Michael	Davalda	aviah
Michael	DOLOKII	OVICII

512-293-1978

michaelbor@gmail.com

Postdoctoral Fellow

Education	Ph.D., Communication Systems Engineering. Ben-Gurion University of the Negev, Beer Sheva, Israel. Thesis: Algebraic Algorithms for Information Spreading.	
	 M.Sc., Communication Systems Engineering. Ben-Gurion University of the Negev, Beer Sheva, Israel. Graduated Summa Cum Laude. Thesis: Gossip and Random Walk Techniques for Network Coding. 	
	B.Sc., Communication Systems Engineering. Ben-Gurion University of the Negev, Beer Sheva, Israel. Graduated Cum Laude. Project: Traffic Generator Implementation on EZchip Network Processor	2001- 2005
Professional Knowledge	 Algorithms simulation Communication protocols Wolfram Mathematica C/C++, Python, Matlab GraphLab (graph engine) Real time programming Linux embedded, Kernel drivers Network processors Machine learning Sumo traffic simulator 	
Experience	University of Texas in Austin, <i>Postdoctoral Fellow.</i> - Network algorithms for graph engines, networks modeling.	2014- present
	Ben-Gurion University of the Negev, <i>Postdoctoral Fellow, Lecturer</i> . – Computer networks, distributed computing.	2013- 2014
	 Ben-Gurion University of the Negev, <i>Teaching Assistant</i>, <i>Lab Instructor</i>. Computer networks. Developed virtual computer networks lab based on Xen Virtualization. Information theory. Signal processing. 	2007- 2013
	 T-Labs Berlin, Telekom Innovation Laboratories, <i>Research Intern.</i> Software Defined Networks (SDN) - "Fast failover" in OpenFlow 	2012- 2012
	VocalTec, Software Engineer. - Worked in the VoIP Gateway project. - Developed in C, Linux embedded, Real time environment. - Developed drivers on Intel IXP2350 Xscale processor. - Developed microcode for network processor IXP2350, MEv2.	2005 2007
	Elisra Electronic Systems, <i>RF Electronics Technician</i> .	2000 2001
Military Service	Bamtza 108, Israeli Air Forces, <i>Electronics Technician, Team Leader</i> .	1997 2000

Awards	 Kreitman Post-Doctoral Scholarship 	2014
	 Excellence in teaching award, Ben-Gurion University. 	2010
	 Graduated Summa Cum Laude, M.Sc. Ben-Gurion University. 	2009
	 Cisco award for excellence in research and studies. 	2009
	 Research Scholarship from the advisor, Dr. Chen Avin. 	2009
	 Excellence Scholarship from the CSE department at BGU. 	2008
	 Graduated Cum Laude, B.Sc. Ben-Gurion University. 	2005

Review Activity

Reviewed papers from the following venues:

- International Colloquium on Automata, Languages, and Programming (ICALP)
- International Symposium on Distributed Computing (DISC)
- International Colloquium on Structural Information and Communication Complexity (SIROCCO)
- IEEE International Symposium on Information Theory (ISIT)
- ACM Symposium on Principles of Distributed Computing (PODC)
- IEEE Transactions on Information Theory
- IEEE International Conference on Computer Communications (INFOCOM)
- International Conference on Distributed Computing (ICDCN)
- International Conference on Combinatorial Optimization and Applications (COCOA)
- Mathematical Foundations of Computer Science (MFCS)
- International Conference on. Mobile Ad-hoc and Sensor Networks (MSN)
- International Conference on Embedded Wireless Systems and Networks (EWSN)

Conference Publications

M. Borokhovich, A. Chatterjee, Jason Rogers, L. R. Varshney, S. Vishwanath. **Improving Impact Sourcing via Efficient Global Service Delivery.** *Bloomberg Data for Good Exchange (D4GX), 2015.*

E. Elenberg, K. Shanmugam, M. Borokhovich, A. Dimakis.

Beyond Triangles: A Distributed Framework for Estimating 3-profiles of Large Graphs.

ACM SIGKDD Conference on Knowledge, Discovery and Data Mining (KDD), 2015.

L. Schiff, M. Borokhovich, S. Schmid.

Reclaiming the Brain: Useful OpenFlow Functions in the Data Plane. *ACM Workshop on Hot Topics in Networks (HotNets), 2014.*

M. Borokhovich, L. Schiff, S. Schmid.

Provable Data Plane Connectivity with Local Fast Failover: Introducing OpenFlow Graph Algorithms.

ACM SIGCOMM Workshop on Hot Topics in Software Defined Networking (HotSDN), 2014.

C. Avin, M. Borokhovich, Z. Lotker, and D. Peleg.

Distributed Computing on Core-Periphery Networks: Axiom-based Design.

International Colloquium on Automata, Languages, and Programming (ICALP), 2014.

M. Borokhovich, S. Schmid.

How (Not) to Shoot in Your Foot with Local Fast Failover.

International Conference on Principles of Distributed Systems (OPODIS), 2013.

C. Avin, M. Borokhovich, Z. Lotker, and D. Peleg.

Brief Announcement: Distributed MST in Core-Periphery Networks.

International Symposium on Distributed Computing (DISC), 2013.

C. Avin, M. Borokhovich, S. Schmid.

OBST: A Self-Adjusting Peer-to-Peer Overlay Based on Multiple BSTs.

