

Keren Censor-Hillel

Personal

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Employment

2018 - present: Associate Professor at the Technion

2013 - 2018: Assistant Professor at the Technion

2010 - 2012: Simons Postdoctoral Fellow at the Theory Group, CSAIL, MIT

Education

2006-2010: Ph.D. student in Computer Science, Technion.
Advisor: Prof. Hagit Attiya
Dissertation title: Probabilistic Methods in Distributed Computing

2003-2006: M.Sc. in Computer Science, Technion.
Advisor: Prof. Tuvi Etzion
Thesis title: Constrained Codes for Two-Dimensional Channels

2000-2003: B.A. in Mathematics, Technion. *summa cum laude*.

Academic Activities

Grant Panel Member:

National Science Foundation (NSF).
Binational Science Foundation (BSF).
Binational Science Foundation (BSF) Student Travel Grants.

Journal Editorial Board:

Transactions on Algorithms (TALG), ACM, 2017-present.
Theoretical Computer Science (TCS), Elsevier, 2016-present.
SIAM Journal on Computing (SICOMP), guest co-editor for the special issue of STOC 2016.

Steering Committee Member:

International Symposium on Distributed Computing (DISC), member-at-large, 2013-2017 (two 2-year terms).

Program Committee Chair:

The 26th International Colloquium on Structural Information and Communication Complexity (SIROCCO) 2019

(**co-chair**)

The 38th IEEE International Conference on Distributed Computing Systems (ICDCS) 2018

Distributed Algorithms & Theory Track (**co-chair**)

The 12th Israeli Networking Day 2017 (**co-chair**)

The 4th Workshop on Advances in Distributed Graph Algorithms (ADGA) 2015

The 9th ACM Workshop on Foundations of Mobile Computing (FOMC) 2013 (**co-chair**)

Program Committee Member:

The 33th International Symposium on Distributed Computing (DISC) 2019

The 26th International Colloquium on Structural Information and Communication Complexity (SIROCCO) 2019

The 38th IEEE International Conference on Distributed Computing Systems (ICDCS) 2018

Distributed Algorithms & Theory Track

The 13th Latin American Theoretical Informatics Symposium (LATIN) 2018

The 1st Symposium on Simplicity in Algorithms (SOSA) 2018

The 21st International Conference on Database Theory (ICDT) 2018

The 49th ACM Symposium on Theory of Computing (STOC) 2017

The 29th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA) 2017

The 44th International Colloquium on Automata, Languages, and Programming (ICALP) 2017

The 48th ACM Symposium on Theory of Computing (STOC) 2016

The 43rd International Colloquium on Automata, Languages, and Programming (ICALP) 2016

The 17th International Conference on Distributed Computing and Networking (ICDCN) 2016

The 19th International Conference on Principles of Distributed Systems (OPODIS) 2015

The 34th Annual ACM Symposium on Principles of Distributed Computing (PODC) 2015

The 16th International Conference on Distributed Computing and Networking (ICDCN) 2015

The 15th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS) 2013

The 20th International Colloquium on Structural Information and Communication Complexity (SIROCCO) 2013

The 32nd Annual ACM Symposium on Principles of Distributed Computing (PODC) 2013

The 32nd International Conference on Distributed Computing Systems (ICDCS) 2013

The 8th ACM Workshop on Foundations of Mobile Computing (FOMC) 2012

The 31st Annual ACM Symposium on Principles of Distributed Computing (PODC) 2012

The 31st International Conference on Distributed Computing Systems (ICDCS) 2012

The 13th International Conference on Distributed Computing and Networking (ICDCN) 2012

The 25th International Symposium on Distributed Computing (DISC) 2011

Grant Reviews:

Israel Science Foundation (ISF)
Binational Science Foundation (BSF)
National Science Centre (NCN)

Journal Reviews:

Journal of the ACM (JACM), ACM Transactions on Computer Systems (TOCS), Journal of Parallel and Distributed Computing (JPDC), Distributed Computing Journal, SIAM Journal on Computing (SICOMP), Information and Computation, Journal of Computer and System Sciences (JCSS), Theory of Computing Systems, Algorithmica

Conference Reviews:

IEEE Symposium on Foundations of Computer Science (FOCS), European Symposium on Algorithms (ESA), ACM-SIAM Symposium on Discrete Algorithms (SODA), ACM Symposium on Parallelism in Algorithms and Architectures (SPAA), ACM Symposium on Principles of Distributed Computing (PODC), ACM Symposium on Theory of Computing (STOC), International Symposium on Distributed Computing (DISC), International Colloquium on Automata, Languages and Programming (ICALP), International Colloquium on Structural Information and Communication Complexity (SIROCCO), International Conference on Principles of Distributed Systems (OPODIS), ACM Workshop on Foundations of Mobile Computing (FOMC), International Conference on Distributed Computing Systems (ICDCS), International Conference on Distributed Computing and Networking (ICDCN), IEEE Transactions on Information Theory, Symposium on Theoretical Aspects of Computer Science (STACS)

Awards and Honors

2019: Yanai Prize for Excellence in Academic Education, Technion.
2018: Henry Taub Prize for Academic Excellence, Technion.
2017: Excellent Teaching Award for Spring Semester 2017, Technion.
2016: Excellent Teaching Award for Spring Semester 2016, Technion.
2016: Krill Prize, Wolf Foundation
2015: Excellent Teaching Award for Winter Semester 2014-5, Technion.
2013: Alon Fellowship, awarded by the Israeli Academy of Science
2012: Shalon Career Advancement Chair, Technion
2012: The Principles of Distributed Computing Doctoral Dissertation Award 2012
2010: Simons Postdoctoral Fellowship, CSAIL, MIT, for the years 2010-2012
Rothschild Postdoctoral Fellowship, Yad Hanadiv, for the year 2010-2011 (declined)

Students

Michal Dory, PhD
Matthias Bonne, MSc
Yuval Efron, MSc
Dean Leitersdorf, MSc

Past Students

- Seri Khoury, MSc 2018: New Lower Bounds for the CONGEST Model.
- Ami Paz, PhD 2017: Distributed Distance Computation and Related Topics.
- Gregory Schwartzman, PhD 2017: Algorithms for Environments with Uncertainty.
- Rina Levy, MSc 2017 (co-advised with Hadas Shachnai): Fast Distributed Approximation for Max-Cut.
- Tariq Toukan, MSc 2015: Fault-Tolerant Information Spreading Algorithms.

Teaching

- Winter 2018-9: Lecturer in the course “Sublinear Algorithms and Complexity in P”.
- Spring 2017, Spring 2018: Lecturer in the course “Distributed Graph Algorithms”.
- Spring 2016: Lecturer in the course “Distributed Graph Algorithms”, Technion. Received **Excellent Teaching Award**.
- Spring 2015, Winter 2015-6, Winter 2016-7: Lecturer in the course “Seminar in Distributed Graph Algorithms”, Technion
- Winter 2014-5: Lecturer in the course “Logic and Set Theory for CS”, Technion. Received **Excellent Teaching Award**.
- Winter 2013-4, Winter 2015-6, Winter 2016-7, Winter 2017-8, Winter 2018-9: Lecturer in the course “Logic and Set Theory for CS”, Technion
- Spring 2013: Lecturer in the course “Mathematical Techniques in the Theory of Distributed Computing”, Technion
- Spring 2011: Lecturer (together with Nancy Lynch) in the course “Distributed Algorithms: New Topics and Techniques”, MIT
- 2008-2009: Teaching assistant **in charge** in the course “Logic and Set Theory for Computer Science”, Technion
- Winter 2006-7, Spring 2008: Teaching assistant in the course “Distributed Algorithms B”, Technion
- 2003-Spring 2006, 2007: Teaching assistant in the course “Logic and Set Theory for Computer Science”, Technion
- My tutorials have been videotaped for the Technion video library.

