

# CURRICULUM VITAE AND LIST OF PUBLICATIONS

March 2024

## Personal Details:

Name: Shlomi (Shlomo) Dolev.

Date and place of birth: 5/12/58, Israel. Regular military service: 13/2/77 to 12/8/80 (Captain). Address and telephone number at work: Department of Computer Science, Ben-Gurion University of the Negev, Beer-Sheva 84105, Israel, Tel: 08-6472718, Fax: 08-6477650, Email: dolev@cs.bgu.ac.il. Parent of: Noa, Yorai, Hagar and Eden.

**Short Biography:** Shlomi Dolev received his B.Sc. in Engineering and B.A. in Computer Science in 1984 and 1985, and his M.Sc. and D.Sc. in Computer Science in 1990 and 1992 from the Technion Israel Institute of Technology. From 1992 to 1995 he was at Texas A&M University as a visiting research specialist. In 1995 he joined the Department of Mathematics and Computer Science at Ben-Gurion University. Shlomi is the founding department head of the Computer Science Department at Ben-Gurion University, established in 2000. After just 15 (21, respectively) years, the department has been ranked among the first 150 (10, respectively) best departments in the world by Shanghai ranking (Emerging for best CS degree, respectively).

He is the author of a book entitled *Self-Stabilization*, published by MIT Press in 2000. His publications, more than three hundred and fifty conferences, journals, and patents, including papers in *JACM*, *SIAM journal on computing*, *Nature Photonics*, *Nature Communications*, *Physical Review*, *Journal of the Optical Society of America A*, *Distributed Computing*, *IEEE/ACM Trans. on Networking*, *ACM Trans. on Information and System Security*, *Journal of Cryptology*, *Journal of Computer and System Sciences*, *ACM Trans. on Knowledge Discovery from Data*, *ACM Trans. on Sensor Networks*, *ACM TOPLAS*, *Neural Computation*, *Neural Networks*, *Nanotechnology*, and alike. The publications are mostly in the areas of distributed computing, self-stabilization, cryptography, communication networks, machine learning, cybersecurity, brain science, nanotechnology, theoretical computer science, computer hardware, optical and quantum computing.

His list of hundreds of research collaborators includes *Jeffrey Ullman*, *Noga Alon*, *Nancy Lynch*, and *Adi Shamir*. Several agencies and companies support his research including ISF, NSF, IBM (faculty awards), EMC, Intel, Orange France, Deutsche Telekom, Israeli Ministries of Science, Economy, and Defense and the European Union in the sum of several millions of dollars. During his stay at Ben-Gurion, University Shlomi had visiting positions in several institutions, including MIT, Paris 11, Paris 6, and DIMACS. He served in more than a hundred program committees, chairing several, including the two leading conferences in distributed computing, DISC 2006, and PODC 2014. Served in transferring a one-workshop event to the SSS annual symposium as well as initiating the CSCML symposiums. Shlomi served and serves as an Associate Editor in several international journals, including the *IEEE Transactions on Computers* and *Theoretical Computer Sciences*. His research students more than ten PostDocs, over twenty Ph.D. students and over thirty MSc students, are positioned in Hi-Tech, including IBM, Microsoft, Google, and Academia.

Prof. Dolev holds the Ben-Gurion University Rita Altura trust chair in Computer Sciences. From 2011 to 2014, Prof. Dolev served as the Dean of the Natural Sciences Faculty at Ben-Gurion University of the Negev. Since 2010 he has served for six years, as the Head of the Inter-University Computation Center of Israel. He is a co-founder of *Secret Double Octopus* Ltd. 2015. He is also a co-founder of *Secret Sky (SecretSkyDB)* Ltd. 2017. In 2015 Shlomi was appointed as the steering committee head of the computer science discipline of the Ministry of Education of Israel, and in 2019 became a fellow of the European Alliance for Innovation, (EAI), and in 2020 became an IEEE Fellow. Prof. Dolev has been affiliated with the New Jersey Institute of Technology (NJIT) since 2023.

## **Education:**

Technion, Israel Institute of Technology, Haifa, Israel.

B.Sc. (Cum Laude), Civil Engineering, 1984.

B.A. (Cum Laude), Computer Science, 1985.

Received the Annual President's list award given for academic achievement, 1982,84.

Received the Annual dean's list award given for academic achievement 1981,83,85.

Accepted for M.Sc. degree by the graduate schools of the Technion and MIT.

M.Sc., Computer Science, 1990.

Advisors: Dr. Amos Israeli and Prof. Shlomo Moran.

Title of thesis: "Self Stabilization of Dynamic Systems Assuming Read Write Atomicity".

Received the Miriam and Aaron Gutwirth scholarship for M.Sc. studies, 1989.

Accepted for the Ph.D. degree by the graduate schools of the Technion and Stanford University.

D.Sc., Computer Science, 1992.

Advisors: Prof. Shlomo Moran and Dr. Amos Israeli.

Title of thesis: "Self Stabilization of Distributed Dynamic Systems".

## **Employment History (and visiting positions):**

2023- present: Affiliated Professor, New Jersey Institute of Technology.

2005- present: Tenured Professor, Ben-Gurion University of the Negev.

2000- (October) 2005: Tenured Associate Professor, Ben-Gurion University of the Negev.

1998-(April) 2000: Tenured Senior Lecturer, Ben-Gurion University of the Negev.

1997-(April) 1998: Senior Lecturer, Ben-Gurion University of the Negev.

1995-(April) 1997: Lecturer, Ben-Gurion University of the Negev.

February 2017: Visiting researcher, Computer Science Lab (CSL) of Stanford Research Institute (SRI) International, visiting Dr. Karim Eldefrawy.

March 2016: Visiting researcher, the Security and Privacy Research Department of Yahoo Labs, visiting Dr. Juan Garay.

Summer 2014: Visiting professor, Université Paris-sud, Paris 11, visiting Prof. Sylvie Delaet.

July 2011: Visiting professor, Université Paris-sud, Paris 11, visiting Prof. Joffroy Beauquier.

June 2009: Visiting Professor, LIP6, Paris 6, visiting Prof. Maria Gradinariu Potop-Butucaru.

April 2008: DIMACS Center for Discrete Mathematics & Theoretical Computer Science, visiting Dr. Juan Garay from Bell-Labs.

Summer 2005: Visiting scientist, MIT, with Prof. Nancy Lynch.

January 2005: Visiting scientist, Texas A&M University, visiting Prof. Jennifer Welch.

Summer 2004: Visiting scientist, MIT, with Prof. Nancy Lynch.

Summer 2003: Visiting scientist, MIT, with Prof. Nancy Lynch.

February 2003: Visiting Associate Professor, University of Texas, visiting Prof. Mohamed Gouda.

Summer 2002: Visiting Associate Professor, University of Iowa, visiting Prof. Ted Herman.

Summer 2002: Visiting scientist, Texas A&M University, with Prof. Jennifer Welch.

Summer 2000: Visiting scientist, MIT, with Prof. Nancy Lynch.

Summer 1999: Visiting scientist, Institute de Mathmatics, UNAM, with Prof. Sergio Rajsbaum.

Summer 1997: Visiting scientist, MIT, with Prof. Nancy Lynch.

Summer 1997: Visiting professor, Université Paris-sud, Paris 11, Laboratoire de Recherche en Informatique d'Orsay, visiting Prof. Joffroy Beauquier.  
Summer 1996: DIMACS Center for Discrete Mathematics & Theoretical Computer Science, visiting Dr. Rafail Ostrovsky from Bellcore.  
Summers 1994, 1995: Visiting research specialist with Prof. Evangelos Kranakis and Prof. Danny Krizanc, School of Computer Science, Carleton University.  
1992-1995: Visiting research specialist, Post-Doc of Prof. Jennifer L. Welch, Department of Computer Science, Texas A&M University.  
1987-1992: Research Assistant, Computer Science Department, Technion, Israel.  
1985-1987: Software Engineer, Texel-Electronic Ltd., Tel-Aviv, Israel.

### **Industrial Experience:**

2015-present: **Secret Double Octopus Ltd.**, co-Founder, Board Member, Chief Scientist Officer (2015-2020). Next-generation secure communication. <https://doubleoctopus.com/>  
2017: **Secret Sky (SecretSkyDB) Ltd.**, co-Founder. Next generation secure and private database <https://www.linkedin.com/company/secretskydb>.

### **Professional Activities:**

#### **(a) Positions in academic administration:**

1998-2000: Computer Science Coordinator and then the **head of the Computer Science Department**, Ben-Gurion University  
2000-2001: Head of the interfaculty school for computers and communication, Ben-Gurion Univ.  
2000-present: Head of the Hi-Tech Building Design Team  
2000-2006, 2015-2017: Appointment Committee, Department of Computer Science  
2001-2005: Appointment Committee, Faculty of Natural Sciences  
2002-2004: University Computing Policy Committee  
2002-present: University Distance Learning Committee  
2004-2008: Academic Israeli GRID, Steering Committee  
2004-2007: Israel Council for Higher Education, Teleprocessing Committee  
2004-2014, 2016-2022: Ben Gurion University Senate Member  
2004-2010: Ben Gurion University Senate Executive Committee  
2006-2008: Ben Gurion University, Head of the Computing Salary Increase Committee for the Managing and the Technical Staff  
2006-2012, 2014-2018: Head of the Lynne and William Frankel Center for Computer Science  
2010-2015 (six years): **Chairman of the Inter-University Computation Center of Israel**  
2011-2014: **Dean of the Faculty of Natural Sciences**  
2014-2020: Israel Council for Higher Education, Professor Highest Appointment Committee in Exact Sciences and Engineering  
2015-Present: **Steering Committee Head of the Computer Science Discipline of the Israeli Ministry of Education**  
2016-2020: Supreme Appointment Committee, Ben-Gurion University  
2018-present: Head of the Negev Hi-Tech Faculty Startup Accelerator at BGU

**(b) Editor of scientific professional journal:**

*Chicago Journal of Theoretical Computer Science*, Guest Editor, MIT Press, Special issue on Self-Stabilization, 1996.

*Journal of Aerospace Computing, Information, and Communication*, Associate Editor, American Institute of Aeronautics and Astronautics (AIAA), 2003-2012.

*Distributed Computing Journal*, Guest Editor, Special issue for DISC 2006.

*IEEE Transactions on Computers*, Associate Editor, 2007-2015.

*Theoretical Computer Science*, Guest Editor, Special issue on Stabilization, Safety and Security, 2008.

*Applied Optics and the Journal of the Optical Society of America A (JOSA A)*, Guest Editor, special feature on Optical High-Performance Computing, 2008.

*International Journal of Distributed Sensor Networks*, Taylor & Francis, Associate Editor, 2009-2010.

*Theoretical Computer Science*, Guest Editor, Special issue for Algosensors 2009.

*Wireless Networks*, (WINET), **Associate Editor**, 2010-present.

*Information and Computation*, Guest Editor, Special issue on Stabilization, Safety and Security, 2010.

*Journal on Self Computing*, World Scientific, Associate Editor, 2012-2013.

**Moderator of the Distributed and Parallel Computing area** in CoRR, the *Computing Research Repository* arXiv. 2014-present.

*PeerJ Computer Science*, **Associate Editor**, 2015-present.

*Theoretical Computer Science*, TCS-A, **Associate Editor**, 2022-present.

**(c) Membership in professional/scientific societies:**

1996-present, Senior Member, the Association for Computing Machinery

1997-present Fellow, the Institute of Electrical and Electronics Engineers

2003-2012, Member, American Institute of Aeronautics and Astronautics (AIAA)

**Educational activities:**

**(a) Course Taught:**

**Ben-Gurion University:** Communication Networks and Distributed Systems (mandatory for master studies), Data Structures (using a new book), Data Structures (using Cormen, Leiserson and Rivest), Introduction to Computer Science (first course that used Java), System Programming (videotaped), Self-Stabilizing Distributed Algorithms, Mathematical Models in Distributed Systems, Network Security, Graduate Seminar, Final Projects.

