

CV of Shlomo Hoory

Date: August 1, 2023

A. Personal Details

Full name: Shlomo Hoory

Date of birth: 06/1965

Country of birth: U.S.A.

Date of immigration to Israel: 1969

Citizenship: Israel, USA

ID number: 012292678

Family status: Married + 3

Full home address: 10 Haagas St, Givat Ada, 37808

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B. Higher Education

- 1983-1986, B.Sc. cum laude in extended physics, mathematics, and computer science, from the Hebrew University Jerusalem, faculty of science, May 1987, Jerusalem.
- 1987-1990, M.Sc. cum laude in computer science from the Hebrew University Jerusalem, faculty of science, June 1991, Jerusalem.
- 1991-2001, Ph.D. in graph theory, supervised by prof. Nati Linial. From the Hebrew University Jerusalem, faculty of science, May 2003, Jerusalem.
- 2002-2004, postdoctoral fellow at the department of computer science, hosted by prof. Charles Rackoff, University of Toronto, Toronto.

- 2004-2006, postdoctoral fellow at the Pacific Institute of Mathematics and the Department of Computer Science, hosted by Prof. Joel Friedman, University of British Columbia, Vancouver.

C. Academic Appointments and Academic Administrative Positions in Institutions of Higher Education

D. Teaching

- 1991-2001 - Teacher assistant at the Hebrew University Jerusalem in numerous undergraduate and graduate level courses in the areas of algorithms, combinatorics, graph theory, error correcting codes, and more.
- 2003 - Teach a graduate level course on expander graphs at the University of Toronto, fall 2003.
- 2005 - Teach an undergrad algorithm design and analysis course at the University of British Columbia, Vancouver, fall 2005.
- 2020 - Teach an undergrad digital systems and logic design course at the Tel-Hai College, spring 2020.
- 2021 – Senior lecturer at Tel-Hai College, teaching the following:
 - Introduction to Systems Programming
 - Digital systems and Introduction to Computer Architecture
 - Principles of Programming Languages
 - The C++ Programming Language
 - Interview Questions Workshop

E. Supervision of Graduate Students

F. Research Grants

G. Awards and Fellowships

- Won the AMS Conant Prize for the best expository paper 2008, with Nathan Linial, and Avi Wigderson, for the paper titled Expander Graphs and their Applications, Bulletin of the American Mathematical Society, Vol 43, No 4, pp 439-561, 2006.

H. Active Participation in Conferences

- July 12-16, 2004, Shlomo Hoory, Avner Magen, Steve Mayers and Charles Rackoff, Simple permutations mix well, ICALP 2004, Turku, Finland.
- June 11, 2021, Shlomo Hoory, Amir Feder, Avichai Tandler, Alon Cohen, Sofia Erell, Itay Laish, Hootan Nakhost, Uri Stemmer, Ayelet Benjamini, Avinatan Hassidim, Yossi Matias, Learning and Evaluating a Differentially Private Pre-trained Language Model, Third Workshop on Privacy in Natural Language Processing, 2021, virtual conference.

I. Non-Academic Activity & Positions

- 1996-2001, Millimetrix Broadband Networks, founder and lead engineer.
- 2006-2008, IBM Haifa research lab at the machine learning group, staff member.
- 2008-2010, Syntact Design, founder and lead engineer.
- 2010-2012, St. Jude Medical (MediGuide), engineer at the algorithms group.
- 2012-2016, Small-cell research group at Qualcomm Israel, principal engineer.
- 2016-2018, Google Tel-Aviv networking team, engineer.
- 2018-2020, Google Research Tel-Aviv, researcher.

J. Attached Documents

- Doctorate, Master's, Bachelor's

K. Publications

M.Sc. thesis

- Universal sequences for expander graphs and contracting sequences, department of computer science, supervised by Prof. Avi Wigderson, June 1991, Jerusalem.

Ph.D. thesis

- On Graphs of High Girth, department of computer science, supervised by prof. Nati Linial, May 2003, Jerusalem.

