

# Publications of Yuval Emek

(with links to papers)<sup>1</sup>

Last updated on December 12, 2023

## Journals

1. Michael Elkin, Yuval Emek, Daniel A. Spielman, and Shang-Hua Teng.  
[Lower-Stretch Spanning Trees](#).  
SIAM Journal on Computing (SICOMP) 38(2):608–628, 2008.  
(Journal version of conference paper [2](#).)
2. Yuval Emek and David Peleg.  
[Approximating Minimum Max-Stretch Spanning Trees on Unweighted Graphs](#).  
SIAM Journal on Computing (SICOMP) 38(5):1761–1781, 2008.  
(Journal version of conference paper [1](#).)
3. Yuval Emek, Leszek Gasieniec, Erez Kantor, Andrzej Pelc, David Peleg, and Chang Su.  
[Broadcasting Time in UDG Radio Networks with Unknown Topology](#).  
Distributed Computing (DistComp) 21(5):331–351, 2009.  
(Journal version of conference paper [4](#).)
4. Yuval Emek and David Peleg.  
[A Tight Upper Bound on the Probabilistic Embedding of Series-Parallel Graphs](#).  
SIAM Journal on Discrete Mathematics (SIDMA) 23(4):1827–1841, 2009.  
(Journal version of conference paper [3](#).)
5. Yuval Emek, David Peleg, and Liam Roditty.  
[A Near-Linear Time Algorithm for Computing Replacement Paths in Planar Directed Graphs](#).  
ACM Transactions on Algorithms (TALG) 6(4), 2010.  
(Journal version of conference paper [5](#).)
6. Yuval Emek, Pierre Fraigniaud, Amos korman, and Adi Rosen.  
[On the Additive Constant of the  \$k\$ -Server Work Function Algorithm](#).  
Information Processing Letters (IPL) 110(24):1120–1123, 2010.  
(Journal version of conference paper [10](#).)
7. Yuval Emek.  
 [\$k\$ -Outerplanar Graphs, Planar Duality, and Low Stretch Spanning Trees](#).  
Algorithmica 61(1):141–160, 2011.  
(Journal version of conference paper [9](#).)

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<sup>1</sup>The links provided here lead to the most updated versions of the corresponding papers.

8. Yuval Emek, Pierre Fraigniaud, Amos Korman, and Adi Rosen.  
[Online Computation with Advice.](#)  
Theoretical Computer Science (TCS) 412(24):2642–2656, 2011.  
(Journal version of conference paper [7.](#))
9. Yuval Emek and Amos Korman.  
[New Bounds for the Controller Problem.](#)  
Distributed Computing (DistComp) 24(3):177–186, 2011.  
(Journal version of conference paper [11.](#))
10. Shiri Chechik, Yuval Emek, Boaz Patt-Shamir, and David Peleg.  
[Sparse Reliable Graph Backbones.](#)  
Information and Computation (I&C) 210, pages 31–39, 2012.  
(Journal version of conference paper [14.](#))
11. Chen Avin, Yuval Emek, Erez Kantor, Zvi Lotker, David Peleg, and Liam Roditty.  
[SINR Diagrams: Convexity and Its Applications in Wireless Networks.](#)  
Journal of the ACM (JACM), 59(4):18:1–18:34, 2012.  
(Journal version of conference paper [8.](#))
12. Yuval Emek, Magnus M. Halldorsson, Yishay Mansour, Boaz Patt-Shamir, Jaikumar Radhakrishnan, and Dror Rawitz.  
[Online Set Packing.](#)  
SIAM Journal on Computing (SICOMP) 41(4):728–746, 2012.  
(Journal version of conference paper [16.](#))
13. Noga Alon, Yuval Emek, Michal Feldman, and Moshe Tennenholtz.  
[Bayesian Ignorance.](#)  
Theoretical Computer Science (TCS) 452, pages 1–11, 2012.  
(Journal version of conference paper [15.](#))
14. Yuval Emek and Michal Feldman.  
[Computing Optimal Contracts in Combinatorial Agencies.](#)  
Theoretical Computer Science (TCS) 452, pages 56–74, 2012.  
(Journal version of conference paper [12.](#))
15. Noga Alon, Yuval Emek, Michal Feldman, and Moshe Tennenholtz.  
[Adversarial Leakage in Games.](#)  
SIAM Journal on Discrete Mathematics (SIDMA) 27(1), pages 363–385, 2013.  
(Journal version of conference paper [13.](#))
16. Yuval Emek, Michal Feldman, Iftah Gamzu, Renato Paes Leme, and Moshe Tennenholtz.  
[Signaling Schemes for Revenue Maximization.](#)  
ACM Transactions on Economics and Computation (TEAC) 2(2):5, 2014.  
(Journal version of conference paper [22.](#))