**Texas A&M University** 1993-4: Analysis of Algorithms, Structured Programming in Pascal.

**Technion:** Logic Design Laboratory, Logic Design course (1991, single lecturer, 100 students).

**4th, 5th and 6th International Summer Schools on Distributed Computing,**  
Courses on self-stabilization (invited),  
Sienna, Italy, June 1997, June 1999 and June 2001.

**MIT and Yale,** replaced Prof. Nancy Lynch and Prof. Michael Fischer (for two and one lecture, respectively), October 2003.

**DYNAMO, 2nd Training School on Algorithmic Aspects of Dynamic Networks,** Iceland, July 2008.

**Summer School on Distributed Computing and Cryptography** in the *17th International Symposium on Stabilization, Safety, and Security* (SSS 2015).

### **(b) Research Students and Visitors:**

Post Docs:

PstD1. Dr. Diab Abuaiadh (Ph.D. from University of Sydney, Australia), 1995.

PstD2. Dr. Stephane Messika (PhD from Ecole Normal Supérieure de Cachan, France), 2005.

PstD3. Dr. Guy Leshem (Ph.D. from Hebrew University), 2007.

PstD4. Dr. Olivier Peres (PhD from LRI Paris 11, France), 2008.

PstD5. Dr. Niv Gilboa, (Ph.D. from Technion), 2009-11.

PstD6. Dr. Andrei Dolgin (with Michael Segal and Ohad Ben-Shahar, Ph.D. from Technion), Ph.D. Technion, 2009.

PstD7. Dr. Ximing Li (Ph.D. from South China Agricultural University, China), 2012-3.

PstD8. Dr. Shimrit Tzur (Ph.D. from Hebrew University), 2013-5.

PstD9. Dr. Alexander Binun (PhD Friedrich-Wilhelm University of Bonn), 2013-present.

PstD10. Dr. Hillel Avni (Ph.D. from Tel-Aviv University), 2014.

PstD11. Dr. Yin Li (Ph.D. Shanghai Jiaotong University), 2014-2015.

PstD12. Dr. Muni Venkateswarlu K. (Ph.D. National Institute of Technology Karnataka), 2015-2017.

PstD13. Dr. Ram Prasad Narayanan (PhD BGU), 2020.

Ph.D. Students:

PhD1. Elad Schiller, Ph.D., (M.Sc. and Ph.D. candidacy exam, 2001) “Self-Stabilizing Group Communication,” (published 3 articles for the PhD), received Kreitman and The Council for Higher Education fellowships, submitted thesis August 2004. Postdoc with Nancy Lynch, Paul Spirakis, Sándor Fekete from September 2004. Now faculty member in the Computer Science and Engineering Department of Chalmers University, Sweden.

PhD2. Yinnon A. Haviv, Ph.D., “Self-Stabilizing Embedded Systems,” (published 3 articles for the Ph.D.), received Intel award, best teaching awards, and The Council for Higher Education

fellowship, submitted thesis October 2006. Now with Google.

PhD3. Ronen Kat, Ph.D., “Self-Stabilizing Distributed Storage Systems,” (published 3 articles for the Ph.D.), received the Intel award, and submitted the thesis in March 2007. Now with the IBM research center.

PhD4. Reuven Yagel, Ph.D., “Self-Stabilizing Operating Systems,” supported by Microsoft (published 4 articles for the Ph.D.), submitted thesis September 2007. Now with Jerusalem College of Engineering.

PhD5. Limor Lahiani, Ph.D., “Polygon Based Schemes for Sensor Networks,” received Intel award, (published 3 articles for the Ph.D.), submitted thesis April 2008. Now with Computer Science Industry.

PhD6. Nir Tzachar, Ph.D., “Self-Stabilizing and Self-Organizing Distributed Algorithms,” received support from the Israeli Grid organization and received the Intel award (published 3 articles and submitted 1 article for the Ph.D.), submitted thesis 2008. Now with the computer science industry.

PhD7. Olga Brukman, Ph.D., “Autonomic Recoverer,” (published 3 articles for the Ph.D.), received EuroSys support, 2005, and SOSP support 2007, submitted thesis 2008. Now with the computer science industry.

PhD8. Rami Puzis, “Optimization of Deployment Strategy for Distributed Electronic Threat Detection and Prevention Systems,” (together with Yuval Elovici, published five articles for the Ph.D.), supported by Deutsche Telekom, submitted thesis, in July 2009, and now a faculty member at Ben-Gurion University.

PhD9. Ofer Hermoni, “Anonymous Communication Networks,” (together with Eyal Felstaine/Yuval Elovici, published 3 articles for the Ph.D.), got Intel and Eshkol fellowships, submitted thesis, in December 2013, now in the computer science industry.

PhD10. Polina Zilberman, “Securing an Organization from External and Internal Cyber Attacks,” (together with Yuval Elovici, published four articles), supported by Deutsche Telekom, submitted thesis in November 2014, now in the computer science industry.

PhD11. Eyal Cohen “Nanotechnology Based Optical Computing,” (published 3 papers) submitted thesis May 2015. Supported by the Ministry of Science. Now in the computer science industry.

PhD12. Ariel Hanemann “Synthesized Holographic “Brain” Memory,” (published 3 papers for the Ph.D., submitted 1) submitted thesis in November 2015, now in the computer science industry. Supported by Kreitman scholarship for excellent Ph.D. students.

PhD13. Hadassa Daltrophe (with Zvi Lotker) “Big Data Abstraction: Exploration, Interpolation, and Extrapolation,” (published 3 papers for the Ph.D.) submitted thesis in November 2015, now faculty at Sami Shamoon College. Partially supported by ISF and the Ministry of Economy.

PhD14. Shantanu Sharma “Replication Aspects in Distributed Computing,” (Published 5 pa-

pers for the Ph.D.) submitted thesis in February 2016, a postdoc at UC Irvine. Now faculty at New Jersey Institute of Technology. Partially supported by Kreitman scholarship and EMC.

PhD15. Nisha Panwar (with Michael Segal) “Security Aspects in Vehicle Networks,” (Published 5 papers for the Ph.D.) submitted thesis in September 2016, a postdoc at UC Irvine. Now faculty at Augusta Univ. Partially supported by the Israeli Ministry of Economy.

PhD16. Dan Brownstein (with Niv Gilboa) “Security Techniques for Online and Broadcast Services,” (published two articles submitted 1 for the Ph.D.), supported by the Ministry of Science. Submitted thesis November 2018. Now in the computer science industry.

PhD17. Marina Sadetsky (with Danny Hendler) “Paging for Multi-Server Multi-Level Shared Caches,” (Published two articles submitted one for the Ph.D.), supported by EMC. Submitted thesis November 2018.

PhD18. Daniel Khankin “Algorithms, Techniques, and Applications for Virtual Networks,” (Published 3 articles for the Ph.D.), supported by the ministry of economy. Submitted thesis November 2018. Now in the computer science industry.

PhD19. Ram Prasad Narayanan “Energy Harvesting Nano Technology for Cancer Detection and Treatment” (Published two articles in journals and three in conference until Ph.D. submission) Supported by DFG and ABC. Submitted thesis December 2019. Now postdoc in Norway.

PhD20. Dor Bitan (with Dani Berend) “Statistically Secure Additions and Restricted Multiplications of Secret Shares,” (Presented 3 articles) Supported by the ministry of science. Submitted thesis Nov. 2020. Postdoc with Shafi Goldwasser, UC Berkeley.

PhD21. Philip Derbeko (with Ehud Gudes) “Concise Essence-Preserving Big Data Representations,” (published three articles in conferences, one in a journal, and two more submitted to journals) Submitted thesis Nov. 2020. Now in the computer science industry.

PhD22. Manish Kumar, “Proactive and Online Distributed Load Balancing,” (Published three articles), supported by the ministry of economy. Submitted thesis Nov. 2022. Now postdoc at Bar-Ilan University.

#### MSc Students:

MSc1. Dmitry Yukelson, M.Sc. “Guessing Games for Saving Energy in Mobile Environment,” January 1998. (published 1 article) Received Intel award, Now in Computer Science Industry.

MSc2. Alexander Kesselman, M.Sc. “Non-Preemptive Real-Time Scheduling of Multimedia Tasks,” (published two articles) May 1998. Received Intel award. Ph.D. in Computer Science from Tel-Aviv University, post-doc Max-Planck, and Industry.

MSc3. Olga Tubman, M.Sc. “Smooth and Adaptive Forward Erasure Correcting,” (published 1 article) July 2000. Now in Computer Science Industry.

MSc4. Galit Uzan, M.Sc. Internship (ESIM), Ecole Superieure des Ingenieurs de Marseilles and Luminy Technologies and Sciences University, “Magnifying Computing Gaps,” (published 1 article), 2003.

- MSc5. Lior Davidovitch, M.Sc., “Stability of Multi-value Long-Lived Consensus,” (published 1 article), May 2004. Ph.D. in Mechanical Engineering, Technion.
- MSc6. Ori Gersten, M.Sc., “Self-Stabilizing Active Tier Systems,” (published 1 article), January 2005. Now in Computer Science Industry.
- MSc7. Noam Singer, (with Amos Beimel), “Real-Time Oblivious Forward Erasure Correcting,” (published 1 article), May 2005. Now in Computer Science Industry.
- MSc8. Ronen Kat, (M.Sc. and Ph.D. candidacy exam, 2002) “Self-Stabilizing Distributed Storage Systems,” received Intel award 2002.
- MSc9. Marina Sadetsky, “Approximation Certificates for Hurestics,” (published one article), June 2007. Now in Computer Science Industry.
- MSc10. Hen Fitoussi, “Optical Solutions for Bounded NP Problems,” (published 1 article), received support from the Summer School on Algorithmic Data Analysis, November 2007. Now with Microsoft.
- MSc11. Limor Lahiani, (M.Sc. and Ph.D. candidacy exam, June 2004), “Polygon Based Schemes for Sensor Networks,” received the Intel award.
- MSc12. Nir Tzachar, (M.Sc. and Ph.D. candidacy exam, December 2005) “Self-Stabilizing and Self-Organizing Distributed Algorithms,” received support from the Israeli Grid organization.
- MSc13. Olga Brukman, (M.Sc and Ph.D. candidacy exam, March 2004) “Autonomic Recoverer,” received support from Deutsche Telekom.
- MSc14. Rami Puzis, “Optimization of Deployment Strategy for Distributed Electronic Threat Detection and Prevention Systems,” (M.Sc and Ph.D. candidacy exam, September 2007) received support from Deutsche Telekom.
- MSc15. Jonathan Goldfeld, “Efficient On-Line Detection of Temporal Patterns,” July 2012, (published 1 article), received support from Deutsche Telekom.
- MSc16. Nova Fandina, “Beyond NP-Hard on Average Instances and their Optical Solutions,” (published three articles) MSc exam, February 2012, supported by the Ministry of Science.
- MSc17. Polina Zilberman, “User Defined Firewall Filtering,” (together with Yuval Elovici, published 1 article until exam), MSc and Ph.D. candidacy exam, March 2010, supported by Deutsche Telekom.
- MSc18. Martin Kahil, “Stateless Stabilization Bootstrap,” (Published 2 articles), MSc exam, February 2015, Supported by Orange France.
- MSc19. Dan Brownstein (with Niv Gilboa) “Security Techniques for Online and Broadcast Services,” (published 1 article until exam), MSc and PhD candidacy exam, June 2015, supported by



the Ministry of Science.

MSc20. Amir Anter, “Optical Energy Efficient Asynchronous Automata and Circuits,” (published two articles), MSc exam, July 2016.

MSc21. Dor Bitan (with Dani Berend) “Statistically Secure Additions and Restricted Multiplications of Secret Shares,” (Presented 1 article in a conference until the exam) received Philippe Chaim Zebey prize for excellent research work, MSc and Ph.D. candidacy exam, March 2017.

