, Fall 2010 — Spring 2011.
- Third place in St. Petersburg Regional Olympiad in Informatics and Programming for university students, 2009.
- Second diploma in International Olympiad in Informatics and Programming for university students of Russia and States of the former Soviet Union, 2009.
- Third diploma in 14th All-Russian Olympiad in Informatics and Programming for university students, 2009.
- Diploma for coaching the best team in St. Petersburg Olympiad in Informatics and Programming for high-school students, 2008.
- Second place in St. Petersburg State Polytechnic University Olympiad in Mathematics, 2005.
- Best result in university admissions test for Department of Physics and Technics in St. Petersburg State Polytechnic University, 2004.

Research grants and projects

- Yandex personal research grant, 2009-2010.
- Prezident's grant for young PhDs, 2009-2010 (Primary Investigator: Arist Kojevnikov). Role: Associate investigator.
- Federal Target Programme "Scientific and scientific-pedagogical personnel of the innovative Russia" on 2009-2013, contract П265 (Primary Investigator: Edward A. Hirsch). Role: Associate investigator.

Service

Reviewer for: SICOMP, Information and Computation, IEEE Transactions on Knowledge and Data Engineering, SODA, MFCS, SAT, WADS.

Coordinator of St. Petersburg network of extracurricular education in informatics for high-school students (http://spbtc.ru) (2009 - 2010).

Judge for Baltic Science and Engineering Contest (Intel ISEF semifinals), 2010.

Technical skills

C/C++, STL, Java, HTML, XML, Windows/Linux, LaTeX.

References

- Sofya Raskhodnikova (advisor), Assistant Professor, Pennsylvania State University. sofya@cse.psu.edu
- Adam D. Smith, Associate Professor, Pennsylvania State University. asmith@cse.psu.edu
- Piotr Berman, Associate Professor, Pennsylvania State University. berman@cse.psu.edu