

Short CURRICULUM VITAE

1. Personal details:

Born: Jerusalem, Israel
IID: 05115713-9
Citizenship: Israel, USA
Familial Status: Married, 4 children
Military service: 1971-1980 (Atuda)

Home address: 6 Hadishon Str., Jerusalem, Israel 96956
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Office Address: School of Engineering and Computer Science
 The Hebrew University- Givat-Ram, Edmond J. Safra Campus
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2. Research interests:

Machine and statistical learning theory and applications; Statistical Mechanics; Theory of Dynamical Systems; Information Theory: applications to Biological Information Processing and Learning Theory. Computational Neuroscience, Information theory of perception and action. Computational biology. Applications to speech language and signal processing. Data mining algorithms.

3. Education:

1971 – 1974 B.Sc. in Mathematics and Physics (Cum Laude), The Hebrew University, Jerusalem, Israel.
 1977 – 1980 M.Sc. in Physics (Cum Laude), Tel-Aviv University. Thesis title: Spallation nuclear reactions in the galactic cosmic rays. Supervised by Prof. B.Z. Kozlovsky.
 1980 – 1985 Ph.D. in Theoretical Physics, The Hebrew University, Jerusalem, Israel. Reduced Dynamical Description: An Information Theoretic Approach. Supervised by Prof. Shlomo Alexander and Prof. Raphi D. Levine.

4. Academic and Administrative Positions:

2010 - Director, Interdisciplinary Center for Neural Computation (ICNC), Member of the Edmond and Lilly Safra Center for Brain Sciences (ELSC) The Ruth and Stan Flinkman family Chair in Brain Research Hebrew University.

1997 – Professor, Compute Science, The Hebrew University
 2004 – 2008 Chair of the science appointment committee, Hebrew university
 2003 – 2004 Visiting Professor, CIS Dept. University of Pennsylvania
 1998 – 2003 Founding chair of the Computer Engineering program, Hebrew university.
 1997 – 2000 Director of the Leibniz Research Center in Computer Science/
 1997 – 1998 Visiting Senior Scientist, NEC Research Institute, New- Jersey
 1995 – 1997 Associate professor, Computer Science, The Hebrew University.
 1992 – 1995 Senior Lecturer, Computer Science, The Hebrew University
 1992 – 2002 Senior faculty, Computational Neuroscience course, Marine Biology Laboratories (MBL), Woodshole (summers only).

1992 – Present Founding member of the Interdisciplinary Center for Neural Computation (ICNC), HUJI.

2002 – Present Member of the Sudarsky Center for Computational Biology, HUJI.

- 2000 – Present Member of the academic program of the Cognitive Science program.
- 1986 – 1991 Member of Research Technical Staff, Bell Laboratories, Murray Hill, New Jersey.
- 1985 – 1986 Post-doctoral fellow, MIT, Plasma Fusion Center and Physics Dept. Statistical physics of chaotic Hamiltonian systems (Chaim Weizman Fellow).

5. Other positions

- 2007-present Head of the Board of Directors, the Hebrew University Secondary School (Leyada)
- 2007 Member of the international evaluation committee of the Finnish computer science institutes.
- 2007-present Member of the Minerva fellowship committee
- 2006-present Member of the German Bernstein computational neuroscience centers advisory board.
- 2002-present Founding Member of "Machshava"
- 1999-2004 Advisory board of "Banter Co."
- 2005-2007 Advisory board of "SDS Co."
- 1980-1984 Teaching assistant, Physics dept. Hebrew University
- 1982-1983 Open University
- 1974-1989 Research officer, IDF (ending rank: major)
- 1973-1974 Math. Teacher (Leyada)

Editorial boards (past and present)

- Neuroinformatics
- Network: Computation in Neural Systems
- Journal of Machine Learning Research (JMLR)
- Neurocomputing,

6. Awards and Grants:

Awards:

1. The Ruth and Stan Flinkman Family Chair in Brain Research (2010-)
2. IBM Faculty Award (2005,2006,2007)
3. Alon fellowship (1991)
4. Chaim Weizman postdoctoral fellowship (1985)
5. Eliyahu Golomb Israel's Security Award (1980)

Research grants:

1. [2009-2012] ISF Bikura grant (with Merav Ahissar) (180,000\$)
2. [2008-2010] Complexity Science grant (with Israel Nelken and Merav Ahissar) (90,000\$).
3. [2007-2008] NATO SfP BESAFE CBM.MD.SFPP-982480 grant, with Rita Cucchiara (UNIMORE). Total 200,000 Euro. For 2 years.
4. [2007] BINCA Grant on "The Prehistory of the Hebrew Language". With: N. Agmon, Anna Balfer-Cohen, and Steven Fassberg.
5. [2005-2008] IBM Faculty Award
6. [11/ 2000 – 9/2005] Neuronal representation of voluntary complex movements in the primary motor cortex, Israel science foundation (8006/00-1) excellence research center with H. Bergman, E. Vaadia, M. Abeles, H. Somplinsky, \$1,400,000,
7. [2003-2004] Nano-Biomolecular Computers. Israels' Ministry of Science and