Grants

- 2017: ERC Starting Grant, BANDWIDTH 755839.
- 2016: NSF-BSF Grant 2015803, with Bernhard Haeupler, CMU.
- 2014: ISF (Israel Science Foundation) Individual Research Grant 1696/14.

Invited Talks

“Distributed Spanner Approximation”

Invited talk, The 7th French-Israeli Workshop on Foundations of Computer Science (FILFOCS), October 2018

“Barriers due to Congestion and Two Ways to Deal With Them”

Keynote talk, The ACM Symposium on Principles of Distributed Computing (PODC), July 2018

“Distributed Property Testing”

Invited talk, “18th Haifa Workshop on Interdisciplinary Applications of Graphs, Combinatorics and Algorithms”, May 2018

Invited talk, “Formal Methods and Fault-Tolerant Distributed Computing: Forging an Alliance”, Dagstuhl Seminar, Germany, May 2018

“Lower Bounds under Bandwidth Limitations”

Workshop on Algorithms for Big Data, TAU, November 2017

“New Lower Bounds for the Congest Model”

The 8th Bertinoro Workshop on Algorithms and Data Structures (ADS), June 2017

“The Landscape of Lower Bounds for the Congest Model”

The 23rd International Colloquium on Structural Information and Communication Complexity (SIROCCO 2016), July 2016

“Optimal Dynamic Distributed MIS”,

8th Israel CS Theory Day, Open University, December 2015

Weizmann Institute, April 2016

Colloquium of the Department of Mathematics, Technion, April 2016

Colloquium of the Department of Electrical Engineering, Technion, May 2017

Bar-Ilan University, May 2017

Ben-Gurion University, June 2017

“Tight Bounds for Vertex Connectivity after Sampling”,

The 7th Bertinoro Workshop on Algorithms and Data Structures (ADS), June 2015

“Are Lock-Free Algorithms Practically Wait-Free?”,

5th Annual Henry Taub International TCE Conference, Technion, June 2015

“Algebraic Methods in the Congested Clique”,

University of Calgary, March 2015

BIRS, March 2015

“Distributed Algorithms as Combinatorial Graph Structures”,

Workshop on Advances in Distributed Graph Algorithms (ADGA), October 2014

Yahoo! Research Lab Haifa, October 2014

Nexus of Information and Computation Theories, Distributed Computation and Communication Theme, The Henri Poincare Institute (IHP), February 2016

TU Vienna, February 2016

“Distributed Connectivity Decomposition”,

Tel-Aviv University, July 2014

Workshop on Randomized Network Algorithms, July 2014

“A New Perspective on Vertex Connectivity”
Tel-Aviv University, May 2013
The 6th Bertinoro Workshop on Algorithms and Data Structures (ADS), June 2013
Social Network Workshop, July 2013
Bar-Ilan University, December 2013

“Connected Dominating Set Packings”
Dagstuhl, January 2013

“Information Spreading in Distributed Systems”
Mini-course, The 1st Latin American Theoretical Informatics School, April 2012

“Polylogarithmic Snapshots”
BIRS, February 2012

“Fast Distributed Computing Despite Poor Connectivity”
Weizmann Institute, January 2012
Technion, January 2012
Tel-Aviv University, January 2012
The Hebrew University, January 2012
Ben-Gurion University, January 2012
MIT, February 2012
Harvard, February 2012

“Fast Information Spreading in Graphs with Large Weak Conductance”
MIT, November 2010
University of Toronto, November 2010
MIT, September 2010

“Partial Information Spreading with Application to Distributed Maximum Coverage”
Weizmann Institute, July 2010

“Max Registers, Counters, and Monotone Circuits”
CS Department Technion, January 2010

“Approximate Shared-Memory Counting Despite a Strong Adversary”
ETH, June 2009
EE Department Technion, March 2009
Microsoft Research Silicon Valley, February 2009

“Lower Bounds for Asynchronous Randomized Consensus”
BIRS, January 2009

“Lower Bounds for Randomized Consensus under a Weak Adversary”
Yale University, August 2008

“Tight Bounds for Asynchronous Randomized Consensus”
Yale University, June 2007

Publications

Editorials

- [1] Keren Censor-Hillel and Valerie King (Eds.) Proceedings of the 9th International Workshop on Foundations of Mobile Computing (FOMC), Jerusalem, Israel, October 17-18, 2013. EPTCS 132, 2013.

