

Saharon ROSSET, Ph.D.

CURRICULUM VITAE

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Date and place of birth: 26/6/1969 Evanston, IL
Date of immigration to Israel: Dec. 1970
ZAHAL (Israeli) Military Service: 1987-1992
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EDUCATION

1992–1994 B.Sc., Mathematics
Tel Aviv University
Date of award: 1995 (Summa Cum Laude)
1995–1999 MSc., Statistics
Tel Aviv University
Date of award: 2000 (Summa Cum Laude)
Title of Masters Thesis: *Ranking: Methods for Flexible Evaluation
and Efficient Comparison of Classification Performance*
Name of Supervisor: Professor David Steinberg
1999–2003 Ph.D., Statistics
Stanford University, Stanford, CA
Date of award: 2003
Title of Doctoral Dissertation: *Topics in Regularization and Boosting*
Name of Supervisors: Professors Jerome Friedman and Trevor Hastie

ACADEMIC AND PROFESSIONAL EXPERIENCE

1993–1997 Mathematical programmer, Ron Soferman Image Processing Ltd., Israel
Developing image processing and fax encryption software.

- 1997–2003 Data Mining researcher/consultant, Amdocs Ltd (USA & Israel).
Developing data mining solutions for the telecommunications industry.
- 1999–2001 Research assistant, Statistics Dept., Stanford University, CA.
Data analysis project funded by Blue Martini Ltd.
- 2001–2003 Teaching assistant, Statistics Dept., Stanford University, CA.
- 2003–2007 Research Staff Member, Mathematical Sciences Dept., IBM T.J. Watson Research Center, NY.
Developing algorithmic and statistical solutions to problems in business and scientific domains.
- 2007–2010 Senior Lecturer, Dept. of Statistics and Operations Research, Tel Aviv University, Israel.
- 2010–2016 Associate Professor (with tenure), Dept. of Statistics and Operations Research, Tel Aviv University, Israel.
- 2016–present Professor, Dept. of Statistics and Operations Research, Tel Aviv University, Israel.

OTHER ACTIVITIES

- 2005–2006 Participated in Genographic project’s media campaign: interviewed for dozens of media outlets worldwide.
- 2006–2007 Chair of IBM Research’s Knowledge Discovery PIC (Professional Interest Community).
- 2006–present Action Editor for Journal of Machine Learning Research.
- 2008–2012 Associate Editor for Technometrics.
- 2008–2011 Statistics seminar organizer at Tel Aviv University.
- Jun. 2009 Program organizer for the 2009 meeting of the Israeli Statistical Association.
- 2011–2016 Senior program committee member for KDD-2011, KDD-2012, KDD-2013, KDD-2014, KDD-2015, KDD-2016 (the 17th-22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining).
- 2012–2014 Organizing committee for Clinical Genomic Analysis workshops: CGA-2012, CGA-2013, CGA-2014.
- May 2012 Program chair for the 2012 meeting of the Israeli Statistical Association.
- May 2012 Organizing committee chair for the 2012 meeting of the Safra Bioinformatics center at TAU.
- Aug. 2015 Featured guest on television program ”What is a muse — in the lab” (host: Yaron London), introducing scientific topics to children, in the episode on statistics and probability.

- 2015–present Member of the Tel Aviv University center for Data Science steering committee.
- 2015–present Associate editor for *Statistica Sinica*.
- Feb. 2017 Co-organizer of joint TAU-University of Toronto workshop on “Big Data and Health”.
- Oct. 2017 Invited to give two-week course on “Statistical Learning in Big Data” at University of Vienna.

INVITED TALKS

- Aug. 2004 Invited talk at Joint Statistical Meetings, Toronto, Canada.
- Apr. 2005 Invited talk at Genographic project launch, Washington D.C.
- Jan. 2006 Invited talk at Shiluvim entrepreneurship forum, Tel Aviv University Engineering Dept. alumni club, Israel.
- May 2006 Invited talk at Genographic project yearly meeting, Capetown, South Africa.
- Aug. 2006 Invited tutorial titled *Data Analytics for Marketing Decision Support* given at Twelfth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD-06, Philadelphia, PA.
(with Naoki Abe)
(also given at SIAM Data Mining 2007, SDM07)
- Aug. 2007 Invited talk at Joint Statistical Meetings, Salt Lake City, UT. (did not attend, talk given by colleague)
- Aug. 2007 Invited talk at Genographic project yearly meeting, Shanghai, China.
- Aug. 2007 Winner’s talk at KDD-07 workshop on the KDD/Netflix Cup, San Jose, CA.
- Jun. 2008 Invited talk at IBM Haifa Research Center Machine Learning day, Haifa, Israel.
- Jun. 2008 Invited talk at Israeli Statistical Association meeting, Herzeliya, Israel.
- Nov. 2008 Invited talk at inaugural meeting of the Israeli branch of the European Network for Business and Industrial Statistics (IsENBIS), Tel Aviv, Israel.
- Jun. 2009 Invited tutorial titled *Predictive Modeling in the Wild* given at Fifteenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD-09, Paris, France.
(with Claudia Perlich)
- Oct. 2009 Invited talk at CIBB-09, the Sixth Intl. Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics.