17. Noga Alon, Yuval Emek, Michal Feldman, and Moshe Tennenholtz.  
[Economical Graph Discovery](#).  
Operations Research (OPRE) 62(6):1236–1246, 2014.  
(Journal version of conference paper [18](#).)
18. Yuval Emek, Tobias Langner, David Stolz, Jara Uitto, and Roger Wattenhofer.  
[How Many Ants Does It Take To Find the Food?](#)  
Theoretical Computer Science (TCS) 608, pages 255–267, 2015.  
(Journal version of conference paper [30](#).)
19. Yuval Emek, Magnus M. Halldorsson, and Adi Rosen.  
[Space-Constrained Interval Selection](#).  
ACM Transactions on Algorithms (TALG) 12(4):51, 2016.  
(Journal version of conference paper [23](#).)
20. Yuval Emek, Erez Kantor, and David Peleg.  
[On the Effect of the Deployment Setting on Broadcasting in Euclidean Radio Networks](#).  
Distributed Computing (DistComp) 29(6):409–434, 2016.  
(Journal version of conference paper [6](#).)
21. Yuval Emek and Adi Rosen.  
[Semi-Streaming Set Cover](#).  
ACM Transactions on Algorithms (TALG) 13(1):6, 2016.  
(Journal version of conference paper [26](#).)
22. Yuval Emek, Yaacov Shapiro, and Yuyi Wang.  
[Minimum Cost Perfect Matching with Delays for Two Sources](#).  
Theoretical Computer Science (TCS) 754:122–129, 2019.  
(Journal version of conference paper [35](#).)
23. Yakov Babichenko, Yuval Emek, Michal Feldman, Boaz Patt-Shamir, Ron Peretz, and Rann Smorodinsky.  
[Stable Secretaries](#).  
Algorithmica 81(8):3136–3161, 2019.  
(Journal version of conference paper [36](#).)
24. Yuval Emek and Jara Uitto.  
[Dynamic Networks of Finite State Machines](#).  
Theoretical Computer Science (TCS) 810:58–71, 2020.  
(Journal version of conference paper [33](#).)
25. Yuval Emek, Shay Kutten, Ron Lavi, and Yangguang Shi.  
[Approximating Generalized Network Design under \(Dis\)economies of Scale with Applications to Energy Efficiency](#).  
Journal of the ACM (JACM) 67(1):7:1–7:33, 2020.  
(Journal version of conference paper [39](#).)