MSc22. Amit Rokach (with Roman Manevich) “Programming Reflexes,” (Published poster in HVC and patent with IBM), Supported by IBM, exam, August 2017.

MSc23. Leonid Yankulin (with Ehud Gudes) “Self-Stabilizing Methods for Cloud Computing Components,” (Published 1 article), Supported by Orange, exam, April 2018.

MSc24. Amitay Shaer, “Bee’s Strategy Against Byzantines Replacing Byzantine Participants,” (Published 1 article), Supported by Ministry of Science, exam, August 2018.

MSc25. Maxim Amelchenko, “Blockchain Abbreviation, Implementing by Message Passing and Virtual Shared Memory,” (Published 1 article), exam, November 2018.

MSc26. Mohammad Ghanayim, “Relationship of Jaccard and Edit Distance in Malware Clustering and Online Identification,” (Published 1 article), Dean of natural science, the prize for excellence in research and studies, Supported by the ministry of science, exam, December 2018.

MSc27. Yuval Poleg “Efficient of database primitives in secret shared database” (published one article at a conference), exam, January 2020.

MSc28. Yotam Ashkenazi “Self-stabilizing Swarms in Spite of Byzantine Robots” (Published one article in a conference), exam, July 2020.

MSc29. Jiaqi Chen (Technion student with Shay Kutten) “Dynamic Proof Labeling Schemes for Interactive Online Distributed Algorithms,” (published one article in a conference), exam December 2020.

MSc30. Senia Kalma “Verifiable Computing Using Computation Fingerprint Within FHE,” (published one article in a conference), exam, April 2021.

MSc31. Matan Liber “Cryptographic Techniques for Stabilizing Blockchain” MSc and Ph.D. candidacy (Published 1 article in a conference until the exam) exam, June 2021.

MSc32. Stav Dollman “Implementing distributed automata using the Chinese remained” (published one article in a conference), exam, November 2021.

MSc33. Hannah Yair “Platoon Management” (published two papers in conferences, supported by the Israeli innovation authority) MSc exam, December 2022.

MSc34. Alexander Fok (supervised with Michael Segal) “Swarming with (Visual) Secret (Shared)

Mission” (published one paper in a conference), MSc exam, April 2023.

MSc35. Yaniv Kaleman “CRT for Saving Communication in Information Theoretical SMPC” (published one paper in a conference), MSc exam, May 2023.

MSc36. Arnon Ilani “Common Public Knowledge for Enhancing Machine Learning Data Sets” (published one paper in a conference), MSc exam, July 2023.

MSc37. Jaber Adnan “Scalable Video Coding for Satellite Video Multicast” (published one paper in a conference), MSc exam, December 2023.

MSc38. Erez Segev “Bloom Filter Lookup Table” (published one paper in a conference), MSc exam, January 2024.

Current Students:

PhD. Grisha Weintraub (with Ehud Gudes), “Optimizing Data Lakes Queries”, (published two articles in conferences until the exam) Ph.D. candidacy exam, December 2021.

PhD. Yotam Ashkenazi “Self-stabilizing Swarms in Spite of Byzantine Robots,” (Presented 1 article in a conference until the exam) Ph.D. candidacy exam, July 2020.

PhD. Matan Liber “Cryptographic Techniques for Stabilizing Blockchain” MSc and Ph.D. candidacy (Published 1 article in a conference until the exam) candidacy exam, June 2021.

PhD. Hannah Yair (with Ehud Gudes) “Algorithms for Vehicles and Platoon of Vehicles that are Remotely Driven” (published two papers in conferences until the exam, supported by the Israeli innovation authority, Rothschild, Smart Transportation Center) candidacy exam, December 2022.

PhD. Pawel Cyprys “Self Masking for Hardening Inversions,” (published one paper in conferences until the exam, supported by the Israeli innovation authority) candidacy exam, December 2022.

PhD. Alon Dankner (with Ehud Gudes) “Avatar PLC/SCADA: Cloud Half-Twin for Industrial Control Systems,”

PhD. Alexander Fok (supervised with Michael Segal) “Swarming with (Visual) Secret (Shared) Mission” (published one paper in a conference), MSc and Ph.D. candidacy exam, April 2023.

PhD. Yaniv Kaleman “Multiplicative Partially Homomorphic CRT Secret Sharing and Secure Computations Extensions” (published one paper in a conference), MSc and Ph.D. candidacy exam, April 2023.

PhD. Inessa Slavinskaya

MSc. Shir Buchner “Off Chain Zero Knowledge”

MSc. Avraham Yagudaev “Hash-Based Stateless Signature”

MSc. Ilan Kenis

### **Awards, Citations, Honors, Fellowships:**

Miriam and Aaron Gutwirth scholarship for M.Sc. studies, 1989.

Toman Foundation for Academic Excellence, \$7.3K, 1996.

Rita Altura Trust Chair in Computer Sciences, 2001-current.

IBM Faculty Award, \$20K 2001, \$20K 2002, \$10K 2003.

Consulting Prof. Jeffrey and Holly Ullman for establishing the Martha and Solomon Scharf Prize and research support of \$200K for BGU, 2006.

Teaching excellence award, Faculty of Natural Sciences, BGU, 2007.

Research excellence award, Faculty of Natural Sciences, BGU, \$10K, 2009.

Consulting Prof. Jeffrey Ullman for establishing support of \$50K for graduate international students at the Computer Science Department of BGU, 2013.

High-quality paper award, for five papers in IEEE-NCA 2014 and 2015, Cambridge MA.

Research excellence award, Faculty of Natural Sciences, BGU, 2015.

Consulting Prof. Jeffrey Ullman for a contribution a **million dollar** towards supporting BGU computer science building/faculty chair.

European Alliance for Innovation, (EAI), Fellow, from 2019.

The Institute of Electrical and Electronics Engineers, (IEEE), Fellow, from 2020.

Served as a member of the IEEE Fellow Evaluating Committee (Computer Society), 2021.

### **Scientific Publications:**

#### **(a) Authored book**

b1. Dolev, S., *Self-Stabilization*, the MIT Press, 208 pages, March 2000, ISBN 0-262-04178-2.

#### **Book chapters**

bc1. Dolev, S., Kopeetsky, M., Clouser, T., and Nesterenko, M., "Low Overhead RFID Security," *RFID Handbook: Applications, Technology, Security, and Privacy*, CRC Press, 2007.

bc2. Dolev, S., and Tzachar, N., "Self-Stabilizing and Self-Organizing Virtual Infrastructures for Mobile Networks," *Theoretical Aspects of Distributed Computing in Sensor Networks*, Springer, 2010.

bc3. Altshuler, Y., Dolev, S., and Elovici, Y., "TTLed Random Walks for Collaborative Monitoring in Mobile and Social Networks," *Handbook of Optimization in Complex Networks*, Springer, 2011.

bc4. Amaxilatis, D., Dolev, S., and Koninis, C., "Adaptable Network Infrastructure," *Distributed Self-organized Societies of Tiny Artifacts: Design & Implementation*, Lulu Publishers, ISBN 5800059245538, 2011.

bc5. Avni, H., Dolev, S., and Kosmas, E., "Proactive Contention Avoidance," *Transactional Memory: Foundations, Algorithms, Tools and Applications-COST Action Euro-TM IC1001*, 2014.

bc6. Dolev, S., “Overlay Security: Quantum-Safe Communication over the Internet Infrastructure,” *Modern Cryptography - Theory, Technology, Adaptation, and Integration*, IntechOpen, 2019.

bc7. Dolev, S., and Leshem, G., “Purifying Data by Machine Learning with Certainty Levels,” *Data Analysis and Optimization. In Honor of Boris Mirkins 80th Birthday*, Springer, 2023.

## (b) Edited volumes

e1. Dolev, S., *The Second Workshop on Self-Stabilizing Systems (WSS95)* 1995.

e2. Dolev, S., *The 20th International Symposium on Distributed Computing (DISC)*, September 18-20 2006, Springer LNCS 4167.

e3. Dolev, S., Haist, T., Oltean, M., *The First International Workshop on Optical Supercomputing (OSC)*, August 2008, Springer LNCS 5172.

e4. Dolev, S., *The Fifth International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS)*, July 2009, Springer LNCS 5804.

e5. Dolev, S., Oltean, M., *The Second International Workshop on Optical Supercomputing, (OSC)* November 2009, Springer LNCS 5882.

e6. Dolev, S., Cobb, J., Fischer, M., Yung, M., *The 12th International Symposium on Stabilization, Safety, and Security, (SSS)* September 2010, Springer LNCS 6366.

e7. Dolev, S., Oltean, M., *The Third International Workshop on Optical Supercomputing, (OSC)* 2010), Springer LNCS 6748.

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**(e) Unrefereed professional articles and review publications:**

u1. Dolev, S., “Workshop Report, Second Workshop on Self-Stabilizing Systems,” *SIGACT news*, Vol. 26 No. 3, Sept. 1995, pp. 74-76.

u2. Dolev, S., **Invited Paper**, “Stabilizing in the Presence of Faults, the Digital Clock Synchronization Case,” *Proc. of the 1997 International Conference On Principles Of Distributed Systems*, OPODIS’97, Dec. 1997, pp. 285-291.

u3. Dolev, S., “Self Stabilization,” editorial,  
*AIAA Journal of Aerospace Computing, Information, and Communication (JACIC)*, Vol. 1, pp. 253-255, June 2004.

u4. Aspnes, J., Busch, C., Dolev, S., Fatourou, P., Georgiou, C., Shvartsman, S., Spirakis, P., Wattenhofer, R., “Eight Open Problems in Distributed Computing,” *Distributed Computing Column of EATCS Bulletin*, Edited by Mario Mavronicolas, September 2006.

u5. Dolev, S., Haviv, Y., **Invited Paper**, “Stabilization Enabling Technology,” *Proc. of the 8th International Symposium on Stabilization, Safety, and Security of Distributed Systems*, (SSS 2006), LNCS 4280, pp. 1-15, 2006.

u6. Dolev, S., “A Review of the DISC 2006 Conference,” *SIGACT news*, Vol. 38 No. 1, March. 2007, pp. 46-48.

u7. Brukman, O., Dolev, S., Haviv, Y., Lahiani, L., Kat, R., Schiller, E., Tzachar, N., Yagel, R., “Self-Stabilization from Theory to Practice,” *Distributed Computing Column of EATCS Bulletin*, Edited by Mario Mavronicolas, February 2008.

u8. Dolev, S., **Invited Paper**, “Self-Stabilizing and Self-Organizing Mobile Networks,”  
*5th ACM/SIGMOBILE Workshop on Foundations of Mobile Computing*, (DIALM/POMC), pp. 25-26, 2008.

u9. Dolev, S., Schiller, E., Spirakis, P., Tsigas, P., **Invited Paper**, “Strategies for Repeated Games with Subsystem Takeovers, Implementable by Deterministic and Self-Stabilizing Automata,” *8th MiNEMA Workshop*, 2008.

u10. Dolev, S., Gilbert, S., Guerraoui, R., Kowalski, D., Newport, C., Kohn, F., Lynch, N., “Reliable Distributed Computing on Unreliable Radio Channels,” *Proc. of MobiHoc S<sup>3</sup> Workshop*, pp. 1-4, 2009.

u11. Dolev, S., Garay, J., Gilboa, N., Kolesnikov, V. **Invited Paper**, “Swarming Secrets,” *47th Annual Allerton Conference on Communication, Control, and Computing*, pp. 1438-1445, 2009. Also brief announcement in PODC pp. 231-232, 2010.