Articles in refereed journals

1. Shlomo Hoory and Avi Wigderson, *Universal Traversal Sequences for Expander Graphs*, Information Processing Letters, vol. 46, 1993.
(SCImago Journal Rank 2019 indicator 0.48/Q2 with Hindex=73; citations=31)
2. Shlomo Hoory and Nathan Linial, *Central Points for Set in R^n (or: the Chocolate Ice-Cream Problem)*, Discrete and Computational Geometry 15, p.467-479, 1996.
(SCImago Journal Rank 2019 indicator 0.61/Q2 with Hindex=57; citations=0)
3. Shlomo Hoory, *The size of bipartite graphs with a given girth*, Journal of Combinatorial Theory Series B, 86(2), p.215-220, 2002.
(SCImago Journal Rank 2019 indicator 2.27/Q2 with Hindex=55; citations=65)
4. Alon Amit, Shlomo Hoory and Nathan Linial, *A Continuous Analogue of the Girth Problem*, Journal of Combinatorial Theory Series B, 84(2), p.340-363, 2002.
(SCImago Journal Rank 2019 indicator 2.27/Q2 with Hindex=55; citations=8)
5. Noga Alon, Shlomo Hoory and Nathan Linial, *The Moore bound for irregular graphs*, Graph and Combinatorics 18(1), p.53-57, 2002.
(SCImago Journal Rank 2019 indicator 0.61/Q2 with Hindex=34; citations=188)
6. Shlomo Hoory and Nathan Linial, *Colorings of the d -regular infinite tree*, Journal of Combinatorial Theory Series B, 91(2), p.161-167, 2004.
(SCImago Journal Rank 2019 indicator 2.27/Q2 with Hindex=55; citations=1)
7. Yonatan Bilu and Shlomo Hoory, *On Codes from Hypergraphs*, European Journal of Combinatorics, 25(3), p.339-354, 2004.
(SCImago Journal Rank 2019 indicator 1.14/Q1 with Hindex=45; citations=32)
8. Shlomo Hoory, Avner Magen, Steve Mayers and Charles Rackoff, *Simple permutations mix well*, Theoretical Computer Science 348(2-3): 251-261 (2005).
Also, in ICALP 2004.
(SCImago Journal Rank 2019 indicator 0.57/Q1 with Hindex=110; citations=13)
9. Shlomo Hoory and Stefan Szeider, *Computing Unsatisfiable k -SAT Instances with Few Occurrences per Variable*, Theoretical Computer Science 337(1-3), p.347-359, 2005. Also, in SAT 2004.
(SCImago Journal Rank 2019 indicator 0.57/Q1 with Hindex=110; citations=38)
10. Shlomo Hoory and Nathan Linial, *A counter example to a conjecture of Björner and Lovász on the χ -coloring complex*, Journal of Combinatorial Theory Series B,

- 95(2), p.346-349, 2005.
(SCImago Journal Rank 2019 indicator 2.27/Q2 with Hindex=55; citations=16)
11. Shlomo Hoory, *A lower bound on the spectral radius of the universal cover of a graph*, Journal of Combinatorial Theory Series B, 93(1), p.33-43, 2005.
(SCImago Journal Rank 2019 indicator 2.27/Q2 with Hindex=55; citations=27)
 12. Joshua Buresh-Oppenheim, Nicola Galesi, Shlomo Hoory, Avner Magen and Toniann Pitassi, *Rank Bounds and Integrality Gaps for Cutting Planes Procedures*, Theory of Computing (2): 65–90 (2006).
(SCImago Journal Rank 2019 indicator 0.68/Q2 with Hindex=81; citations=98)
 13. Shlomo Hoory and Stefan Szeider, *A Note on unsatisfiable k -CNF formulas with few occurrences per variable*, SIAM Journal on Discrete Mathematics 20(2), 523-528, 2006.
(SCImago Journal Rank 2019 indicator 0.92/Q1 with Hindex=59; citations=28)
 14. Shlomo Hoory, Nathan Linial, and Avi Wigderson, *Expander Graphs and their Applications*, Bulletin of the American Mathematical Society, Vol 43, No 4, pp 439-561, 2006. Won the AMS Conant Prize for the best expository paper 2008.
(SCImago Journal Rank 2019 indicator 0.67/Q2 with Hindex=55; citations=1677)
 15. Abraham D. Flaxman, Shlomo Hoory, *Maximum matchings in regular graphs of high girth*, Electronic Journal of Combinatorics, vol. 14(1), 2007.
(SCImago Journal Rank 2019 indicator 0.82/Q1 with Hindex=41; citations=19)
 16. Shlomo Hoory and Alex Brodsky, *Simple Permutation Mix Even Better*, Random Structures and Algorithms, vol. 32(3), p.274-289, 2008.
(SCImago Journal Rank 2019 indicator 0.95/Q1 with Hindex=58; citations=17)
 17. Alex Gamburd, Shlomo Hoory, Mehrdad Shahshahani, Aner Shalev and Bálint Virág, *The girth of random Cayley graphs*, Random Structures and Algorithms, vol 35(1), p.100-117, 2009.
(SCImago Journal Rank 2019 indicator 0.95/Q1 with Hindex=58; citations=55)
 18. Omer Bar-Ilan, Oded Fuhrmann, Shlomo Hoory, Ohad Shacham, Ofer Strichman, *Reducing the size of resolution proofs in linear time*, International Journal on Software Tools for Technology Transfer, vol. 13(3), p.263-272, 2011.
(SCImago Journal Rank 2019 indicator 0.37/Q3. with Hindex=52; citations=11)