26. Sebastian Brandt, Yuval Emek, Jara Uitto, and Roger Wattenhofer.  
[A Tight Lower Bound for the Capture Time of the Cops and Robbers Game.](#)  
Theoretical Computer Science (TCS) 829:143–163, 2020.  
(Journal version of conference paper [37](#).)
27. Yuval Emek, Shay Kutten, Ron Lavi, and Yangguang Shi.  
[Bayesian Generalized Network Design.](#)  
Theoretical Computer Science (TCS), 841:167–185, 2020.  
(Journal version of conference paper [45](#).)
28. Aya Goldshtein, Michal Handel, Ofri Eitan, Afrine Bonstein, Talia Shaler, Simon Collet, Stefan Greif, Rodrigo A. Medellín, Yuval Emek, Amos Korman, and Yossi Yovel.  
[Reinforcement Learning Enables Resource Partitioning in Foraging Bats.](#)  
Current Biology 30:1–7, 2020.
29. Yuval Emek, Ron Lavi, Rad Niazadeh, and Yangguang Shi.  
[Stateful Posted Pricing with Vanishing Regret via Dynamic Deterministic Markov Decision Processes.](#)  
To appear in Mathematics of Operations Research (MOR).  
(Journal version of conference paper [52](#).)
30. Ruben Becker, Yuval Emek, Mohsen Ghaffari, and Christoph Lenzen.  
[Decentralized Low Stretch Trees via Low Diameter Graph Decompositions.](#)  
To appear in SIAM Journal on Computing (SICOMP).  
(Journal version of conference papers [46](#) and [49](#).)

## Refereed conferences

1. Yuval Emek and David Peleg.  
[Approximating Minimum Max-Stretch Spanning Trees on Unweighted Graphs.](#)  
In Proceedings of the 15<sup>th</sup> ACM-SIAM Symposium on Discrete Algorithms (SODA), pages 261–270, 2004.
2. Michael Elkin, Yuval Emek, Daniel A. Spielman, and Shang-Hua Teng.  
[Lower-Stretch Spanning Trees.](#)  
In Proceedings of the 37<sup>th</sup> ACM Symposium on Theory of Computing (STOC), pages 494–503, 2005.  
(*Invited to STOC 2005's special issue in SICOMP.*)
3. Yuval Emek and David Peleg.  
[A Tight Upper Bound on the Probabilistic Embedding of Series-Parallel Graphs.](#)  
In Proceedings of the 17<sup>th</sup> ACM-SIAM Symposium on Discrete Algorithms (SODA), pages 1045–1053, 2006.

4. Yuval Emek, Leszek Gasieniec, Erez Kantor, Andrzej Pelc, David Peleg, and Chang Su.  
[Broadcasting in UDG Radio Networks with Unknown Topology.](#)  
In Proceedings of the 26<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 195–204, 2007.  
*(Invited to PODC 2007's special issue in DistComp.)*
5. Yuval Emek, David Peleg, and Liam Roditty.  
[A Near-Linear Time Algorithm for Computing Replacement Paths in Planar Directed Graphs.](#)  
In Proceedings of the 19<sup>th</sup> ACM-SIAM Symposium on Discrete Algorithms (SODA), pages 428–435, 2008.  
*(Invited to SODA 2008's special issue in TALG.)*
6. Yuval Emek, Erez Kantor, and David Peleg.  
[On the Effect of the Deployment Setting on Broadcasting in Euclidean Radio Networks.](#)  
In Proceedings of the 27<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 223–232, 2008.
7. Yuval Emek, Pierre Fraigniaud, Amos Korman, and Adi Rosen.  
[Online Computation with Advice.](#)  
In Proceedings of the 36<sup>th</sup> International Colloquium on Automata, Languages and Programming (ICALP, track A), pages (1)427–438, 2009.  
*(Invited to ICALP 2009's special issue in TCS.)*
8. Chen Avin, Yuval Emek, Erez Kantor, Zvi Lotker, David Peleg, and Liam Roditty.  
[SINR Diagrams: Towards Algorithmically Usable SINR Models of Wireless Networks.](#)  
In Proceedings of the 28<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 200–209, 2009.
9. Yuval Emek.  
[k-Outerplanar Graphs, Planar Duality, and Low Stretch Spanning Trees.](#)  
In Proceedings of the 17<sup>th</sup> Annual European Symposium on Algorithms (ESA), pages 203–214, 2009.  
*(Invited to ESA 2009's special issue in Algorithmica.)*
10. Yuval Emek, Pierre Fraigniaud, Amos Korman, and Adi Rosen.  
[On the Additive Constant of the k-Server Work Function Algorithm.](#)  
In Proceedings of the 7<sup>th</sup> Workshop on Approximation and Online Algorithms (WAOA), pages 128–134, 2009.
11. Yuval Emek and Amos Korman.  
[New Bounds for the Controller Problem.](#)  
In Proceedings of the 23<sup>rd</sup> International Symposium on Distributed Computing (DISC), pages 22–34, 2009.  
*(Invited to DISC 2009's special issue in DistComp.)*