- u12. Dolev, S., Haist, T., Oltean, M., “Introduction to a special issue on Optical SuperComputing,” *Natural Computing* 9(4): pp. 889-890, 2010.
- u13. Dolev, S., Schiller, E., Spirakis, P., and Tsigas, P., “Robust and Scalable Middleware for Selfish-Computer Systems,” *Computer Science Review*, 5(1), pp. 69-84, 2011. Special issue on Foundations of Adaptive Networked Societies of Tiny Artifacts, Elsevier.
- u14. Blundo, C., De Caro, A., Dolev, S., Gilboa, N., Kopeetsky, M., Persiano, G. and Spirakis, P., “Innovative Approaches for Security of Small Artifacts,” *Computer Science Review*, 5(1), pp. 47-55, 2011. Special issue on Foundations of Adaptive Networked Societies of Tiny Artifacts, Elsevier.
- u15. Dolev, S., “Dynamic Multi-Party Computation Forever for Swarm & Cloud Computing & Code Obfuscation (Keynote Abstract),” *Seventh International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS)*, July 2011.
- u16. Dolev, S., Krzwiecki, L., Panwar, N., and Segal, M., “Certificating Vehicle Public Key with Vehicle Attributes: A (periodical) Licensing Routine, Against Man-in-the-Middle Attacks and Beyond,” *Workshop on Architecting Safety in Collaborative Mobile Systems (ASCoMS)*, 2013.
- u17. Dolev, S., “Practically Stabilizing and Secure Replicated State Machines,” *Proc. of the 15th International Symposium on Stabilization, Safety, and Security of Distributed Systems*, (SSS 2013), 2013.
- u18. Dolev, S., Hanemann, A., “Holographic “Brain” Memory and Computation,” *Proc. of the OSA Latin America Optics & Photonics Conference (LAOP)*, Nov. 2014.
- u19. Dolev, S., Rahav, A., and Tzur-David, S., “The Need for Next Generation Secure Communication,” *Cyber Security Review*, pp. 54-60, Oct. 2015.

### **Patents:**

- p1. Dolev, S., and Nir, Y., “Optical Implementation of Bounded Non-Deterministic Turing Machines,” Israeli patent application No. 155994, filed 19 May 2003.  
US Patent No. 7,130,093 B2, October 2006.
- p2. Dolev, S., Korach, E., and Uzan, G., “A Method for Encryption and Decryption of Messages,” US Patent 20090296931, 9008311, filed 23/6/05, 2015.
- p3. Dolev, S., Haviv, Y., “Apparatus and Methods for Stabilization of Processors, Operating Systems and Other Hardware and/or Software Configurations,” US patent application, US 2008/0098205 A1, September 2007.
- p4. Dolev, S., Kopeetsky, M., Shamir, A., “Method, Apparatus, and Product for Authentication,” US20090225985, 2009.

- p5. Puzis, R., Elovici, Y., Dolev, S., “Process for Finding the Most Prominent Group of Vertices in Complex Networks,” European Patent EP1887744, 2010, application, P07015351.5-1249, 16.4.07.
- p6. Puzis, R., Elovici, Y., Dolev, S., “Optimal Deployment of Infection Detection Systems over a Data Network,” European Patent application, 10.8.06.
- p7. Dolev, S., “Dynamic Firewall for NSP Networks,” USA Patent, 7,808,911 B2, Oct. 5, 2010. EP1959630, 2008, US 2008/0212481 A1, Sep. 4, 2008.
- p8. Dolev, S., Tzachar, N., “Malware Signature Builder and Detection for Executable Code,” European patent EP2189920, 2010, application 09014289.4 priority, 17.11.08.
- p9. Dolev, S., Kopeetsky, M., “Anonymous Transactions in Computer Networks,” EP 2 271 044 A3, priority 2009, publication 2011.
- p10. Dolev, S., Frenkel, S., “A Way of Encoding and Decoding of Digital Data Based on Digital Holography Principles,” Priority number 2010145892, 11.11 2010 Russian Federal Service of Intellectual Properties and Patents.
- p11. Altshuler, Y., Elovici, Y., Dolev, S., Shabtai, A., Fledel, Y., “Collaborative System for Protecting Against the Propagation of Malwares in a Network,” US 2011/0113491 A1, May 12, 2011.
- p12. Dolev, S., Kopeetsky, M., Mimran, D., “Avatar Process for Mobile Devices,” Israeli patent application, EP 2696608 A2, Priority 2012, Publication 2014.
- p13. Dolev, S., Gilboa, N., Kopeetsky, M., “A method for attribute-based broadcast encryption with permanent revocation,” WO 2013027206 A1, 9413528 8/9/16, priority Aug. 2011.
- p14. Dolev, S., Gilboa, N., Hermomi, O., “Digital Arbitration,” U.S. Patent 8868903 13/648,787 21/10/14, filed 10/10/12.
- p15. Dolev, S., Gilboa, N., Li, X., “Accumulating Automata and Cascaded Equations Automata,” WO 31085-WO-13.
- p16. Dolev, S., Tzur-David, S., “A Method for Establishing a Secure Private Interconnection over a Multipath Network,” International Application No. PCT/IL2015/050528 WO 2015177789A8, 10356054.
- p17. Dolev, S., Panwar, N., Segal, M., Krzywiecki, L., “Certificating Vehicle Public Key with Vehicle Attributes,” Patent 9769658, 19/9/17 filed 20/6/14.
- p18. Dolev, S., Tzur-David, S., and Tettleman, C., “Method and System for Authenticating and Preserving the Integrity of Communication, Secured by Secret Sharing,” PCT International application, PCT/IL2016/050209, 10536269, priority Feb. 2015.

- p19. Dolev, S., and Li, Y., “Secret Shared Random Access Machine,” PCT International application, PCT/IL2016/050044, priority January 2015.
- p20. Dolev, S., Rokach, A., Manevich, R., “Methods and System for Testing and Checking the correctness of a Computer Program During Runtime,” US Patent US 10,949,326, 16/3/21 priority 4/10/17.
- p21. Dolev, S., Berend, D., Kogan-Sadetsky, M., “Method and System for Performing Adaptive Cache Management,” US 20200210349A1, Filed Dec. 30, 2019, US Patent 11,106601, Aug. 31, 2021.
- p22. Bitan, D., Berend, D., Dolev, S., “One-Round Secure Multiparty Computation of Arithmetic Streams and Evaluation of Functions,” 0210167946, Filed April 14, 2019.
- p23. Brownstein, D., Dolev, S., Gilboa, N., “Method and System for Performing Broadcast Encryption with Revocation Capabilities,” PCT filed 2018, US Patent 11,215,954 Feb. 15, 2022.
- p24. Dolev, S., Tzur-David, S., Tetelman, C., Lavi, A., Rahav, A., Rafaeli, R., “System and Method for Securing a Communication Channel,” US Patent 11,170094, Jan. 26, 2017.
- p25. Dolev, S., Shiponi, L., “System and Method for Validating an Entity,” US Patent 11,233637, Jan. 25, 2022.
- p26. Dolev, S., Tzur-David, S., Tetelman, C., Lavi, A., Rahav, A., “System and Method for Securing a Communication Channel,” US Patent 11,388174, Feb. 28, 2017.
- p27. Berend, D., Bitan, D., Dolev, S., “System and Method for Performing Information-Theoretically Secure Quantum Gate Computation and Quantum Key Distribution, Based on Random Rotation of Qubits,” Application 20220231844, May 19, 2022.
- p28. Dolev, S., “System and Method for Merkle Puzzles Symmetric Key Establishment and Generation of Lamport Merkle Signatures,” Application 20190140819, Nov. 8, 2017.
- p29. Dolev, S., “Self-stabilizing Secure and Heterogeneous Systems,” US Patent, 11,128446, Sept. 21, 2021.
- p30. Dolev, S., Dolev, H., “The Generation Of One Way Functions, Based On Mutual Hiding Predefined Success Criteria” PCT 18/014,107, 20230269073, publication 2023.
- p31. Dolev, S., Wang, Z., System and Method for Fast, Post-Quantum Blockchain Consensus 17/997,242, 20230186293, publication 2023.

## **Lectures and Presentations at Meetings and Invited Seminars:**

### **Invited Plenary Lectures at Conference Meetings**

Workshop on Parallel Algorithms **Presentation of a Survey**, May 1996.

*17th International Conference on Architecture of Computing Systems (ARCS04)*, **Tutorial on Self-Stabilization**, 2004.

*8th Symposium on Self-Stabilizing Systems*, **Keynote Speaker**, November 2006.

*AutoMathA: from Mathematics to Applications*, Plenary Conference, Université of Liège, **Invited Lecturer**, June 2009.

*From Computer Science Research Frontiers*, **Plenary Talk for Computer Science Educators**, December 2009.

Jerusalem Symposium Software Engineering 2011, Jerusalem College of Engineering, **Plenary Guest Lecture**, August 2011.

*Seventh International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS)*, **Keynote Speaker**, September 2011.

*Proc. of the IEEE 27th Convention of Electrical and Electronics Engineers in Israel*, **Invited Lecturer**, November 2012.

TRANSFORM Summer School on Research Directions in Distributed Computing, **Invited Lecturer**, SRDC, June 2013.

*15th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2013)* **Tutorial on Practically Stabilizing and Secure Replicated State Machines**, 2013.

*6th Workshop on the Theory of Transactional Memory*, TransForm/EuroTM, WTTM, **Keynote Speaker**, July 2014.

*19th European Symposium on Research in Computer Security*, (ESORICS), **Invited Talk**, September 2014.

Academia and Industry Research Challenges for Network Virtualization Ecosystem, January 2016.

ALGO 2015, Special Event Honouring Paul Spirakis **Keynote Speaker**, September 2015.

Security and Privacy in a Data-Driven World, **Talk and Panel**, The Hive, RSA San-Francisco, March 2016.

*21st IEEE Workshop on Dependable Parallel, Distributed and Network-Centric Systems*, **Keynote Speaker**, May 2016.

Vivatechnology, Quantum computing, cryptography and our privacy, **Panel**, June 2017.

Annual Professional WordPress Conference, Ministry of Science Representative in the Cyber Security **Panel**, September 2017.

CyberTech, **Talk and Panel**, “Cyber Competences for a connected world awareness, information, training”, Rome, September 2017.

IBM Academic Days 2018, Universities as an engine of innovation, **Invited Talk**, Cambridge University, April 2018.

2nd Workshop on Self-organization in Swarm of Robots, November 2018.

CyberTech, Cyber in the Finance Sector, **Panel**, January 13th 2019.

CANDA-PDAA, the 11th international workshop on Parallel and Distributed Algorithms and Applications, November 25th, Nagasaki Japan.

National Cybersecurity Week, Distribution of Trust & Information avoiding a single point of failure, October 26th, Beer-Sheva, Israel.

Ghosh Gala: Celebrating 50 years as a Computer Scientist, Some thoughts on Sukumar’s contributions to self-stabilization research, December 11th, 2020.

SecureComm 2021, **Panel** on Privacy vs. Security Tradeoff, September 2021.

Secure Smart Region Congress, **Keynote** Post-Quantum Cryptography for Privacy and Security of the Internet, December 2021.

11th International Advanced Computing Conference, IACC-2021, **Keynote**, December 2021.

Leading Computer Science teachers retreat, Nir Etzion, *One Way Functions*, June 2022.

Confluence-2023: 13th International Conference on Cloud Computing, Data Science & Engineering, January 2023.  
 Consensus, BGU-Augusta collaboration conference, May 2023.  
 Post-Quantum Internet, tutorial, ICDCN, January 2024.  
 Post-Quantum Internet, Network Reliability in WSN for Agricultural Applications (Sponsored by Scheme for Promotion of Academic and Research Collaboration, SPARC, MHRD, Gol) January 2024.  
 One-Way Functions Candidates Based on Information Theoretical Secure Primitives, ICDCN, **keynote**, January 2024.