19. Omer Angel, Joel Friedman and Shlomo Hoory, *The non-backtracking spectrum of the universal cover of a graph*, Transactions of the American Mathematical Society, vol 367 (6), p.4287-4318, 2015.
(SCImago Journal Rank 2019 indicator 2.02/Q1 with Hindex=83; citations=71)
20. Tzvika Hartman, Michael D. Howell, Jeff Dean, Shlomo Hoory, Ronit Slyper, Itay Laish, Oren Gilon, Danny Vainstein, Greg Corrado, Katherine Chou, Ming Jack Po, Jutta Williams, Scott Ellis, Gavin Bee, Avinatan Hassidim, Rony Amira, Genady Beryozkin, Idan Szpektor & Yossi Matias, *Customization scenarios for de-identification of clinical notes*. BMC Medical Informatics and Decision Making 20(14), 2020.
(SCImago Journal Rank 2019 indicator 0.91/Q1 with Hindex=68; citations=2)

Refereed conference proceedings

1. Joshua Buresh-Oppenheim, Nicola Galesi, Shlomo Hoory, Avner Magen and Toniann Pitassi, Rank Bounds and Integrality Gaps for Cutting Planes Procedures, IEEE Symposium on Foundations of Computer Science (FOCS), 2003.
2. Shlomo Hoory, Avner Magen and Toniann Pitassi, *Monotone circuits for the majority function*, Random 2006, Barcelona.
3. Omer Bar-Ilan, Oded Fuhrmann, Shlomo Hoory, Ohad Shacham, Ofer Strichman, *Linear-Time Reductions of Resolution Proofs*, Haifa Verification Conference (HVC), 2008, Haifa.
4. Elad Yom-Tov, Rachel Tzoref, Shmuel Ur, Shlomo Hoory, *Automatic Debugging of Concurrent Programs through Active Sampling of Low Dimensional Random Projections*, 23rd IEEE/ACM International Conference on Automated Software Engineering (ASE) 2008, L'Aquila, Italy.
5. Shlomo Hoory and Oded Margalit, *Finding the Rare Cube*, Algorithmic Learning Theory (ALT) 2008, Budapest.
6. Oded Fuhrmann, Shlomo Hoory, *On Extending Bounded Proofs to Inductive Proofs*, Computer Aided Verification (CAV) 2009, Grenoble.
7. Shlomo Hoory, Amir Feder, Avichai Tendler, Alon Cohen, Sofia Erell, Itay Laish, Hootan Nakhost, Uri Stemmer, Ayelet Benjamini, Avinatan Hassidim, Yossi Matias, *Learning and Evaluating a Differentially Private Pre-trained Language*

Model, Third Workshop on Privacy in Natural Language Processing (NAACL PrivateNLP), 2021, Virtual Conference.

8. Shlomo Hoory, Amir Feder, Avichai Tendler, Alon Cohen, Sofia Erell, Itay Laish, Hootan Nakhost, Uri Stemmer, Ayelet Benjamini, Avinatan Hassidim, Yossi Matias , *Learning and Evaluating a Differentially Private Pre-trained Language Model*, Conference on Empirical Methods in Natural Language Processing (EMNLP), 2021, Dominican Republic.

L. Miscellaneous

Patents:

1. 20090248601 - *Exploiting double resolutions for Proof optimizations*, October 1, 2009.
2. 20090254503 - *Method and System for Automated Expertise Extraction*, October 8, 2009.
3. 20110224817 - *Automatically solving a truck configuration problem*, September 15, 2011.
4. 20110010139 - *Utilizing an unSAT proof for model checking*, January 13, 2011.
5. 20130272592 - *System and Method for Registration of Fluoroscopic Images in a Coordinate System of a Medical System*, October 17, 2013.
6. 20180115968 - *Coherence based pre-decoding pruning for control channel processing*, April 26, 2018.

M. References

- Ofer Amrani, Dr., School of Electrical Engineering, Tel-Aviv University, ofera@tauex.tau.ac.il