12. Yuval Emek and Michal Feldman.  
[Computing Optimal Contracts in Series-Parallel Heterogeneous Combinatorial Agencies.](#)  
In Proceedings of the 5<sup>th</sup> Workshop on Internet & Network Economics (WINE), pages 268–279, 2009.
13. Noga Alon, Yuval Emek, Michal Feldman, and Moshe Tennenholtz.  
[Adversarial Leakage in Games.](#)  
In Proceedings of the 1<sup>st</sup> Symposium on Innovations in Computer Science (ICS), pages 111–119, 2010.
14. Shiri Chechik, Yuval Emek, Boaz Patt-Shamir, and David Peleg.  
[Sparse Reliable Graph Backbones.](#)  
In Proceedings of the 37<sup>th</sup> International Colloquium on Automata, Languages and Programming (ICALP, track C), pages (2):261–272, 2010.
15. Noga Alon, Yuval Emek, Michal Feldman, and Moshe Tennenholtz.  
[Bayesian Ignorance.](#)  
In Proceedings of the 29<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 384–391, 2010.
16. Yuval Emek, Magnus M. Halldorsson, Yishay Mansour, Boaz Patt-Shamir, Jaikumar Radhakrishnan, and Dror Rawitz.  
[Online Set Packing and Competitive Scheduling of Multi-Part Tasks.](#)  
In Proceedings of the 29<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 440–449, 2010.  
*(Invited to PODC 2010's special issue in DistComp.)*
17. Yuval Emek and Amos Korman.  
[Efficient Threshold Detection in a Distributed Environment.](#)  
In Proceedings of the 29<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 183–191, 2010.
18. Noga Alon, Yuval Emek, Michal Feldman, and Moshe Tennenholtz.  
[Economical Graph Discovery.](#)  
In Proceedings of the 2<sup>nd</sup> Symposium on Innovations in Computer Science (ICS), pages 476–486, 2011.
19. Yuval Emek, Amos Korman, and Yuval Shavitt.  
[Approximating the Statistics of various Properties in Randomly Weighted Graphs.](#)  
In Proceedings of the 22<sup>nd</sup> ACM-SIAM Symposium on Discrete Algorithms (SODA), pages 1455–1467, 2011.
20. Yuval Emek, Ron Karidi, Moshe Tennenholtz, and Aviv Zohar.  
[Mechanisms for Multi-Level Marketing.](#)  
In Proceedings of the 12<sup>th</sup> ACM Conference on Electronic Commerce (EC), pages 209–218, 2011.