### Lectures in Conferences:

The *sixteenth Conference of Electrical and Electronics Engineers in Israel*, 1989.  
 The *9th Annual ACM Symp. on Principles of Distributed Computing*, 1990.  
 The *10th Annual ACM Symp. on Principles of Distributed Computing*, 1991.  
 The *5th International Workshop on Distributed Algorithms*, 1991.  
 The *12th Annual ACM Symp. on Principles of Distributed Computing*, 1993.  
 The *7th International Workshop on Distributed Algorithms*, 1993.  
*SPIE Conference on High-Speed Networking and Multimedia Computing*, 1994.  
 The *28th Hawaii International Conference on System Science*, 1995.  
 The *14th Annual ACM Symp. on Principles of Distributed Computing*, 1995.  
 The *Second Workshop on Self-Stabilizing Systems*, 1995.  
 The *27th ACM Symposium on Theory of Computing*, 1995.  
 The *15th Annual ACM Symp. on Principles of Distributed Computing*, 1996.  
 The *4th Israeli Symposium on Theory of Computing and Systems*, 1996.  
 The *16th Annual ACM Symp. on Principles of Distributed Computing*, 1997.  
 The *5th Israeli Symposium on Theory of Computing and Systems*, 1997.  
 The *3rd Workshop on Self-Stabilization, WSS'97*, 1997.  
 The *12th International Symposium on Distributed Computing*, 1998.  
*Eighteenth Annual Joint Conference of IEEE Computer and Communications Societies (IEEE INFOCOM'99)*, 1999.  
 The *19th Annual ACM Symp. on Principles of Distributed Computing*, 2000.  
 Dagstuhl-Seminar on Self-Stabilization, October 2000.  
 The *5th workshop on Self-Stabilization, WSS'01*, 2001.  
 The *21st IEEE Symposium on Reliable Distributed Systems (SRDS 2002)*, 2002.  
*Journées Internationales sur l'auto-stabilization, Centre International de Rencontres Mathématiques, CIRM, Luminy, France, October 2002.*  
 The *Second Jerusalem Parallel Distributed Programming Symposium (JPDPS) 2002*, Bar-Ilan University, October 2002.  
 Security 2003, Network and Access, Kfar Maccabiah Convention Center, December 2003.  
*Third International Conference on Fun with Algorithms (FUN2004)*, May 2004.  
*Banff International Research Station, Seminar on Self-Stabilizing Distributed Systems*, Oct. 2004.  
 Dagstuhl-Seminar on Anonymous Communication and its Applications, October 2005.  
 Second Seminar Artzi in Networking, April 2006.  
*8th Symposium on Self-Stabilizing Systems*, November 2006.  
*8th Symposium on Self-Stabilizing Systems, Panel member*, November 2006.  
*11th IEEE Meeting on Optical Engineering and Science in Israel*, March 2007.

*6th NASA Langley Formal Methods Workshop, (LFM) April 2008.*  
*5th ACM/SIGMOBILE Workshop on Foundations of Mobile Computing, (DIALM/POMC), August, 2008.*  
*First International Workshop on Optical Supercomputing, August 2008.*  
 Dagstuhl-Seminar on Fault-Tolerant Distributed Algorithms on VLSI Chips, September 2008.  
*The Annual ACM Symp. on Principles of Distributed Computing, 2009.*  
*47th Annual Allerton Conference on Communication, Control, and Computing, 2009.*  
*Second International Workshop on Optical Supercomputing, November 2009.*  
*The Annual ACM Symp. on Principles of Distributed Computing, 2010.*  
*The 24th International Symposium on Distributed Computing, (DISC) 2010.*  
*6th ACM/SIGMOBILE Workshop on Foundations of Mobile Computing, (DIALM/POMC), September 2010.*  
*Mobile Security Conference (MobSec), Herzliya, November 2010.*  
 PerAda Security, *Trust and Privacy Workshop*, Rome, November 2010.  
*Trends in Theoretical Cryptography (TTC), Beijing, January 2011.*  
 Fourth Seminar Artzi in Networking, March 2011.  
*14th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), October 2012.*  
*The 26th International Symposium on Distributed Computing, (DISC) 2012.*  
*5th Workshop on the Theory of Transactional Memory, TransForm/EuroTM, WTTM 2013.*  
*15th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), October 2013.*  
 The Taiwan-Israel Symposium on Information Security, Jerusalem, July 2014.  
 Distributed Software-Defined Networks Workshop, DSDN, July 2014.  
 Three papers at the *13th IEEE International Symposium on Network Computing and Applications (IEEE NCA14)*, August 2014.  
*16th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), October 2014.*  
*17th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), August 2015.*  
 Award talk *14th IEEE International Symposium on Network Computing and Applications (IEEE NCA)*, 2015.  
 Innovex2016, February 2016.  
 SMRLO2016, February 2016.  
 DevelopEx, September 2016.  
 Amdocs, Advisory meeting with academia on security challenges, September 2016.  
 6th Research Meeting on Distributed Computing by Mobile Robots, September 2016.  
 Workshop on Blockchain Technology and Theory, (BTT-DISC 2017), October 2017.  
 Three papers at the *16th IEEE International Symposium on Network Computing and Applications (IEEE NCA17)*, October 2017.  
 PODC 2018, Jennifer Jubilee, July 2018.  
 20th Intentional Symposium on Stabilization Safety and Security of Distributed Systems (SSS 2018), November 2018.  
 INFOCOM 2019, April 2019.  
 DISC 2019, October 2019.  
 SSS 2019, in memory of Ajoy K. Datta, October 2019.  
 GNN 2021, 3rd International Conference on Graphene and Novel Nanomaterials, August 2021.  
 Elta, Enigmatos, CISO gathering, Yavne, Cyber Security for Vehicles, March 2022.



Engineering Association, Quantum Internet, Dead Sea, August 2022.  
Israeli Smart Transportation Research Center Conference, ISTRC 2023, Ruppin College, June 2023.

### **Invited Seminars:**

IBM Watson, host Dr. Shay Kutten, August 1990.  
MIT, host Prof. Baruch Awerbuch, August 1990.  
IBM Almaden, host Dr. Yaron Wolfstahl, August 1990.  
AT&T Bell Labs, host Dr. Gadi Taubenfeld, August 1991.  
DEC Systems Research Center, host Dr. Leslie Lamport, August 1991.  
University of Texas at Austin, host Prof. Mohamed Gouda, February 1993.  
The University of Nevada Las Vegas, host Prof. Ajoy Kumar Datta, June 1993.  
IBM Watson, host Dr. Amir Herzberg, August 1993.  
Bell Core, host Dr. Brian Coan, August 1993.  
The University of Chicago, host Prof. Janos Simon, August 1993.  
University of California Los Angeles, host Prof. Eli Gafni, February 1994.  
The University of Chicago, host Prof. Janos Simon, March 1994.  
Carleton University, host Prof. Evangelos Kranakis, August 1994.  
University of Texas at Austin, host Prof. Mohamed Gouda, September 1994.  
The University of Houston, host Prof. Farokh B. Bastani, February 1995.  
Université de Paris-sud — Paris 11, LRI, Laboratoire de Recherche en Informatique d'Orsay, host Prof. Joffroy Beauquier, March 1996.  
Dagstuhl-Seminar on Time Services, March 1996.  
Tel-Aviv University, host Dr. Yishay Mansour, May 1996.  
Texas A&M University, host Prof. Jennifer Welch, May 1996.  
MIT, host Prof. Ron Rivest, April 1997.  
4th International Summer School on Distributed Computing, Siena, Italy, June 1997.  
The 1997 International Conference On Principles Of Distributed Systems, December 1997.  
Dagstuhl-Seminar on Self-Stabilization, August 1998.  
The University of Connecticut, host Prof. Alex Shvartsman, September 1998.  
5th International Summer School on Distributed Computing, Siena, Italy, June 1999.  
Institute de Mathmatics, UNAM, host Prof. Sergio Rajsbaum, Mexico, August 1999.  
New York University, host Prof. Zvi M. Kedem, September 1999.  
Wayne State University, host Prof. Frank Stomp, January 2000.  
Compaq Research Laboratory, host Dr. Mark Tuttle, January 2000.  
MIT, host Prof. Nancy Lynch, September 2000.  
Dagstuhl-Seminar on self-stabilization, October 2000.  
IBM Research Laboratory, Haifa, Host Dr. Ealan A. Henis, December 2000.  
IBM Research Laboratory, Haifa, Seminar on Active Technologies and Systems, organized by Dr. Opher Etzion, June 2002.  
The University of Iowa, host Prof. Ted Herman, October 2002.  
The University of California Berkeley, host Prof. Kathy Yelick, October 2002.  
Hong Kong University of Science and Technology, host Prof. Mordecai J. Golin, October 2002.  
New York University, host Prof. Zvi M. Kedem, February 2003.  
University of Texas at Austin, host Prof. Mohamed Gouda, February 2003.  
MIT, host Prof. Nancy Lynch, February 2003.  
Hebrew University, host Prof. Danny Dolev, April 2003.  
Jerusalem College of Engineering, host Dr. Iaakov Exman, May 2003.

Texas A&M University, host Prof. Jennifer Welch, June 2003.  
 MIT, host Prof. Nancy Lynch, October 2003.  
 Yale, host Prof. Michael Fischer and Prof. James Aspens, October 2003.  
 Ben-Gurion University, a ceremony in memory of Naftali Elkin, December 2003.  
 Technion, ClubNet, March 2003.  
 Université de Paris-sud — Paris 11, LRI, Laboratoire de Recherche en Informatique d’Orsay, host Prof. Joffroy Beauquier, March 2003.  
 Cornell, host Prof. Robbert Van Renesse, September 2004.  
 Tel-Aviv University, host Prof. Yossi Azar and Prof. Amos Fiat, December 2004.  
 Chalmers University of Technology, Sweden, host Prof. Marina Papatriantafidou, January 2005.  
 Texas A&M University, host Prof. Jennifer Welch, January 2005.  
 IBM Research Laboratory, Haifa, host Dr. Hillel Kolodner, April 2005.  
 Microsoft Research Cambridge UK, host Prof. Maurice Herlihy, July 2005.  
 Technical University Berlin, host Prof. Dr. Hans-Ulrich HeiB, September 2005.  
 Intel Research, Berkeley, host Dr. Petros Maniatis, August 2007.  
 Google Research, Mountain View, host Dr. Doug Orr, August 2007.  
 IIT Bombay, host Prof. Varsha Apte, December 2007.  
 HP Labs India, host Geetha Manjunath, December 2007.  
 HP India Bangalore, host Ramamurthy Badrinath, December 2007.  
 Bar-Ilan University, host Prof. Doron Peled, February 2008.  
 Hebrew University, hosts Dr. Sara Cohen and Prof. Dror Feitelson, in February 2008.  
 CTI, host Prof. Paul Spirakis, FRONTS, March 2008.  
 BGU Communication Systems Engineering, host Dr. Rachel Ben-Eliyahu-Zohary, March 2008.  
 MIT, host Prof. Nancy Lynch, April 2008.  
 Dagstuhl-Seminar on Fault-Tolerant Distributed Algorithms on VLSI Chips, September 2008.  
 Technion, ClubNet, December 2008.  
 Bertinoro, FRONTS, January 2009.  
 Ben-Gurion University, Alternative Computing Day, February 2009.  
 Google Zurich EMEA Faculty Summit, February 2009.  
 MIT, host Prof. Nancy Lynch, September 2009.  
 Bertinoro, November 2009.  
 High-School Computer Science Teachers Assembly at BGU, December 2009.  
 Universitat Politècnica de Catalunya (UPC), FRONTS, February 2010.  
 Bar-Ilan University, Engineering Faculty, April 2010.  
 Université de Paris-sud — Paris 11, LRI, Laboratoire de Recherche en Informatique d’Orsay, host Prof. Sylvie Delaet, July 2011.  
 Verisign Research Grant Symposium, October 2011.  
 Sapienza Università di Roma, host Andrea Vitaletti, November 2011.  
 Technion, ceClub, December 2011.  
 IBM Research Laboratory, Tel-Aviv branch of Haifa, host Dr. Ronen Kat, July 2012.  
 Scientist Night, Ben-Gurion University, September 2012.  
 EFI 2012, 3rd European Forum for Innovation, Lowering Barriers to Innovation: a Contribution from the “Start-up Nation”, December 2012.  
 New-Tech Exhibition, May 2013.  
 Center for Security Science and Technology (CSST), Technion, July 2013.  
 Technion, ceClub, March 2014.  
 Tel-Aviv University, EE Netalgs and GTACS Seminar, May 2014.  
 University of Chicago and Argonne National Laboratory, October 2015.

