Ludmila Glinskih

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Education

Boston University 2019 – present
PhD (in progress), *Theoretical Computer Science*
Advisors: Dr. Sofya Raskhodnikova and Dr. Mark Bun
GPA: 3.96

St. Petersburg Department of Steklov Institute of Mathematics of Russian Academy of Sciences 2017 – 2019
Research and graduate coursework on Theoretical Computer Science
Advisor: Dr. Dmitry Itsykson

St. Petersburg Academic University of Russian Academy of Sciences 2015 – 2017
M.Sc., *Theoretical Computer Science*
Thesis: **"**Satisfiable Tseitin formulas are hard for nondeterministic read-once branching programs**"**
Advisor: Dr. Dmitry Itsykson

Peter the Great Saint-Petersburg Polytechnic University 2009 – 2014
B.Sc., *Applied Mathematics and Computer Science*

Publications

The Complexity of Verifying Boolean Programs as Differentially Private
Mark Bun, Marco Gaboardi, Ludmila Glinskih
To appear in proceedings of CSF 2022

On Tseitin Formulas, Read-Once Branching Programs and Treewidth
Ludmila Glinskih, Dmitry Itsykson
CSR 2019, **Best Paper Award winner**, invited to special issue of Theory of Computing Systems

Satisfiable Tseitin formulas are hard for nondeterministic read-once branching programs
Ludmila Glinskih and Dmitry Itsykson
MFCS 2017

Talks

The Complexity of Verifying Boolean Programs as Differentially Private Nov 22, 2021
Seminar of the Privacy Tools Project, Harvard University, Virtual

The Complexity of Verifying Boolean Programs as Differentially Private Apr 24, 2021
CRA-WP Grad Cohort for Women, Virtual

Circuit Lower Bounds from NP-Hardness of MCSP Under Turing Reductions Feb 22, 2021
MCSP reading group, Boston University, Boston, USA

Relations and Equivalences Between Circuit Lower Bounds and Karp-Lipton Theorems Nov 2, 2020
MCSP reading group, Boston University, Boston, USA

Lower bounds for MCSP for restricted circuit models — Aug 6, 2020
MCSP reading group, Boston University, Boston, USA

A survey on the Minimum Circuit Size Problem — Jun 12, 2020
MCSP reading group, Boston University, Boston, USA

Lower bounds for Read-Once Branching Programs for Tseitin formulas — Oct 28, 2019
Theory Seminar, Boston University, Boston, USA

On branching programs, Tseitin formulas and tree-width — Mar 7, 2019
24th Estonian Winter School in Computer Science, Palmse, Estonia

Lower bounds for Branching Program and Formula for Orthogonal Vectors — Nov 16, 2018
Seminar of the Laboratory of Algorithmic Methods, PDMI RAS,
St. Petersburg, Russia

Lower bound for read-once nondeterministic branching program for satisfiable Tseitin formula using tree-width — Jul 9, 2018
Workshop of Summer School on Algorithms and Lower Bounds, Satellite workshop of ICALP, Prague, Czech Republic

On branching programs, Tseitin formulas and tree-width — Jun 26, 2018
Poster at ACM STOC, Los Angeles, USA

Lower Bounds for Nondeterministic Semantic Read-Once Branching Programs — May 4, 2018
Complexity Seminar, PDMI RAS, St. Petersburg Russia

Satisfiable Tseitin formulas are hard for nondeterministic read-once branching programs — Nov 24, 2017
Joint Estonian–Latvian Theory Days, Tartu, Estonia

Satisfiable Tseitin formulas are hard for nondeterministic read-once branching programs — Aug 25, 2017
MFCS, Aalborg, Denmark

Techniques of proving lower bounds on Query Complexity — Oct 14, 2016
Seminar on Sublinear Algorithms, Computer Science Club,
St. Petersburg, Russia

Scholarships and Awards

Early-Career AMS-NSF-Simons-ICM Travel Grant — July 2022
To participate in the International Congress of Mathematicians