Journal Articles

- [1] Amir Abboud, Keren Censor-Hillel, Seri Khoury and Christoph Lenzen. Fooling Views: A New Lower Bound Technique for Distributed Computations under Congestion. Submitted.
- [2] Amir Abboud, Keren Censor-Hillel, Seri Khoury and Ami Paz. Smaller Cuts, Higher Lower Bounds. Submitted.
- [3] Keren Censor-Hillel, Erez Kantor, Nancy Lynch and Merav Parter. Computing in Additive Networks with Bounded-Information Codes. Submitted.
- [4] Keren Censor-Hillel, Erez Petrank and Shahar Timnat. Help! Submitted.
- [5] James Aspnes and Keren Censor-Hillel. Atomic Snapshots in $O(\log^3 n)$ Steps using Randomized Helping. Submitted.
- [6] Keren Censor-Hillel, Ami Paz and Mor Perry. Approximate Proof-Labeling Schemes. *Theor. Comput. Sci. (TCS)*, accepted.
- [7] Keren Censor-Hillel, Petteri Kaski, Janne H. Korhonen, Christoph Lenzen, Ami Paz and Jukka Suomela. Algebraic Methods in the Congested Clique. *Distributed Computing (DC)*, accepted.
- [8] Keren Censor-Hillel, Eldar Fischer, Gregory Schwartzman and Yadu Vasudev. Fast Distributed Algorithms for Testing Graph Properties. *Distributed Computing (DC)*, 32(1): 41-57 (2019).
- [9] Keren Censor-Hillel, Telikepalli Kavitha, Ami Paz and Amir Yehudayoff. Distributed Construction of Purely Additive Spanners. *Distributed Computing (DC)*, 31(3): 223-240 (2018).
- [10] Keren Censor-Hillel and Tariq Toukan. On Fast and Robust Information Spreading in the Vertex-Congestion Model. *Theor. Comput. Sci. (TCS)* 751: 74-90 (2018).
- [11] James Aspnes, Keren Censor-Hillel and Eitan Yaakobi. Concurrent use of write-once memory. *J. Parallel Distrib. Comput. (JPDC)* 113: 250-260 (2018)
- [12] Keren Censor-Hillel, George Giakkoupis, Mohsen Ghaffari, Bernhard Haeupler, and Fabian Kuhn. Tight Bounds on Vertex Connectivity under Sampling. *ACM Transactions on Algorithms (TALG)*, 13(2): 19:1-19:26 (2017).
- [13] Reuven Bar-Yehuda, Keren Censor-Hillel and Gregory Schwartzman. A Distributed $(2 + \epsilon)$ -Approximation for Vertex Cover in $O(\log \Delta / \epsilon \log \log \Delta)$ Rounds. *Journal of the ACM (JACM)*, 64(3): 23:1-23:11 (2017).
- [14] Keren Censor-Hillel, Bernhard Haeupler, Jonathan Kelner, and Petar Maymounkov. Rumor Spreading with No Dependence on Conductance. *SIAM Journal on Computing (SICOMP)*, Volume 46, Issue 1, pages 58-79, 2017.
- [15] Dan Alistarh, Keren Censor-Hillel, and Nir Shavit. Are Lock-Free Concurrent Algorithms Practically Wait-Free? Accepted to the Journal of the ACM (JACM). *Journal of the ACM (JACM)*, 63(4): 31:1-31:20 (2016).
- [16] James Aspnes, Hagit Attiya, Keren Censor-Hillel and Danny Hendler. Lower bounds for restricted-use objects. *SIAM Journal on Computing (SICOMP)*, 45(3): 734-762 (2016).
- [17] Giuseppe Bianchi, Lorenzo Bracciale, Keren Censor-Hillel, Andrea Lincoln, and Muriel Médard. The One-out-of-k Retrieval Problem and Linear Network Coding. *Advances in Mathematics of Communications (AMC)*, Vol. 10, no. 1, February 2016.
- [18] Keren Censor-Hillel, Bernhard Haeupler, Nancy Lynch and Muriel Médard. Bounded-Contention Coding for the Additive Network Model. *Distributed Computing* 28(5): 297-308 (2015).
- [19] James Aspnes, Hagit Attiya, Keren Censor-Hillel and Faith Ellen. Limited-Use Atomic Snapshots with Polylogarithmic Step Complexity. *Journal of the ACM (JACM)*, 62(1): 3 (2015).