Computer Science and Robotics Conference, Inauguration of the Israeli elementary school computer science program, March 2017.  
 Telecom ParisTech, host Petr Kuznetsov, June 2017.  
 Leading Computer Science School Teachers Seminar, host Tami Lapidot, June 2017.  
 MIT, host Nancy Lynch, November 2017.  
 Boston University, host Ari Trachtenberg, November 2017.  
 Ministry of Science, Taiwan delegation meeting, November 2017.  
 The Inter-Center Cyber Conference, November 2017.  
 Seminar in Honor of Professor Shafi Goldwasser, November 2017.  
 Leading Computer Science School Teachers Seminar, host Tami Lapidot, December 2017.  
 Scientific Workshops in Information Safety: Theory, Practice and Applications French-Israel Symposium on Information Security, Tel-Aviv, March 2018.  
 Privacy as an Opportunity, Herzog Fox & Neemen event, March 2018.  
 Weizmann Institute of Science, host Zvika Brakerski, April 2018.  
 Google, host Alex Kesselman, April 2018.  
 The University of Sussex, host Winfried Hensinger, July 2018.  
 Visa research, host Mahdi Zamani, March 2019.  
 University of California, Irvine, host Sharad Mehrotra, March 2019.  
 140+ forum, January 2021.  
 MIT Media Lab, January 2021.  
 Photonics Israel, AEAI Association of Engineering Architects Israel, March 2021.  
 The 8th Privacy and Cyber Workshop, Edmond J. Safra Center for Ethics Tel Aviv University, April 2021.  
 NIJT-BGU Institute for Future Technologies, November 2021.  
 UM6P, Marocco, March 2023.  
 Leading Computer Science School Teachers Seminar, host Tami Lapidot, July 2023.  
 Princeton, Maria Apostolaki, September 2023.

### **Research Grants:**

- g1. (\*\*) A grant from the Ministry of Science, “Monitoring and Repairing in Distributed Systems,” \$40K, 1995-1998.
- g2. Intel Academic Grant, “Multiprocessor Network Interface for High-Speed Networks,” \$15K, 1996 \$15K in 1997 and \$25K in 1998.
- g3. Intel, equipment for research and projects laboratory, \$25K, 1996. (with Klara Kedem, Michael Elhadad and Michael Codish).
- g4. Wideband Communication MAGNET Consortium, “Content Description in High-Speed Network,” \$40K, 1997 (with Michael Elhadad).
- g5. (\*\*) Infrastructure Grant from the Ministry of Science, “Tbit/sec Optical ATM Communications Networks: Dynamic WDM Technology and Devices,” 47K, 100K, 40K Shekels, in 1997-8-9, respectively (with Dan Sadot, Moshe Tur, Amotz Bar Noy, Shay Kutten, Yaron Silberberg).
- g6. (\*\*) Grant from the Ministry of Science, Israel-India scientific cooperation, “Adaptive Correcting Codes for Multimedia Over ATM,” \$45K, 1998-1999 (with Kamala Krithivasan, Avraham

Melkman, C. Pandu Rangan).

g7. Ben-Gurion University, Seed grant, 20K Shekels, 1999.

g8. IBM Faculty Award, “Data Sharing Facility, Serverless Network File System,” \$40K, 2001-2003. “Self-Stabilizing Autonomic Recoverer,” \$10K, 2003-2004.

g9. (\*\*) NSF CCR-0098305, “Self-Stabilizing Group Communication for Mobile Environments,” consultant \$33K, 2001-2005 (with Jennifer Welch and Nancy Lynch).

g10. Israeli Defense Secretary (MAFAT), “Optical Solutions for TSP and Related Problems,” \$75K, 2002 (with Ephraim Korach and Joseph Rosen).

g11. STRIMM MAGNET Consortium, \$150K 2001-2003, (with Amos Beimel).

g12. Intel Academic Grant, “Optical Implementation of Combinatorial Bounded Non-Deterministic Turing Machines,” \$20K, 2004 (with Joseph Rosen).

g13. Deutsche Telekom, “Security for Information and Communication Technologies,” \$175K, 2004 (with Yuval Elovici and Ehud Gudes), \$100K, January 2005, \$125, March 2005.

g14. (\*\*) Ministry of Science and Technology, “Network of sensors based on “smart dust” concept,” 380K Shekels, May 2005-8 (with Shlomi Arnon and Yael Nemirovsky).

g15. Deutsche Telekom, “Netshield and Netprotect,” **3.6 Million Dollars**, June 2005 (with Yuval Elovici, Ehud Gudes and Yuval Shahar).

g16. Intel, “Multi-Core research and study,” \$10K, October 2006 (with Uri Abraham and Danny Hendler).

g17. Deutsche Telekom, “AAA,” \$120K, October 2006 (with Ehud Gudes and others).

g18. Nato Science for Peace and Security Programme, Collaboration Linkage Grant, \$25.9K for many (also non-Israeli) partners (with Guy Tel-Zur, and Hugo Guterman).

g19. (\*\*) 7<sup>th</sup> Framework Program – Information Communication Technologies (ICT) EC Ref. 215270, FRONTS, 200K Euro, 2007-2010.

g20. Intel, “Multi-Core lab,” \$20K, with Danny Hendler, November 2007.

g21. “Self-Stabilizing and Efficient Robust Uncertainty Management,” US Air Force, (Grant 083029 with Michael Segal and Ohad Ben-Shahar), \$35K 2008, \$55K 2009, \$55K 2010.

g22. “PC-Health,” \$15K, Microsoft, March 2009.

- g23. (\*\*) “Transactional Memories: Foundations, Algorithms, Tools, and Applications,” (Euro-TM) EU Cost, April 2010.
- g24. Deutsche Telekom, “Customer Data Leakage Prevention,” (with Yuval Elovici and others), 2008-2011.
- g25. Deutsche Telekom, “Privacy Keeper,” (with Bracha Shapira and others), 2008-2010.
- g26. Israeli Defense Secretary (MAFAT), “Sensor-data fusion,” \$55K, 2010 (with Asaf Choen and Guy Leshem).
- g27. Verisign 25th Anniversary of .COM grant, “Techniques for Achieving Positive Anonymity,” \$75K (one of four across the world) 2011.
- g28. (\*\*) A grant from the Ministry of Science bi-national Russia Israel, “Nanotechnology Based Optical Computing,” 144K Shekels, 2011-2013.
- g29. (\*\*) Israel Science Foundation (ISF), “Virtual Automata for Swarm Computing,” 187K Shekels, 2011-2015.
- g30. Deutsche Telekom, “BizDroid,” (with Bracha Shapira and others), 2011-2012.
- g31. Cabarnit Cyber security MAGNET Consortium, 252K Shekels, (with Asaf Cohen and Niv Gilboa) 2012-2014.
- g32. The Technion’s Institute for Future Defense Technologies Research named for the Medvedi, Shwartzman, and Gensler families, “Deterring attacks against critical IT infrastructure,” 80K Shekels, (with Niv Gilboa), 2012-2014.
- g33. Israeli Internet Association, “Deterring Attacks and Fraud in the Digital World,” 296K Shekels, (with Asaf Cohen and Niv Gilboa), 2012-2015.
- g34. EMC, “Adaptive techniques for efficient flash-based distributed storage,” (with Danny Hendler), 2013-present.
- g35. Orange France (France Telecom), “Self-Stabilizing Cloud Infrastructure,” 360k Euro, 2013-present.
- g36. (\*\*) Ministry of Science and Technology, Infrastructure Research in the Field of Advanced Computing and Cyber Security, “Dynamic Content Protection,” 600k Shekels, (with Niv Gilboa) 2013-present.
- g37. KAMIN, MAGNET, Ministry of Economy, “Private and Secure Storage in the Cloud,” 396k Shekels, (with Niv Gilboa), 2014-present.
- g38. Neptune MAGNET Consortium, (with Yefim Dinitz, Marina Kopeetsky, and Shimrit Tzur-David) 2014-present.

- g39. EMC, World Wide Hadoop Research, (with Ehud Gudes, Amnon Meiseles, Michal Ziv-Ukelson) 2014-present.
- g40. IBM, Analysis of Container Security, 120k Shekels, 2015-present.
- g41. Israel Prime Minister Office, BGU Cyber Center, “Security and Privacy for Perennial Cloud Computing,” (with Amos Beimel and Niv Gilboa), 600k Shekels, 2015-present.
- g42. Israeli-Italian Scientific & Technological Cooperation, EURASIA: “Ensuring Continuity of Replicated Software Services Under Cyber Attacks,” (with Roberto Baldoni), 2015-present.
- g43. Israel-Taiwan Scientific Research Cooperation, “Runtime Execution Introspection for Security Protection in Virtualized Cloud,” (with Yeali Sun), 2015-present.
- g44. DELLEMC, “Algorithms for Huge and Small cache,” \$60k, (with Danny Hendler), 2016-present.
- g45. Ministry of Science & Technology, Israel & the Japan Science and Technology Agency (JST), Japan. “Realization of Sustainable Autonomous Self-Organizing Systems by Low-Functional Robots in Environmental Disaster Recovery”, (with Fukuhito Ooshita), 2018-present.
- g46. DFG - Deutsche Forschungsgemeinschaft. “Algorithms for Programmable Matter in a Physiological Medium”, (with Christian Scheideler), 2018-present.
- g47. Genesis MAGNET Consortium, “Geographical Virtual Automata for Network Efficient Dynamic Management of LEO Satellites,” 2018-2022.
- g48. Andromeda MAGNET Consortium, 2020-present.
- g49. SATELITE, BGU-GILAT, “Scalable video Transmission over LEO satellite constellations”, 2022-Present.
- g50. (\*\*) Israel Science Foundation (ISF) (with Michael Segal), “Integrating ontologies in processing big data from the Internet of Things,” Shekels,  $4 \times 350k$ , 2022-2026.
- g51. SPARC cell, IIT Kharagpur, MHRD, Government of India (with Michael Segal) “Efficient water management in agricultural fields using mule based sensor networks,” travel and staying costs, 2023-2025.

**Additional Information:**

**Reviewer:**

*Clore Israel Foundation,*  
*NSERC Natural Sciences and Engineering Research Council of Canada,*

*IEEE Transactions on Information Theory*,  
*Ministry of Science and Technology Proposals*,  
*Mathematical Reviews*,  
*Journal of Aerospace Computing, Information, and Communication*,  
*Journal of High Speed Networks*,  
*Research Grants Council of Hong Kong*,  
*BSF Proposal*,  
*Acta Informatica*,  
*ACM Transactions on Computer Systems*,  
*Telecommunications Systems Journal*,  
*IEEE Transactions on Computers*,  
*The Israel Science Foundation*,  
*Journal of Computer and Systems Science*,  
*SIAM Journal on Computing*,  
*SIAM Journal on Discrete Mathematics*,  
*IEEE Transactions on Parallel and Distributed Systems*,  
*Information and Computation*,  
*Mathematical Systems Theory*,  
*Parallel Processing Letters*,  
*Chicago Journal of Theoretical Computer Science*,  
*Distributed Computing*,  
*Journal of Algorithms*,  
*Journal of Parallel and Distributed Systems*,  
*IEEE/ACM Transactions on Networking*,  
*IEEE Transactions on Software Engineering*,  
*Information Processing Letters*,  
*Theoretical Computer Science Award*,  
*Artificial Intelligence Journal*,  
*University Research Chair (URC) program Award*,  
*ACM Transactions on Algorithms*,  
*Reviewer for several conferences including PODC, WDAG/DISC, SSS, STOC, FOCS.*

### Scientific Committees at Conferences:

- sc1. *Symposium on Self-Stabilizing Systems*, **Steering committee** (1995-present), **chair 2012-2015**.
- sc2. *Second Workshop on Self-Stabilizing Systems* (WSS 1995), University of Nevada, Las Vegas, May 1995, **Program Chair**.
- sc3. *Seminar Artzi* — program and organization, December 1995.
- sc4. *5th Israeli Symposium on Theory of Computing and Systems*, Program committee member, (ISTCS 1997), June 1997.
- sc5. *16th Annual ACM Symp. on Principles of Distributed Computing*, Program committee member, (PODC 1997), August 1997.
- sc6. *3rd workshop on Self-Stabilizing Systems*, Program committee member, (WSS 1997), August 1997.