21. Yuval Emek, Pierre Fraigniaud, Amos Korman, Shay Kutten, and David Peleg.  
[Notions of Connectivity in Overlay Networks](#).  
In Proceedings of the 19<sup>th</sup> International Colloquium on Structural Information and Communication Complexity (SIROCCO), pages 25–35, 2012.
22. Yuval Emek, Michal Feldman, Iftah Gamzu, Renato Paes Leme, and Moshe Tennenholtz.  
[Signaling Schemes for Revenue Maximization](#).  
In Proceedings of the 13<sup>th</sup> ACM Conference on Electronic Commerce (EC), pages 514–531, 2012.
23. Yuval Emek, Magnus M. Halldorsson, and Adi Rosen.  
[Space-Constrained Interval Selection](#).  
In Proceedings of the 39<sup>th</sup> International Colloquium on Automata, Languages and Programming (ICALP, track A), pages (1)302–313, 2012.
24. Yuval Emek and Roger Wattenhofer.  
[Stone Age Distributed Computing](#).  
In Proceedings of the 32<sup>nd</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 137–146, 2013.
25. Yuval Emek and Roger Wattenhofer.  
[Frequency Hopping against a Powerful Adversary](#).  
In Proceedings of the 27<sup>th</sup> International Symposium on Distributed Computing (DISC), pages 329–343, 2013.
26. Yuval Emek and Adi Rosen.  
[Semi-Streaming Set Cover](#).  
In Proceedings of the 41<sup>st</sup> International Colloquium on Automata, Languages and Programming (ICALP, track A), pages (1)453–464, 2014.
27. Yuval Emek, Jochen Seidel, and Roger Wattenhofer.  
[Computability in Anonymous Networks: Revocable vs. Irrevocable Outputs](#).  
In Proceedings of the 41<sup>st</sup> International Colloquium on Automata, Languages and Programming (ICALP, track B), pages (2)183–195, 2014.
28. Yuval Emek, Tobias Langner, Jara Uitto, and Roger Wattenhofer.  
[Solving the ANTS problem with Asynchronous Finite State Machines](#).  
In Proceedings of the 41<sup>st</sup> International Colloquium on Automata, Languages and Programming (ICALP, track C), pages (2)471–482, 2014.
29. Yuval Emek, Christoph Pfister, Jochen Seidel, and Roger Wattenhofer.  
[Anonymous Networks: Randomization = 2-Hop Coloring](#).  
In Proceedings of the 33<sup>rd</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 96–105, 2014.

30. Yuval Emek, Tobias Langner, David Stolz, Jara Uitto, and Roger Wattenhofer.  
[How Many Ants Does It Take To Find the Food?](#)  
In Proceedings of the 21<sup>st</sup> International Colloquium on Structural Information and Communication Complexity (SIROCCO), pages 263–278, 2014.  
*(Invited to SIROCCO 2014’s special issue in TCS.)*
31. Yuval Emek, Tobias Langner, and Roger Wattenhofer.  
[The Price of Matching with Metric Preferences.](#)  
In Proceedings of the 23<sup>rd</sup> Annual European Symposium on Algorithms (ESA), pages 459–470, 2015.
32. Yuval Emek, Shay Kutten, and Roger Wattenhofer.  
[Online Matching: Haste makes Waste!](#)  
In Proceedings of the 48<sup>th</sup> ACM Symposium on Theory of Computing (STOC), pages 333–344, 2016.
33. Yuval Emek and Jara Uitto.  
[Dynamic Networks of Finite State Machines.](#)  
In Proceedings of the 23<sup>rd</sup> International Colloquium on Structural Information and Communication Complexity (SIROCCO), pages 19–34, 2016.  
*(Invited to SIROCCO 2016’s special issue in TCS.)*
34. Lihi Cohen, Yuval Emek, Oren Louidor, and Jara Uitto.  
[Exploring an Infinite Space with Finite Memory Scouts.](#)  
In Proceedings of the 28<sup>th</sup> ACM-SIAM Symposium on Discrete Algorithms (SODA), pages 207–224, 2017.
35. Yuval Emek, Yaacov Shapiro, and Yuyi Wang.  
[Minimum Cost Perfect Matching with Delays for Two Sources.](#)  
In Proceedings of the 10<sup>th</sup> International Conference on Algorithms and Complexity (CIAC), pages 209–221, 2017.  
*(Invited to CIAC 2017’s special issue in TCS.)*
36. Yakov Babichenko, Yuval Emek, Michal Feldman, Boaz Patt-Shamir, Ron Peretz, and Rann Smorodinsky.  
[Stable Secretaries.](#)  
In Proceedings of the 18<sup>th</sup> ACM conference on Economics and Computation (EC), pages 243–244, 2017.
37. Sebastian Brandt, Yuval Emek, Jara Uitto, and Roger Wattenhofer.  
[A Tight Lower Bound for the Capture Time of the Cops and Robbers Game.](#)  
In Proceedings of the 44<sup>th</sup> International Colloquium on Automata, Languages and Programming (ICALP, track A), pages 82:1–82:13, 2017.