- [20] Dan Alistarh, James Aspnes, Keren Censor-Hillel, Seth Gilbert, and Rachid Guerraoui. Tight bounds for asynchronous renaming. *Journal of the ACM (JACM)*, 61(3), 2014.
- [21] Keren Censor-Hillel, Seth Gilbert, Fabian Kuhn, Nancy Lynch and Calvin Newport. Structuring Unreliable Radio Networks. *Distributed Computing (DC)*, Volume 27, Issue 1, pages 1-19, 2014.
- [22] Chen Avin, Michael Borokhovich, Keren Censor-Hillel and Zvi Lotker. Order Optimal Information Spreading Using Algebraic Gossip. *Distributed Computing (DC)*, Volume 26, Issue 2, pages 99-117, 2013.
- [23] Keren Censor-Hillel and Hadas Shachnai. Fast Information Spreading in Graphs with Large Weak Conductance. *SIAM Journal on Computing (SICOMP)*, 41(6): 1451-1465 (2012).
- [24] James Aspnes, Hagit Attiya and Keren Censor-Hillel. Polylogarithmic Concurrent Data Structures from Monotone Circuits. *Journal of the ACM (JACM)*, 59(1), 2012.
- [25] Hagit Attiya and Keren Censor. Lower bounds for randomized consensus under a weak adversary. *SIAM Journal on Computing (SICOMP)*, 39(8): 3885–3904, 2010.
- [26] James Aspnes, Hagit Attiya and Keren Censor. Combining shared coin algorithms. *Journal of Parallel and Distributed Computing (JPDC)*, Volume 70, Issue 3, pages 317–322, March 2010.
- [27] James Aspnes and Keren Censor. Approximate shared-memory counting despite a strong adversary. *ACM Transactions on Algorithms (TALG), SODA 2009 special issue*, Volume 6, Issue 2, March 2010.
- [28] Hagit Attiya and Keren Censor. Tight bounds for asynchronous randomized consensus. *Journal of the ACM (JACM)*, 55(5):1–26, 2008.
- [29] Keren Censor and Tuvi Etzion. The positive capacity region of two-dimensional run-length-constrained channels. *IEEE Transactions on Information Theory*, 52(11):5128–5140, 2006.