Dean's Fellowship — Fall 2019
Awarded to PhD students at Boston University

CSR 2019 Best Paper Award — July 2019
Paper: *On Tseitin Formulas, Read-Once Branching Programs and Treewidth*
Ludmila Glinskih, Dmitry Itsykson

TCS Women Travel Scholarship June 2018
To participate in the ACM STOC 2018

Yandex Research Fellowship Fall 2015 – Spring 2017
Awarded to Master's students at St. Petersburg Academic University RAS

Teaching

Grader Fall 2021
CS537: *Graduate Randomness in Computing*
Taught by Sofya Raskhodnikova at Boston University

Teaching Fellow Fall 2020
CS 535: Graduate Complexity Theory
Taught by Mark Bun at Boston University

Teaching Assistant Spring 2018
Complexity Theory and Randomized Algorithms
Taught by Ivan Bliznets at St. Petersburg Academic University RAS

Academic Service

Reviewer for CSR 2019, STOC 2020

Organizer of a reading group on a Minimum Circuit Size Problem (MCSP) at Boston University during Summer and Fall semester 2020 Jun 2020 – Aug 2021

Author of a Telegram channel (in Russian) with advice for junior researchers 2018 – present

Other Activities

Maintainer of FFmpeg, responsible for API test 2015 – present
FFmpeg is the leading open source multimedia framework

Member of the University Women's Soccer Team at SPbPU 2009 – 2014

Additional Education

Hilbert–Bernays Summer School on Logic and Computation, Tübingen, Germany Jul 21 – Jul 27, 2019
Expenses covered by a scholarship from the organizers

Caleidoscope: Complexity as a Kaleidoscope, Paris, France Jun 17 – Jun 21, 2019

24th Estonian Winter School in Computer Science, Mar 3 – Mar 8, 2019
Palmse, Estonia
Expenses covered by a scholarship from the organizers

PDMI RAS Computer Science Club (https://compsciclub.ru/en/) Sep 2013 – Feb 2019
St. Petersburg Russia

Summer School on Algorithms and Lower Bounds, Jul 6 – Jul 9, 2018
Prague, Czech Republic
Expenses covered by a scholarship from the organizers

Recent Advances in Algorithms, May 22 – May 26, 2018
St. Petersburg, Russia

Recent Advances in Parameterized Complexity, Dec 3 – Dec 7, 2017
Tel Aviv, Israel

Swedish Summer School in Computer Science (S3CS), Jul 16 – Jul 22, 2017
Stockholm, Sweden
Expenses covered by a scholarship from the organizers

A Special Semester on Computational and Proof Complexity, Apr – Jun, 2016
St. Petersburg, Russia

Industry Experience

Google San Francisco May 2021 – Aug 2021
Software Engineering Intern (*Cobalt)*
Added a Golang library for optimal computations of privacy encoding parameters in Cobalt – a framework for differentially private telemetry collection (https://fuchsia.googlesource.com/cobalt).
Implemented a Golang library for fast computations of privacy loss distribution.

Google Zurich Apr 2019 – Jul 2019
Site Reliability Engineering Intern (*Serving Backend SRE Team)*
Added support of integration testing and multiple integration tests for an internal load testing tool used for testing Google Search. Used internal configuration languages and Python.

Google London Jun 2017 – Sep 2017
Site Reliability Engineering Intern (*SRE Traffic Team)*
Added dynamical status updates to the internal code review tool from the tool that automatically rebuilds configuration files. Used Golang.

Google Zurich Jul 2016 – Oct 2016
Site Reliability Engineering Intern (*YouTube Core SRE Team)*
Added support of refined estimations of load on YouTube backends to improve resistance of YouTube internal services from overloading by requests from internal users. Used Python, C++, and JavaScript.

FFmpeg May 2015 – Aug 2015
Software Engineering Intern
Built a suite of tests in C for FFmpeg API.

Yandex Oct 2012 – May 2015

Quality Assurance Engineer (*Yandex.Maps Team)*

Took a leading role in quality assurance of a cartographical project similar to OpenStreetMap and ArcGIC (https://n.maps.yandex.ru)