38. Shimon Bitton, Yuval Emek, and Shay Kutten.  
[Efficient Jobs Dispatching in Emerging Clouds.](#)  
In Proceedings of the IEEE International Conference on Computer Communications (INFOCOM), pages 2033–2041, 2018.
39. Yuval Emek, Shay Kutten, Ron Lavi, and Yangguang Shi.  
[Approximating Generalized Network Design under \(Dis\)economies of Scale with Applications to Energy Efficiency.](#)  
In Proceedings of the 50<sup>th</sup> ACM Symposium on the Theory of Computing (STOC), pages 598–606, 2018.
40. Yehuda Afek, Yuval Emek, and Noa Kolikant.  
[Selecting a Leader in a Network of Finite State Machines.](#)  
In Proceedings of the 32<sup>nd</sup> International Symposium on Distributed Computing (DISC), pages 4:1–4:17, 2018.
41. Yehuda Afek, Yuval Emek, and Noa Kolikant.  
[The Synergy of Finite State Machines.](#)  
In Proceedings of the 22<sup>nd</sup> International Conference on Principles of Distributed Systems (OPODIS), pages 22:1–22:16, 2018.
42. Yossi Azar, Yuval Emek, Rob van Stee, and Danny Vainstein.  
[The Price of Clustering in Bin-Packing with Applications to Bin-Packing with Delays.](#)  
In Proceedings of the 31<sup>st</sup> ACM Symposium on Parallelism in Algorithms and Architectures (SPAA), pages 1–10, 2019.
43. Yuval Emek, Shay Kutten, Ron Lavi, and William K. Moses Jr.  
[Deterministic Leader Election in Programmable Matter.](#)  
In Proceedings of the 46<sup>th</sup> International Colloquium on Automata, Languages and Programming (ICALP, track C), pages 140:1–140:14, 2019.
44. Yuval Emek, Adam Goldbraikh, and Erez Kantor.  
[Online Disjoint Set Cover without Prior Knowledge.](#)  
In Proceedings of the 27<sup>th</sup> Annual European Symposium on Algorithms (ESA), pages 44:1–44:16, 2019.
45. Yuval Emek, Shay Kutten, Ron Lavi, and Yangguang Shi.  
[Bayesian Generalized Network Design.](#)  
In Proceedings of the 27<sup>th</sup> Annual European Symposium on Algorithms (ESA), pages 45:1–45:16, 2019.
46. Ruben Becker, Yuval Emek, Mohsen Ghaffari, and Christoph Lenzen.  
[Distributed Algorithms for Low Stretch Spanning Trees.](#)  
In Proceedings of the 33<sup>rd</sup> International Symposium on Distributed Computing (DISC), pages 4:1–4:14, 2019.