Conference Proceedings

- [1] Keren Censor-Hillel, Dean Leitersdorf and Elia Turner. Sparse Matrix Multiplication and Triangle Listing in the Congested Clique Model. In Proceedings of the 22nd International Conference on Principles of Distributed Systems (OPODIS), 4:1-4:17, 2018.
Best Student Paper Award
- [2] Keren Censor-Hillel, Ami Paz and Noam Ravid. The Sparsest Additive Spanner via Multiple Weighted BFS Trees. In Proceedings of the 22nd International Conference on Principles of Distributed Systems (OPODIS), 7:1-7:16, 2018.
- [3] Keren Censor-Hillel and Michal Dory. Distributed Spanner Approximation. In Proceedings of the 37th ACM Symposium on Principles of Distributed Computing (PODC), pages, 139-148, 2018.
- [4] Keren Censor-Hillel, Ran Gelles and Bernhard Haeupler. Making Asynchronous Distributed Computations Robust to Noise. In Proceedings of the 9th Innovations in Theoretical Computer Science Conference (ITCS), pages 50:1-50:20, 2018.
- [5] Keren Censor-Hillel and Michal Dory. Fast Distributed Approximation for TAP and 2-Edge Connectivity. In Proceedings of The 21st International Conference on Principles of Distributed Systems (OPODIS), pages 21:1-21:20, 2017.
Best Paper Award
- [6] Keren Censor-Hillel, Seri Khoury and Ami Paz. Quadratic and Near-Quadratic Lower Bounds for the CONGEST Model. In Proceedings of the 31st International Symposium on Distributed Computing (DISC), pages 10:1-10:16, 2017.

- [7] Keren Censor-Hillel, Merav Parter and Gregory Schwartzman. Derandomizing Local Distributed Algorithms under Bandwidth Restrictions. In Proceedings of the 31st International Symposium on Distributed Computing (DISC), pages 11:1-11:16, 2017.
- [8] Keren Censor-Hillel, Rina Levy and Hadas Shachnai. Fast Distributed Approximation for Max-Cut. The 13th International Symposium on Algorithms and Experiments for Wireless Sensor Networks (ALGOSENSORS), 2017.
- [9] Keren Censor-Hillel, Ami Paz and Mor Perry. Approximate Proof-Labeling Schemes. The 24th International Colloquium on Structural Information and Communication Complexity (SIROCCO), pages 71-89, 2017.
Invited to be submitted to the Special Issue of SIROCCO 2017 in Theoretical Computer Science (TCS).
- [10] Keren Censor-Hillel and Michal Dory. Brief Announcement: Distributed Approximation for Tree Augmentation. In Proceedings of the 36th ACM Symposium on Principles of Distributed Computing (PODC), pages 199–201, 2017.
- [11] Keren Censor-Hillel, Bernhard Haeupler, D. Ellis Hershkowitz and Goran Zuzic. Broadcasting in Noisy Radio Networks. In Proceedings of the 36th ACM Symposium on Principles of Distributed Computing (PODC), pages 33-42, 2017.
- [12] Reuven Bar-Yehuda, Keren Censor-Hillel, Mohsen Ghaffari and Gregory Schwartzman. Distributed Approximation of Maximum Independent Set and Maximum Matching. In Proceedings of the 36th ACM Symposium on Principles of Distributed Computing (PODC), pages 165-174, 2017.
Invited to be submitted to the Special Issue of PODC 2017 in Distributed Computing (DC). Invitation declined.
- [13] Keren Censor-Hillel, Telikepalli Kavitha, Ami Paz and Amir Yehudayoff. Distributed Construction of Purely Additive Spanners. In Proceedings of the 30th International Symposium on Distributed Computing (DISC), pages 129-142, 2016.
- [14] Amir Abboud, Keren Censor-Hillel and Seri Khoury. Near-Linear Lower Bounds for Distributed Distance Computations, Even in Sparse Networks. In Proceedings of the 30th International Symposium on Distributed Computing (DISC), pages 29–42, 2016.
Best Student Paper Award.
- [15] Keren Censor-Hillel, Eldar Fischer, Gregory Schwartzman and Yadu Vasudev. Fast Distributed Algorithms for Testing Graph Properties. In Proceedings of the 30th International Symposium on Distributed Computing (DISC), pages 43-56, 2016.
- [16] James Aspnes, Keren Censor-Hillel and Eitan Yaakobi. Concurrent use of write-once memory. In Proceedings of the 23rd International Colloquium on Structural Information and Communication Complexity (SIROCCO), pages 127–142, 2016.
- [17] Reuven Bar-Yehuda, Keren Censor-Hillel and Gregory Schwartzman. A Distributed $(2 + \epsilon)$ -Approximation for Vertex Cover in $O(\log \Delta / \epsilon \log \log \Delta)$ Rounds. In Proceedings of the 35th ACM Symposium on Principles of Distributed Computing (PODC), pages 3–8, 2016.
Best Student Paper Award.
Invited to be submitted to the Special Issue of PODC 2016 in the Journal of the ACM (JACM).
- [18] Keren Censor-Hillel, Elad Haramaty and Zohar Karnin. Optimal Dynamic Distributed MIS. In Proceedings of the 35th ACM Symposium on Principles of Distributed Computing (PODC), pages 217–226, 2016.
- [19] Keren Censor-Hillel, Erez Kantor, Nancy Lynch and Merav Parter. Computing in Additive Networks with Bounded-Information Codes. In Proceedings of the 29th International Symposium on Distributed Computing (DISC), pages 405–419, 2015.