- sc7. *International Conference On Principles Of DIStributed Systems*, Program committee member, (OPODIS 1997), December 1997.
- sc8. *Dagstuhl-Seminar on Self-Stabilization*, program and organization, August 17-21, 1998.
- sc9. *International Conference on Principles Of DIStributed Systems*, Program committee member, (OPODIS 1998), December 1998.
- sc10. *4th workshop on Self-Stabilizing Systems*, Program committee member, (WSS 1999), 1999.
- sc11. *13th International Symposium on DIStributed Computing*, Program committee member, (DISC 1999), 1999.
- sc12. *Nineteenth Annual Joint Conference of IEEE Computer and Communications Societies (INFOCOM 2000)*, Program committee member, 2000.
- sc13. *Opening ceremony of the Computer Science Department* — scientific program organization, March 2000.
- sc14. *7th International Colloquium on Structural Information and Communication Complexity (SIROCCO 2000)*, Program committee member, 2000.
- sc15. *Dagstuhl-Seminar on Self-Stabilization*, program and organization, October 21-27, 2000.
- sc16. *21st International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2001), 2001.
- sc17. *Workshop on Algorithms and Data Structures (WADS 2001)*, Program committee member, 2001.
- sc18. *5th workshop on Self-Stabilizing Systems*, Program committee member, (WSS 2001), 2001.
- sc19. *15th International Symposium on DIStributed Computing*, Program committee member, (DISC 2001), 2001.
- sc20. *21st Annual ACM Symp. on Principles of Distributed Computing*, Program committee member, (PODC 2002), August 2002.
- sc21. *9th International Conference on Parallel and Distributed Systems*, (ICPADS 2002), Vice PC Chair Distributed Systems, December 2002.
- sc22. *23rd International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2003), 2003.
- sc23. *6th International Symposium on Self-Stabilizing Systems*, Program committee member, (SSS 2003), 2003.
- sc24. *18th International Symposium on DIStributed Computing*, Program committee member, (DISC 2004), 2004.
- sc25. *25th International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2005), 2005.
- sc26. *24th Annual ACM Symp. on Principles of Distributed Computing*, Program committee member, (PODC 2005), August 2005.



- sc27. *5th IEEE International Workshop on Algorithms for Wireless Mobile Ad Hoc and Sensor Networks*, Program committee member, (WMAN 2005), April 2005.
- sc28. *The 6th International Workshop on Information Security Applications*, Program committee member, (WISA 2005), August 2005.
- sc29. *Dagstuhl-Seminar on Anonymous Communication and its Applications*, program and organization, October 9-14, 2005.
- sc30. *Israeli Conference on Software Engineering and Management*, Program committee member, (ICSEM 2005), June 9, 2005.
- sc31. *International Conference on Autonomous and Autonomic Systems*, (ICAS2005) Technical program committee member.
- sc32. *International Conference on Principles Of DIStributed Systems*, Program committee member, (OPODIS 2005), 2005.
- sc33. *12th International Colloquium on Structural Information and Communication Complexity*, (SIROCCO 2006) Program committee member, 2006.
- sc34. *26th International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2006), 2006.
- sc35. *20th International Symposium on DIStributed Computing*, (DISC 2006), **Program Chair**.
- sc36. *Second International Conference on Distributed Computing in Sensor Systems* (DCOSS 2006), 2006.
- sc37. *International Conference on Autonomous and Autonomic Systems*, (ICAS2006) Technical program committee member.
- sc38. *ALGOSENSORS*, Program committee member, 2006.
- sc39. *4th IEEE International Conference on Information Technology: Research and Education* (ITRE), Program committee member, 2006.
- sc40. *8th International Symposium on Stabilization, Safety, and Security of Distributed Systems* Program committee member, (SSS 2006), 2006.
- sc41. *International Symposium on DIStributed Computing*, **Steering committee** (2006-2009) **member at large** (2011-2013) **Vice chair** (2013-2015) **Chair** 2015-2017.
- sc42. *27th International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2007), 2007.
- sc43. *Seminar Artzi in distributed computing at BGU* — program and organization, December 2006.
- sc44. *Haifa Systems & Storage Workshop*, SyStor 2207, IBM and the Technion Program committee member, October 2007.
- sc45. *9th International Symposium on Stabilization, Safety, and Security of Distributed Systems* Program committee member, (SSS 2007), 2007.

- sc46. *Dagstuhl-Seminar on Fault-Tolerant Distributed Algorithms on VLSI Chips*, program and organization, September 7-12, 2008.
- sc47. *ALGOSENSORS*, Program committee member, 2008.
- sc48. *Networking Seminar Artzi 2008*, Cisco, Netanya, Program committee co-chair with Idit Keidar, May 2008.
- sc49. *First PerAda Workshop (SASO 2008)*, Program committee member, October 2008.
- sc50. *International Workshop on Optical SuperComputing, 2008 (OSC08)*, Program committee chair, August 2008.
- sc51. *10th International Symposium on Stabilization, Safety, and Security of Distributed Systems* Program committee member, (SSS 2008), 2008.
- sc52. *12th International Conference on Principles Of Distributed Systems*, Program committee member, (OPODIS 2008), 2008.
- sc53. *23rd IEEE International Parallel and Distributed Processing Symposium*, (IPDPS), 2009.
- sc54. *ALGOSENSORS*, **Program committee chair**, 2009.
- sc55. *SYSTOR, the Israeli Experimental Systems Conference*, 2009.
- sc56. *International Conference on Security and Cryptography*, SECRYPT 2009.
- sc57. *11th International Symposium on Stabilization, Safety, and Security of Distributed Systems* Program committee member, (SSS 2009), 2009.
- sc58. *30th International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2010), 2010.
- sc59. *International Workshop on Optical SuperComputing, 2009 (OSC09)*, **Program committee chair**, November 2009.
- sc60. *11th International Conference on Distributed Computing and Networking (ICDCN10)*, Program committee member, January 2010.
- sc61. *SYSTOR, the Israeli Experimental Systems Conference*, Program committee member, 2010.
- sc62. *30th International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2010), 2010.
- sc63. *The 10<sup>th</sup> Haifa Workshop on Interdisciplinary Applications of Graphs, Combinatorics and Algorithms*, Program committee member, 2010.
- sc64. *12th International Symposium on Stabilization, Safety, and Security of Distributed Systems* **General Chair**, (SSS 2010), 2010.
- sc65. *International Workshop on Optical SuperComputing, 2010 (OSC10)*, **Program committee chair**, 2010.
- sc66. *25th IEEE International Parallel and Distributed Processing Symposium*, (IPDPS), 2011.
- sc67. *SYSTOR, the Israeli Experimental Systems Conference*, 2011.

- sc68. *4th International Workshop on Physics and Computation*, 2011.
- sc69. *3rd Annual Workshop on Simplifying Complex Networks for Practitioners (Simplex)* 2011.
- sc70. *13th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2011)*, Track chair, 2011.
- sc71. *Spatial Computing Workshop*, 2011.
- sc72. *International Workshop on Software Knowledge, (SKY)* 2011.
- sc73. *ALGOSENSORS*, Program committee member, 2011.
- sc74. *Seventh ACM SIGACT/SIGMOBILE International Workshop on Foundations of Mobile Computing, (FOMC)*, Program committee member, 2011.
- sc75. *26th IEEE International Parallel and Distributed Processing Symposium, (IPDPS)*, Program committee member, 2012.
- sc76. *13th International Conference on Distributed Computing and Networking (ICDCN12)*, Program committee member, January 2012.
- sc77. *SYSTOR, the Israeli Experimental Systems Conference*, Program committee member, 2012.
- sc78. *14th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2012)*, Program committee member, 2012.
- sc79. *26th International Symposium on Distributed Computing, (DISC)*, 2012.
- sc80. *Spatial Computing Workshop*, 2012.
- sc81. *Sixth International Conference on FUN with Algorithms*, Program committee member, (FUN), 2012.
- sc82. *Eight ACM SIGACT/SIGMOBILE International Workshop on Foundations of Mobile Computing*, Program committee member, (FOMC), 2012.
- sc83. *ChipEx 2012*, Technical program committee member, 2012.
- sc84. *4th International Conference on Adaptive and Self-Adaptive Systems and Applications*, Technical program committee member, 2012.
- sc85. *14th International Conference on Distributed Computing and Networking (ICDCN13)*, Program committee member, January 2013.
- sc86. *8th International Conference on Algorithms and Complexity (CIAC 2013)* Program committee member, 2013.
- sc87. *ALGOSENSORS*, Program committee member, 2012.
- sc88. *16th International Conference on Principles Of Distributed Systems*, Program committee member, (OPODIS 2012), 2012.
- sc89. *8th International Conference on Information Security and Cryptology (Inscrypt)*, Program committee member, 2012.

- sc90. *32nd Annual ACM Symp. on Principles of Distributed Computing*, Program committee member, (PODC 2013), August 2013.
- sc91. *Algorithms and Data Structures Symposium (WADS 2013)*, Program committee member, 2013.
- sc92. *International Symposium on Algorithms and Experiments for Sensor Systems, Wireless Networks and Distributed Robotics*, ALGOSENSORS, Program committee member, 2013.
- sc93. *International Symposium on Algorithms and Experiments for Sensor Systems, Wireless Networks and Distributed Robotics*, **Steering Committee**, ALGOSENSORS, 2013-2014.
- sc94. *9th International Conference on Information Security and Cryptology (Inscrypt)*, Program committee member, 2013.
- sc95. *5th International Conference on Runtime Verification, (RV'14)*, Program committee member, 2014.
- sc96. *33th Annual ACM Symp. on Principles of Distributed Computing*, **Program Committee Chair**, (PODC 2014), August 2014.
- sc97. *3rd International Symposium on Privacy and Security in Cloud and Big Data*, Program committee member, (PriSec 2014), December 2014.
- sc98. *IEEE International Conference on Software Science, Technology and Engineering (SWSTE)*, Doctoral Symposium Chairman, June 2014.
- sc99. *1st International Conference on Information Systems Security and Privacy*, Program committee member, (ICISSP) 2015.
- sc100. *34th Annual ACM Symp. on Principles of Distributed Computing*, Program committee member, (PODC 2015), August 2015.
- sc101. *29th IEEE International Parallel and Distributed Processing Symposium, (IPDPS)*, Program committee member, 2015.
- sc102. *35th International Conference on Distributed Computing Systems*, Program committee member, (ICDCS 2015), 2015.
- sc103. *3rd International Workshop on Security in Cloud Computing, (AsiaCCS-SCC 2015)*, 2015.
- sc104. *17th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2015)*, Program committee member, 2015.
- sc105. *19th International Conference on Principles Of Distributed Systems*, Program committee member, (OPODIS 2015), 2015.
- sc106. *17th International Conference on Distributed Computing and Networking (ICDCN16)*, Program committee member, January 2016.
- sc107. *30th IEEE International Parallel and Distributed Processing Symposium, (IPDPS)*, Program committee member, 2016.
- sc108. *IEEE International Conference on Software Science, Technology and Engineering (SWSTE)*, **Program Committee co-Chair**, June 2016.