IEEE International Conference on Peer-to-Peer Computing (P2P), 2013.

C. Avin, M. Borokhovich, B. Haeupler, and Z. Lotker.

Self-Adjusting Grid Networks to Minimize Expected Path Length.

International Colloquium on Structural Information and Communication Complexity (SIROCCO), 2013.

C. Avin, M. Borokhovich, Y. Hadad, E. Kantor, Z. Lotker, M. Parter, and D. Peleg. Generalized Perron-Frobenius Theorem for Multiple Choice Matrices, and Applications.

ACM-SIAM Symposium on Discrete Algorithms (SODA), 2013.

C. Avin, M. Borokhovich, Y. Hadad, Z. Lotker

Optimal virtual traffic light placement.

ACM International Workshop on Foundations of Mobile Computing (FOMC), 2012.

Avin Chen, Borokhovich Michael, Asaf Cohen, Zvi Lotker.

Efficient Distributed Source Coding for Multiple Receivers Via Matrix Sparsification.

IEEE International Symposium on Information Theory (ISIT), 2011.

Avin Chen, Borokhovich Michael, Keren Censor-Hilel, Zvi Lotker.

Order Optimal Information Spreading Using Algebraic Gossip.

ACM Symposium on Principles of Distributed Computing (PODC), 2011.

Borokhovich Michael, Avin Chen, Zvi Lotker.

Tight Bounds for Algebraic Gossip on Graphs.

IEEE International Symposium on Information Theory (ISIT), 2010.

Avin Chen, Borokhovich Michael, Arik Goldfeld.

Mastering (Virtual) Networks. A Case Study of Virtualizing Internet Lab. International Conference on Computer Supported Education (CSEDU), 2009.

Journal Publications

I. Mitliagkas, M. Borokhovich, A. Dimakis, C. Caramanis.

FrogWild! - Fast PageRank Approximations on Graph Engines.

Very Large Data Bases (VLDB), 2015.

S. Schmid, C. Avin, C. Scheideler, M. Borokhovich, B. Haeupler, Z. Lotker.

SplayNet: Towards Locally Self-Adjusting Networks.

IEEE/ACM Transactions on Networking (ToN), 2015.

C. Avin, M. Borokhovich, B. Haeupler, and Z. Lotker. **Self-Adjusting Grid Networks to Minimize Expected Path Length.** *Theoretical Computer Science*, *2014*.

C. Avin, M. Borokhovich, Y. Haddad, E. Kantor, Z. Lotker, M. Parter, D. Peleg. **Testing the Irreducibility of Nonsquare Perron-Frobenius Systems.** *Information Processing Letters, Elsevier, 2014.*

M. Borokhovich, C. Avin, and Z. Lotker. **Bounds for Algebraic Gossip on Graphs.** *Random Structures and Algorithms Journal (RSA), 2013.*

C. Avin, M. Borokhovich, K. Censor-Hillel, and Z. Lotker.

Order Optimal Information Spreading Using Algebraic Gossip.

The International Journal of Distributed Computing (DIST), 2013.

Talks Improving Impact Sourcing via Efficient Global Service Delivery.

Bloomberg Data for Good Exchange (D4GX). NYC, US. October 2015.

FrogWild! - Fast PageRank Approximations on Graph Engines. Very Large Data Bases (VLDB).
Waikoloa (Hawaii), USA. September 2015.

Reclaiming the Brain: Useful OpenFlow Functions in the Data Plane. *ACM Workshop on Hot Topics in Networks (HotNets)*. Los Angeles, USA. October 2014.

Distributed Computing on Core-Periphery Networks: Axiom-based Design. *International Colloquium on Automata, Languages, and Programming (ICALP).* Copenhagen, Denmark. July 2014.

Generalized Perron-Frobenius Theorem and Optimal Power Allocation for Multiple Transmitters.

Simons Seminar, UT Austin. Austin, USA. April 2014.

Generalized Perron-Frobenius Theorem for Multiple Choice Matrices, and Applications.

CSE Colloquium, BGU. Beer-Sheva, Israel. March 2014.

How (Not) to Shoot in Your Foot with Local Fast Failover.

International Conference on Principles of Distributed Systems (OPODIS). Nice, France. December 2013.

Brief Announcement: Distributed MST in Core-Periphery Networks.

International Symposium on Distributed Computing (DISC). Jerusalem, Israel. October 2013.

Self-Adjusting Grid Networks to Minimize Expected Path Length.

International Colloquium on Structural Information and Communication Complexity (SIROCCO).

Ischia, Italy. July 2013.

Order Optimal Information Spreading Using Algebraic Gossip.

ACM Symposium on Principles of Distributed Computing (PODC). San Jose, USA. June 2011.

Tight Bounds for Algebraic Gossip on Graphs.

IEEE International Symposium on Information Theory (ISIT). Austin, USA. June 2010.

Tight Bounds for Algebraic Gossip on Graphs.

10th Haifa Graph Workshop. Haifa, Israel, May 2010.

Tight Bounds for Algebraic Gossip on Graphs.

CSE Colloquium, BGU. Beer-Sheva, Israel. May 2010.

Mastering (Virtual) Networks. A Case Study of Virtualizing Internet Lab.

International Conference on Computer Supported Education (CSEDU). Lisbon, Portugal. March 2009.