- [20] Keren Censor-Hillel and Tariq Toukan. On Fast and Robust Information Spreading in the Vertex-Congest Model. In *Proceedings of the 22nd International Colloquium Structural Information and Communication Complexity (SIROCCO)*, pages 270–284, 2015.
Invited to be submitted to the Special Issue of SIROCCO 2015 in Theoretical Computer Science (TCS).
- [21] Keren Censor-Hillel, Erez Petrank and Shahar Timnat. Help! In *Proceedings of the 34th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 241–250, 2015.
Invited to be submitted to the Special Issue of PODC 2015 in Distributed Computing (DC).
- [22] Keren Censor-Hillel, Petteri Kaski, Janne H. Korhonen, Christoph Lenzen, Ami Paz and Jukka Suomela. Algebraic Methods in the Congested Clique. In *Proceedings of the 34th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 143–152, 2015.
Invited to be submitted to the Special Issue of PODC 2015 in Distributed Computing (DC).
- [23] Keren Censor-Hillel, George Giakkoupis, Mohsen Ghaffari, Bernhard Haeupler, and Fabian Kuhn. Tight Bounds on Vertex Connectivity under Vertex Sampling. In *Proceedings of the 26th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 2006–2018, 2015.
Invited to be submitted to the Special Issue of SODA 2015 in Transactions on Algorithms (TALG).
- [24] Giuseppe Bianchi, Lorenzo Bracciale, Keren Censor-Hillel, Andrea Lincoln, and Muriel Médard. The One-out-of-k Retrieval Problem and Linear Network Coding. The 4th International Castle Meeting on Coding Theory and Applications (4ICMCTA), 2014.
- [25] Keren Censor-Hillel, Mohsen Ghaffari, and Fabian Kuhn. Distributed Connectivity Decomposition. In *Proceedings of the 33rd ACM Symposium on Principles of Distributed Computing (PODC)*, pages 156–165, 2014.
Best Student Paper Award.
Invited to be submitted to the Special Issue of PODC 2014 in the Journal of the ACM (JACM).
- [26] Dan Alistarh, Keren Censor-Hillel, and Nir Shavit. Are Lock-Free Concurrent Algorithms Practically Wait-Free? In *Proceedings of the 46th symposium on Theory of Computing (STOC)*, pages 714–723, 2014. Brief announcement in *Proceedings of the 33rd ACM Symposium on Principles of Distributed Computing (PODC)*, pages 50–52, 2014.
- [27] Keren Censor-Hillel, Mohsen Ghaffari, and Fabian Kuhn. A New Perspective on Vertex Connectivity. In *Proceedings of the 25th annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 546–561, 2014.
- [28] James Aspnes and Keren Censor-Hillel. Atomic Snapshots in $O(\log^3 n)$ Steps using Randomized Helping. In *Proceedings of the 27th International Symposium on Distributed Computing (DISC)*, pages 254–268, 2013.
- [29] Keren Censor-Hillel, Bernhard Haeupler, Nancy Lynch, and Muriel Médard. Bounded-Contention Coding for Wireless Networks in the High SNR Regime. In *Proceedings of the 26th International Symposium on Distributed Computing (DISC)*, pages 91–105, 2012.
- [30] James Aspnes, Hagit Attiya, Keren Censor-Hillel and Faith Ellen. Faster than Optimal Snapshots (for a While). In *Proceedings of the 31st ACM Symposium on Principles of Distributed Computing (PODC)*, pages 375–384, 2012.
Invited to be submitted to the Special Issue of PODC 2012 in Distributed Computing (DC). Invitation declined.
- [31] James Aspnes, Hagit Attiya, Keren Censor-Hillel and Danny Hendler. Lower bounds for restricted-use objects. In *Proceedings of the 24th ACM symposium on Parallelism in algorithms and architectures (SPAA)*, pages 172–181, 2012.
- [32] Keren Censor-Hillel, Bernhard Haeupler, Jonathan Kelner and Petar Maymounkov. Global computation in a poorly connected world: fast rumor spreading with no dependence on conductance. In *Proceedings of the 44th symposium on Theory of Computing (STOC)*, pages 961–970, 2012.

