

Leonid Barenboim – Curriculum Vitae

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Current position

August 2013 – October 2014: Postdoctoral fellow in a joint program of the Simons Institute for the Theory of Computing at **UC Berkeley** and I-CORE in Algorithms at **Weizmann Institute of Science**. Participant of the **Foundations of Big Data Analysis** research program at UC Berkeley.
Host at Weizmann Institute: Prof. David Peleg.

Education

2008 – 2013: Ph.D. in computer science, Ben-Gurion University of the Negev, Department of Computer Science.

Thesis topic: Efficient network utilization in locality sensitive distributed algorithms.

Won **Rector prize** for outstanding achievements in research.

Advisor: Prof. Michael Elkin.

2006 – 2008: M.Sc. in computer science, **summa cum laude**, Ben-Gurion University of the Negev.

Thesis topic: Improving distributed symmetry breaking algorithms using graph decomposition techniques.

Won **Zabey prize** for the best thesis in the faculty of natural science and **Feder prize** in a national competition for the best thesis conducted by the Advanced Communication Center of TAU.

Advisor: Prof. Michael Elkin.

2000 – 2004: B.A in computer science, **cum laude**, Open University of Israel.

Employment

2011-2013: **Lecturer** in the department of Computer Science, Ben-Gurion University, in the following courses:

- Selected Topics in Object Oriented Programming. (Course development and lecturing.)
- Mini-Project in Distributed Algorithms for Channel Allocation. (Course development and lecturing.)
- Object-Oriented Software Design. (Lecturing.)

2012- 2013: **Advisor** for Software Engineering final projects.

2006- 2012: **Teaching Assistant** in the department of Computer Science, Ben-Gurion University, in the following courses:

- Object Oriented Software Design
- Systems Programming
- Introduction to computer science
- Introduction to programming in C

Fellowships

- **I-CORE postdoc fellowship**, 2014
- **Simons postdoc fellowship**, 2013
- **Adams fellowship** of the Israeli Academy of Sciences and Humanities, 2011 -2013.
- **Negev fellowship**, 2009 - 2010.

Prizes

- **PODC'10 best paper award.** Awarded by the conference program committee for the best paper of the International Symposium on Principles of Distributed Computing, 2010.
- **PODC'11 best student paper award.** Awarded by the conference program committee for the best student paper of the International Symposium on Principles of Distributed Computing, 2011.
- **ICALP'12 best student paper award.** Awarded by the conference program committee for the best student paper of the International Colloquium on Automata, Languages and Programming, 2012.
- **Zabey prize** for the best M.Sc. thesis in the faculty of Natural Science, 2009.
- **Feder prize** – first place in a national competition for the best thesis in the field of communication technologies, conducted by the Advanced Communication Center of Tel-Aviv University, 2010. The M.Sc. thesis won the competition against 15 Ph.D. and M.Sc. theses in communication engineering fields.
- **Friedman prize** for outstanding research achievements, 2010.
- **Intel prize** for outstanding research achievements in the field of communications, 2011.
- **Rector prize** for excellence in research, 2012
- **Excellence in teaching award** in the department of computer science at BGU, 2013

Publications

Book

Leonid Barenboim and Michael Elkin. Distributed Graph Coloring: Fundamentals and Recent Developments. *Morgan & Claypool Synthesis Lectures on Distributed Computing*. Ed, Nancy Lynch, .MIT. 2013

Journal Publications

Leonid Barenboim, Shlomi Dolev, and Rafail Ostrovsky. Deterministic and Energy-Optimal Wireless Synchronization. *ACM Transactions on Sensor Networks*. To appear

Leonid Barenboim, Michael Elkin and Fabian Kuhn. Distributed $(\Delta + 1)$ -Coloring in Linear (in Δ) Time. *SIAM Journal on Computing*. To appear

Leonid Barenboim and Michael Elkin. Combinatorial Algorithms for Distributed Graph Coloring. *Springer Distributed Computing Journal*. To appear

Leonid Barenboim and Michael Elkin. Deterministic Distributed Vertex Coloring in Polylogarithmic Time. *Journal of ACM*, Vol. 58, No. 5, 23, 2011

Leonid Barenboim and Michael Elkin. Distributed Deterministic Edge Coloring using Bounded Neighborhood Independence. *Distributed Computing Journal, special issue of PODC'11*

Leonid Barenboim and Michael Elkin. Sublogarithmic Distributed MIS Algorithm for Sparse Graphs using Nash-Williams Decomposition. *Distributed Computing Journal, special issue of PODC'08*

Conference Papers

Leonid Barenboim, Michael Elkin, Seth Pettie, and Johannes Schneider. The Locality of Distributed Symmetry Breaking. In proc. of the Symposium on Foundations of Computer Science, FOCS 2012, New Brunswick, NJ, USA

Leonid Barenboim, On the Locality of Some NP-Complete Problems. In proc. of the International Colloquium on Automata, Languages and Programming, ICALP 2012, Warwick, UK

Leonid Barenboim, Shlomi Dolev and Rafail Ostrovsky. Deterministic and Energy-Optimal Wireless Synchronization. In proc. of the International Symposium on Distributed Computing, Disc 2011, Rome, Italy

Leonid Barenboim and Michael Elkin. Combinatorial Algorithms for Distributed Graph Coloring. In proc. of the International Symposium on Distributed Computing, Disc 2011, Rome, Italy

Leonid Barenboim and Michael Elkin. Distributed Deterministic Edge Coloring using Bounded Neighborhood Independence. In proc. of the Symposium on the Principles of Distributed Computing, PODC 2011, San Jose, California, USA

Leonid Barenboim and Michael Elkin. Deterministic Distributed Vertex Coloring in Polylogarithmic Time. In proc. of the Symposium on the Principles of Distributed Computing, PODC 2010, Zurich, Switzerland

Leonid Barenboim and Michael Elkin. Distributed $(\Delta + 1)$ -coloring in linear (in Δ) time. In proc. of the Symposium on Theory of Computing, STOC 2009, Bethesda, MD, USA

Leonid Barenboim and Michael Elkin. Sublogarithmic Distributed MIS Algorithm for Sparse Graphs using Nash-Williams Decomposition. In proc. of the Symposium on the Principles of Distributed Computing, PODC 2008, Toronto, Canada

Other Publications

Leonid Barenboim, A review of PODC 2010, SIGACT News, 41(4), December 2010