- Technology.with Ehud Shapiro (2 years)
8. [2002-2004]Computational methods in whole genome analysis. Israels' Ministry of Science and Technology. With H. Margalit, N Friedman, N Linial, M. Linial.
 9. [11/1998-8/2002:] Human Frontiers Science Project (HFSP). Discriminating Foreground and Background Sounds at Multiple Levels of the Brain. With Eric Young, Israel Nelken, Ad Artsen. (\$650,000 for 3 years)
 10. [9/1999-8/2002:] US-Israel Binational Science Foundation (BSF). Extracting relevant information: An information theoretic approach to neural codes and language modeling. With William Bialek and Fernando C. Pereira (\$60,000 for 3 years)
 11. [8/1998-9/2002:] Israels' Ministry of Science and Technology. Internet and Intranets: Heterogeneous Information Sources and Digital Libraries. With C. Beeri, G. Alber, R. El-Yaniv, T. Milo, Y. Sagiv, and O. Shmueli. (1,200,000 NIS per year).
 12. [9/1997-8/2000:] Israeli Academy of Science, Analysis of cortical recordings using Hidden Markov Models (\$70,000)
 13. [1/1997-12/2000:] German-Israel Science Foundation (GIF). Self-organization and Learning from Examples via Statistical Computational Processes. With E. Shamir S. Ben-David, J. Bhumann, H.U. Simon. (Hebrew University part per year: 52,500DM)
 14. [12/1996-11/97:] France-Israel Scientific Collaboration (AFIRST). High level structuring and intelligent content based retrieval. With Xavier Rodet and Shlomo Dubnov, IRCAM, Paris. (\$27,000)
 15. [8/1995-11/98:] Israels' Ministry of Science and Technology. Intelligent Utilization of Heterogeneous Information Sources and Digital Libraries. With C. Beeri, G. Alber, T. Milo, Y. Sagiv, and O. Shmueli. (735,000 NIS for this period). Extended for another year.
 16. [7/1995-6/96:] Israel Defense Ministry, Parallel ATR and clustering methods.} (with S. Peleg, M. Werman and D. Weinshall, \$74,650).
 17. [9/1995-8/98:] US-Israel Binational Science Foundation (BSF). Statistical Learning in Natural Language Modeling . With Fernando C. Pereira, AT\&T Bell Laboratories (\$50,000)
 18. [1993-6:] Israel Ministry of Science and Technology. Learning and Adaptation in Man-Machine Communication} (\$30K a year)
 19. [1992-4:] Hungary-Israel scientific collaboration. Support for travel and joint research in Learning in Neural Networks.With Geza Gyorgyi, Etvos University.
 20. [1992-3:] Support for research in Cursive Handwriting Recognition, under contract with Yissum and ART (Advance Recognition Technology Ltd. Tel-Aviv) (\$30K a year).
 21. [1992-3:] Research grant for learning laboratory and research. Center for Neural Computation. With Haim Sompolinsky and Shaul Hochstein. (\$100K).
 22. Goldberg foundation. Support for research on man-machine interaction. (\$30 for 3 years).
 23. [1992-5:] Israeli Academy of Science (ISF), Learning Invariants in Visual and Temporal Pattern Recognition}, with Daphna Weinshall (\$50K for 3 years).
 24. [1992:] Basic Research Foundation (VATAT), (\$100K)
 25. [1991-4:] US-Israel Bi-National Science Foundation (BSF), Statistical Methods in Machine Learning, with Eli Shamir, David Haussler and Manfred Warmuth (\$64K for 3 years).

7. Graduate Students and Postdocs:

- Hadar Levi Aharoni (PhD-)
- Roy Fox (PhD-)
- Nori Jacobi (PhD-, co-advisor: [Merav Ahissar](#))

- Asaf Gal (PhD-, co-advisor: Shimon Marom)
- Sivan Sabato (PhD-)
- Jonathan Rubin (PhD- , co-advisor: Israel Nelken)
- Yuval Tassah (PhD- , Co-advisor: Emo Todorov)
- Ohad Shamir (PhD-2010)
- Naama Parush (PhD, 2010, Co-advisor: Hagai Bergman)
- Yevgeny Seldin (PhD, 2010)
- Hani Neuvirth (PhD-!)
- Roi Weiss (MSc 2008)
- Eyal Krupka (PhD 2008)
- Amir Navot (PhD 2006)
- Ran Gilad-Bachrach (PhD 2005)
- Amir Globerson. (PhD 2005) (Co-advisor: Eilon Vaadia)
- Yaacov Engel (PhD 2005) (Co-advisor: Ron Meir)
- Shmuel Brody (MSc 2005)
- Amit Rosner (Co-advisor: Udi Shapiro)
- Gill Bejerano (PhD 2003. Co-advisor: Hanah Margalit)
- Gal Chechik (PhD 2003. Co-advisor: Eli Nelken)
- Noam Slonim (PhD 2002)
- Elad Schneidman (PhD 2001. Co-advisor: Idan Segev)
- Adi Schreibman (MSc 2000)
- Shai Fine (MSc 1996, PhD 1999)
- Itay Gat (MSc 1995, PhD 1999. Co-advisor: Moshe Abeles)
- Golan Yona (PhD 1998. Co-advisors: Nati & Michal Linial)
- Lidror Troyansky (PhD 1997)
- Shlomo Dubnov (PhD 1996. Co-advisor: Dalia Cohen)
- Dana Ron (PhD 1995)
- Yoram Singer (PhD 1995)
- Tzvika Svinik (MSc 1994)
- Michal Rosen-Zvi (PostDoc 2004-2005)
- Jan Stiller (Post Doc 2000)
- Shahar Mendelson (Post Doc 1999)

- Ran El-Yaniv (Post Doc 1996-98)