- [33] Keren Censor-Hillel, Seth Gilbert, Fabian Kuhn, Nancy Lynch and Calvin Newport. Structuring Unreliable Radio Networks. In *Proceedings of the 30th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 79–88, 2011.
- [34] Dan Alistarh, James Aspnes, Keren Censor-Hillel, Seth Gilbert and Morteza Zadimoghaddam. Optimal-Time Adaptive Tight Renaming, with Applications to Counting. In *Proceedings of the 30th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 239–248, 2011.
- [35] Chen Avin, Michael Borokhovich, Keren Censor-Hillel and Zvi Lotker. Order Optimal Information Spreading Using Algebraic Gossip. In *Proceedings of the 30th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 363–372, 2011.
- [36] Keren Censor-Hillel and Hadas Shachnai. Fast Information Spreading in Graphs with Large Weak Conductance. In *Proceedings of the 22nd annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 440–448, 2011.
- [37] Keren Censor Hillel and Hadas Shachnai. Partial Information Spreading with Application to Distributed Maximum Coverage. In *Proceedings of the 29th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 161–170, 2010.
- [38] Keren Censor Hillel. Multi-Sided Shared Coins and Randomized Set-Agreement. In *Proceedings of the 22nd ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*, pages 60–68, 2010.
- [39] James Aspnes, Hagit Attiya and Keren Censor. Max registers, counters, and monotone circuits. In *Proceedings of the 28th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 36–45, 2009.
Best Student Paper Award
Invited to be submitted to the Special Issue of PODC 2009 in Distributed Computing (DC). Invitation declined.
- [40] James Aspnes and Keren Censor. Approximate shared-memory counting despite a strong adversary. In *Proceedings of the 20th annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 441–450, 2009.
- [41] Hagit Attiya and Keren Censor. Lower bounds for randomized consensus under a weak adversary. In *Proceedings of the 27th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 315–324, 2008.
- [42] James Aspnes, Hagit Attiya and Keren Censor. Randomized consensus in expected $O(n \log n)$ individual work. In *Proceedings of the 27th ACM Symposium on Principles of Distributed Computing (PODC)*, pages 325–334, 2008.
- [43] Hagit Attiya and Keren Censor. Tight bounds for asynchronous randomized consensus. In *Proceedings of the 39th annual ACM Symposium on Theory of Computing (STOC)*, pages 155–164, 2007.
- [44] Keren Censor and Tuvi Etzion. The positive capacity region of two-dimensional run-length-constrained channels. In *IEEE International Symposium on Information Theory (ISIT)*, pages 155–164, 2006.

Additional Publications

- [1] Keren Censor-Hillel. Distributed Algorithms as Combinatorial Structures. SIGACT News 46(1): 63-76, 2015.
- [2] Keren Censor and Christoph Lenzen. A Review of PODC 2009. SIGACT News, Volume 40 No.4, pages 71–74, 2009.

Theses

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Best Paper Award
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