47. Shimon Bitton, Yuval Emek, Taisuke Izumi, and Shay Kutten.  
[Message Reduction in the LOCAL Model is a Free Lunch.](#)  
In Proceedings of the 33<sup>rd</sup> International Symposium on Distributed Computing (DISC), pages 7:1–7:15, 2019.
48. Yuval Emek, Noga Harlev, and Taisuke Izumi.  
[Towards Distributed Two-Stage Stochastic Optimization.](#)  
In Proceedings of the 23<sup>rd</sup> International Conference on Principles of Distributed Systems (OPODIS), 32:1–32:16, 2019.
49. Ruben Becker, Yuval Emek, and Christoph Lenzen.  
[Low Diameter Graph Decompositions by Approximate Distance Computation.](#)  
In Proceedings of the 11<sup>th</sup> Conference on Innovations in Theoretical Computer Science (ITCS), pages 50:1–50:29, 2020.
50. Yuval Emek and Yuval Gil.  
[Twenty-Two New Approximate Proof Labeling Schemes.](#)  
In Proceedings of the 34<sup>th</sup> International Symposium on Distributed Computing (DISC), pages 20:1–20:14, 2020.
51. Xavier Défago, Yuval Emek, Shay Kutten, Toshimitsu Masuzawa, and Yasumasa Tamura.  
[Communication Efficient Self-Stabilizing Leader Election.](#)  
In Proceedings of the 34<sup>th</sup> International Symposium on Distributed Computing (DISC), pages 11:1–11:19, 2020.
52. Yuval Emek, Ron Lavi, Rad Niazadeh, and Yangguang Shi.  
[Stateful Posted Pricing with Vanishing Regret via Dynamic Deterministic Markov Decision Processes.](#)  
In Proceedings of the 34<sup>th</sup> Conference on Neural Information Processing Systems (NeurIPS), 2020.
53. Yuval Emek, Shay Kutten, and Yangguang Shi.  
[Online Paging with a Vanishing Regret.](#)  
In Proceedings of the 12<sup>th</sup> Innovations in Theoretical Computer Science Conference (ITCS), pages 67:1–67:20, 2021.
54. Yuval Emek, Shay Kutten, Mordechai Shalom, and Shmuel Zaks.  
[Hierarchical b-Matching.](#)  
In Proceedings of the 47<sup>th</sup> International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM), pages 189–202, 2021.
55. Yuval Emek, Shay Kutten, Mordechai Shalom, and Shmuel Zaks.  
[Multicast Communications with Varying Bandwidth Constraints.](#)  
In Proceedings of the IEEE International Conference on Computer Communications (INFOCOM), pages 1–10, 2021.

56. Yuval Emek and Eyal Keren.  
[A Thin Self-Stabilizing Asynchronous Unison Algorithm with Applications to Fault Tolerant Biological Networks.](#)  
In Proceedings of the 40<sup>th</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 93–102, 2021.
57. Yuval Emek, Yuval Gil, and Shay Kutten.  
[Locally Restricted Proof Labeling Schemes.](#)  
In Proceedings of the 36<sup>th</sup> International Symposium on Distributed Computing (DISC), pages 20:1–20:22, 2022.
58. Yuval Emek, Yuval Gil, and Noga Harlev.  
[Design of Self-Stabilizing Approximation Algorithms via a Primal-Dual Approach.](#)  
In Proceedings of the 26<sup>th</sup> International Conference on Principles of Distributed Systems (OPODIS), pages 27:1–27:19, 2022.
59. Fabien Dufoulon, Yuval Emek, and Ran Gelles.  
[Beeping Shortest Paths via Hypergraph Bipartite Decomposition.](#)  
In Proceedings of the 14<sup>th</sup> Innovations in Theoretical Computer Science Conference (ITCS), pages 45:1–45:24, 2023.
60. Taisuke Izumi, Yuval Emek, Tadashi Wadayama, and Toshimitsu Masuzawa.  
[Deterministic Fault-Tolerant Connectivity Labeling Scheme.](#)  
In Proceedings of the 42<sup>nd</sup> ACM Symposium on Principles of Distributed Computing (PODC), pages 190–199, 2023.
61. Anne Condon, Yuval Emek, and Noga Harlev.  
[On the Runtime of Chemical Reaction Networks Beyond Idealized Conditions.](#)  
In Proceedings of the 29<sup>th</sup> International Conference on DNA Computing and Molecular Programming (DNA), pages 3:1–3:22, 2023.
62. Yuval Emek, Yuval Gil, Maciej Pacut, and Stefan Schmid.  
[Online Algorithms with Randomly Infused Advice.](#)  
In Proceedings of the 31<sup>st</sup> Annual European Symposium on Algorithms (ESA), pages 44:1–44:19, 2023.

**Ph.D. Thesis** (Weizmann Institute of Science): [Probabilistic Embeddings of Graphs.](#)