- sc109. *18th International Conference on Distributed Computing and Networking (ICDCN17)*, Program committee member, January 2017.
- sc110. *International Workshop on Inference and Private Hyperconnected World (INFER16)*, Program committee member, July 2016.
- sc111. *36th Annual ACM Symp. on Principles of Distributed Computing*, Program committee member, (PODC 2017), August 2017.
- sc112. *International Symposium on Cyber Security Cryptography and Machine Learning, (CSCML17)* **Steering Committee Chair and Program Committee co-Chair**, June 2017.
- sc113. *32nd IEEE International Parallel and Distributed Processing Symposium, (IPDPS)*, Program committee member, 2018.
- sc114. *16th IEEE International Symp. on Network Computing and Applications (IEEE NCA17)*, Program committee member, 2017.
- sc115. *IEEE International Conference on Blockchain (Blockchain-2018)*, 2018. Program committee member, 2018.
- sc116. *IEEE Symposium on Reliable Distributed Systems (SRDS 2018)*. Program committee member, 2018.
- sc117. *IEEE International Conference on Blockchain and Cryptocurrency*, Program committee member, 2019.
- sc118. *33rd International Symposium on Distributed Computing*, Program committee member, (DISC 2019), 2019.
- cs119. *Blockchain and Internet of Thing Conference (BIOTC 2019)*, Okinawa, Japan, 2019.
- cs120. *Blockchain and Internet of Thing Conference (BIOTC 2020)*, Singapore, 2020.
- sc121. *IEEE International Conference on Blockchain and Cryptocurrency*, Program committee member, 2020.
- sc122. *22nd International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2020)*, Program committee member, 2020.
- sc123. *26th European Symposium on Research in Computer Security, (ESORICS)*, October 2021.
- sc124. *2021 IEEE International Conference on Blockchain (Blockchain-2021)*, Program committee member, 2021.
- sc125. *23rd International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2021)*, Program committee member, 2021.
- sc126. *29th International Colloquium on Structural Information and Communication Complexity, (SIROCCO 2022)* Program committee member, 2022.
- sc127. *28th European Symposium on Research in Computer Security, (ESORICS)*, Program committee member, October 2023.

sc128. *42nd Annual ACM Symp. on Principles of Distributed Computing and the 37th International Symposium on Distributed Computing*, Doctoral Dissertation Award, Committee Chair, (PODC and DISC) 2023.

sc129. *22nd International Conference on Cryptology and Network Security* (CANS 2023), Program committee member.

sc130. *International Symposium on Algorithmics of Wireless Networks* (ALGOWIN 2023), Program committee member.

sc131. *ISF*, Evaluation Committee, 2023.

sc132. The 14th ACM Conference on Data and Application Security and Privacy CODASPY 2024.

### **Industrial Committees:**

in1. *Committee for the selection of the best Israeli Hi-Tech CEOs for 2010.*

in2. *Committee for the Israeli mobile challenge* 2011.

in3. *Committee of iNNOVEX* 2015.

in4. *Committee of ChipEx* 2013.

in5. *Committee of iNNOVEX* 2014.

in6. *Committee of ChipEx* 2014.

in7. *Software Steering Committee at ILTAM – Israeli Users' Association of Advanced Technologies in Hi-Tech Integrated Systems*, 2014.

in8. *Committee of iNNOVEX* 2016.

in9. *Committee of ChipEx* 2016.

in10. *Committee of iNNOVEX* 2017.

in11. *Committee of DevelopEX* 2017.

in12. *Committee of iNNOVEX* 2018.

in13. *Pitch Committee of Blockchain B7 Challenge*, June 2022.

### **Member in graduate student committees (selected/partial list):**

Chensdian Lin, Ph.D., Univ. of Chicago, June 1995.

Anat Bremler, M.Sc., Tel-Aviv Univ., Oct. 1996.

Itai Zilbershtein, M.Sc., EE Dept. Ben-Gurion Univ., Dec. 1997.

Igal Roytblat, M.Sc., EE Dept. Ben-Gurion Univ., Feb. 1998.

Zvi Ostfeld, Ph.D., Tel-Aviv Univ., Apr. 1998.

Arnon Levy, M.Sc. IE Dept. Ben-Gurion Univ., Nov. 1998.

Rony Ohayon, Ph.D. candidate, CSE Dept. Ben-Gurion Univ., Sept. 1999.

Yariv Cohen, M.Sc., IE Dept. Ben-Gurion Univ., Jan. 2000.

Nikolai Berezansky, M.Sc., CS Dept. Ben-Gurion Univ., May 2001.

Alex Gontmakher, Ph.D. candidate, CS Dept. Technion, June 2001.  
 Emanuel Dar, Ph.D., BIU, Feb. 2002.  
 Rami Rashkovits, Ph.D. candidate, IE Dept. Technion, June 2002.  
 Roni Ram, M.Sc., Technion, Sept. 2002.  
 Yoav Stahl, M.Sc., CS Dept. Ben-Gurion Univ., Oct. 2002.  
 Dudu Amzallag, IE Dept. Ben-Gurion Univ., Dec. 2002.  
 Dganit Miron Ali-Raz, ECE Dept. Ben-Gurion Univ., May 2003.  
 Tamar Pinhas, M.Sc., CS Dept. Ben-Gurion Univ., May. 2003.  
 Rony Ohayon, Ph.D., IE Dept. Ben-Gurion Univ., July 2003.  
 Itamar Elhannany, Ph.D, EE Dept. Ben-Gurion Univ., July 2003.  
 Shirlee Megidish, M.Sc., CS Dept. Ben-Gurion Univ., Nov. 2003.  
 Gregory V. Chockler, Ph.D., CS Hebrew University, Dec. 2003.  
 Dean H. Lorenz, Ph.D., EE Dept. Technion, March 2004.  
 Liran Liss, Ph.D. candidate, EE Dept. Technion, June 2004.  
 Svetlana Daichman, M.Sc., IE Dept. Ben-Gurion Univ., Dec. 2004.  
 Roi Zivan, Ph.D. candidate, CS Dept. Ben-Gurion Univ., Jan. 2005.  
 Itsik Kitroser, M.Sc., CS Dept. Ben-Gurion Univ., Jan. 2005.  
 Amit Dvir, M.Sc., CSE Dept. Ben-Gurion Univ., Jan. 2005.  
 Anders Gidenstam, Ph.D. candidate, Chalmers University of Technology, Sweden, Jan. 2005.  
 Judit Hasson, M.Sc., CS Dept. Ben-Gurion Univ., March 2005.  
 Ilanit Moodahi, M.Sc., CS Dept. Ben-Gurion Univ., April 2005.  
 Nir Levin, M.Sc., CS Dept. Ben-Gurion Univ., June 2005.  
 Alon Kama, Ph.D. candidate, CS Dept. Technion, July 2005.  
 Tina Nolte, Ph.D. reader, Dept. of EE and CS, MIT, July 2005.  
 Shira Zuker, Ph.D. candidate, CS Dept. Ben-Gurion, August 2005.  
 Dana Yagil, M.Sc., IE Dept. Ben-Gurion, September 2005.  
 Ariel Daliot, Ph.D. candidate, CS Dept. Hebrew University, November 2005.  
 Naama Ben-Mordechai, M.Sc., CS Dept. Ben-Gurion Univ., November 2005.  
 Nati Shaked, Ph.D. candidate, ECE Dept. Ben-Gurion Univ., Jan. 2006.  
 Michael Okun, Ph.D., CS Hebrew University, March 2006.  
 Amit Dvir, Ph.D. candidate, CSE Dept. Ben-Gurion Univ., April 2006.  
 Itsik Kitroser, Ph.D. candidate, CSE Dept, Ben-Gurion Univ., May 2006.  
 Anders Gidenstam, Ph.D. dissertation, Chalmers University of Technology, Sweden, Sept. 2006.  
 Gabi Kliot, Ph.D. candidate, CS Dept. Technion, Janaury 2007.  
 Enav Weinreb, Ph.D. dissertation, CS Dept. Ben-Gurion Univ., February 2007.  
 Ezra Hoch, Ph.D. candidate, CS Dept. Hebrew University, January 2008.  
 Alex Kogan, M.Sc., CS Dept. Technion, April 2008.  
 Olivier Peres, Ph.D. dissertation, LRI, Paris 11, September 2008.  
 Tina Nolte, Ph.D. dissertation, MIT, October 2008.  
 Gabi Kliot, Ph.D. dissertation, CS Dept. Technion, February 2009.  
 Dov Shirtz, Ph.D. candidate, ISE Dept. BGU, February 2010.  
 Arye Zahavi, Ph.D. candidate, CS Dept. BGU, March 2010.  
 Yuval Fledel, M.Sc., ISE Dept. BGU, April 2010.  
 Ido Ben-Zion, M.Sc., CSE Dept. BGU, May 2010.  
 Adi Suisa, Ph.D. candidate, CS Dept. BGU, June 2010.  
 Robert Moskovitch, Ph.D. dissertation, ISE Dept. BGU, November 2010.  
 Tomer Heber, M.Sc. dissertation, CS Dept. BGU, November 2010.  
 Yair Allouch, Ph.D. candidate, CSE Dept, BGU, January 2011.

Ezra Hoch, Ph.D., CS Dept. Hebrew University, March 2011.  
Gal Bar-Nissan, M.Sc. dissertation, December 2011.  
Moshe Ivry-Zazon, Ph.D. candidate, CS Dept. BGU, December 2011.  
Dimitri Bykhovsky, Ph.D. candidate, ECE Dept. BGU, January 2012.  
Gil Kedar, Ph.D., Faculty of EE, Technion, July 2017.  
Khaled Maâmra, Ph.D., University of Versaille, October 2017.  
Roi Chanael, M.Sc., ME Dept. TAU, May 2019.  
Leonid Azriel, Ph.D., Faculty of EE, Technion, November 2019.  
MALAG committee for PhD program approval, December 2019.  
Gal Shany, Ph.D., Civil Engineering, BGU, July 2021.  
David Denisov, M.Sc., Haifa University, February 2023.

**Member in tenure and promotion committee:**

Tenure committee, BGU, July 2001.  
Promotion to Senior Lecturer committee, BGU, August 2001.  
Tenure Track and Promotion Committee, Netanya Academic College, September 2001, May 2002.  
Tenure committee, BGU, January 2002.  
Tenure committee, BGU, March 2003.  
Promotion to lecturer committee, BIU, April 2004, June 2004, January 2007, May 2007.  
Tenure committee, BGU, June 2004.  
Tenure committee, BGU, March 2005.  
Tenure committee, BGU, May 2006.  
Promotion committee, Université de Paris-sud — Paris 11, LRI, Habilitation Exam of Sebastien Tixeuil, May 2006.  
Promotion to Senior Lecturer committee, BGU, December 2006.  
Promotion to Associate Professor and Tenure, BIU, January 2007.  
Promotion committee, Université de Paris-sud — Paris 11, LRI, Habilitation Exam of Colette Johnen, Nov. 2007.  
Tenure committee, BGU, February 2009.  
Promotion committee, Université Pierre & Marie Curie, Paris 6, Habilitation Exam of Maria Potop-Butucaru (Gradinariu), Dec. 2010.  
Promotion to Senior Lecturer committee, BGU, December 2010.  
Promotion to Senior Lecturer committee, BGU, January 2011.  
Promotion to Full Professor committee, TAU, April 2012.  
Promotion committee, Université de Paris-sud — Paris 11, LRI, Habilitation Exam of Sylvie Delaet, November 2013.  
Promotion to Full Professor committee, Open University, November 2017.  
Review, Full Professor, Faculty of Mathematics and Computer Science, Adam Mickiewicz University, Poznan, Poland, January 2019.  
Promotion to Senior Lecturer, Ono Academic College, March 2023.  
Promotion to Associate Professor, Al-Qasemi Academic College of Education, September 2023.