- Oct. 2009 Invited talk at TIGEM, Napoli, Italy.
- May 2010 Invited keynote talk at Israeli Statistical Association meeting 2010.
- Dec. 2010 Invited talk at workshop titled *Practical Applications of Sparse Modeling: Open Issues and New Directions* at the Neural Information Processing System conference in Whistler, Canada.
- Oct. 2011 Invited talk at Google day 2011: Machine learning for massive datasets.
- Dec. 2011 Invited talk at Technion BKU Workshop on Genetic variations in Human populations.
- May 2011 Invited talk at IBM Haifa Research Center Clinical Genomic Analysis workshop 2012.
- Jul. 2012 Invited talk at “Best of Annals of Applied Statistics” session at the Joint Statistical Meetings 2012, San Diego.
- Mar. 2013 Invited talk at Data Mining for Business Intelligence meeting in Ben Gurion University.
- Oct. 2013 Invited talk at Mini-symposium for Trevor Hastie’s 60th birthday, Los Angeles.
- May 2014 Invited tutorial at yearly retreat of the Safra Bioinformatics center at TAU.
- Oct. 2014 Invited talk at workshop on Statistical Genetics, Bertinoro, Italy.
- Nov. 2014 Invited talk at Israel Biostatistics day, Sheba Hospital, Israel.
- Mar. 2015 Invited talk at ENAR meeting, Miami, Florida.
- Nov. 2015 Invited talk at Bi-annual retreat of TAU Cancer Research Center, Ein Bokek, Israel.
- Mar. 2016 Invited talk at workshop on high-dimensional statistical inference, Oberwolfach, Germany.
- Jul. 2016 Invited talk at Computational Genomics Summer Institute, UCLA.
- Nov. 2016 Invited talk at IBM Haifa Research Center Machine Learning day 2016.

OTHER ACADEMIC SEMINARS AND COLLOQUIA (since 2011)

- May 2011 School of Computer Science Colloquium at Tel Aviv University, Israel.
- Jul. 2012 Statistics Seminar at Stanford University, CA.
- Jul. 2012 Computational Biology seminar at UCLA, CA.
- Mar. 2013 Machine Learning Seminar at IBM Research, NY
- Mar. 2013 Statistics Seminar at Cornell University, NY
- Mar. 2013 Statistics Seminar at New York University, NY

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| Oct. 2013 | Statistics Seminar at Tel Aviv University, Israel. |
| Oct. 2013 | Statistics Seminar at University of Toronto, Canada. |
| Oct. 2013 | Statistics Seminar at University of California, Irvine, CA. |
| Nov. 2013 | Statistics Seminar at Carnegie Mellon University, PA. |
| Mar. 2014 | Statistics Seminar at Hebrew University, Israel. |
| Oct. 2014 | Statistics Seminar at Michigan University, MI. |
| Oct. 2014 | Statistics Seminar at Columbia University, NY. |
| Mar. 2015 | Statistical Genetics Seminar at University of California, San Francisco, CA. |
| Mar. 2015 | Biostatistics Seminar at Stanford University, CA. |
| Mar. 2015 | Industrial Engineering Seminar at Technion, Israel. |
| Mar. 2016 | Statistics Seminar at Tel Aviv University, Israel. |

ACTIVE PARTICIPATION IN INTERNATIONAL CONFERENCES (in bold – presented talk and/or paper)

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| KDD | International Conference on Data Mining: 1998, 1999, 2000, 2001, 2002, 2007, 2009 , 2015 |
| NIPS | Neural Information Processing Systems: 2002, 2003, 2004, 2010 |
| JSM | Joint Statistical Meetings: 1998, 2004, 2012 |
| ICML | International Conference on Machine Learning: 2004, 2008 |
| ISMB | International Symposium on Molecular Biology: 2009, 2010 , 2012 |
| SDM | SIAM Conference on Data Mining: 2006 |
| ENAR | Eastern North American Region of the International Biometric Society: 2014 |
| | Genographic Project yearly meetings: 2005, 2006, 2007 |
| | UCLA Computational Genomics Summer Institute: 2016, 2017 |

ACADEMIC AND PROFESSIONAL AWARDS

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| 1999 | Nimrod Lapid award for best MSc thesis in Statistics at Tel Aviv university. |
| 1999 | Arik Peretz award for best MSc thesis with applications in Biostatistics. |
| 1999 | Headed team that won the knowledge discovery task of KDD-Cup 99, the yearly international data mining competition. |
| 2000 | Advised team that won two of five sub-competitions at KDD-Cup 00. |

- 2002 IBM Graduate Fellow, Frontiers of Engineering meeting, September 02, Irvine, CA.
- 2002 Primary author of best application paper award winner at KDD-2002.
- 2006 IBM Research Outstanding Technical Achievement Award.
- 2007 IBM Research Outstanding Technical Achievement Award.
- 2007 Headed team that won one of two sub-competitions at KDD-Cup 07.
- 2008 Participated on team that won both sub-competitions at KDD-Cup 08.
- 2008 Participated on team that won one of two sub-competitions at INFORMS 2008 data mining challenge.
- 2011 Sackler chair for advancement of young faculty at TAU.
- 2011 Senior author of best research paper award winner at KDD-2011.

RESEARCH GRANTS

- 2005–2008 NSF grant DMS-0505432 for \$115,597 (co-PI with Ji Zhu of Univ. of Michigan, not eligible for disbursements).
- 2007–2011 EU FP7 International Reintegration Grant for 100,000 Euros (sole PI).
- 2008–2011 Alon Fellowship for young faculty.
- 2009–2012 ISF grant 1227/09 for \$95,000 (sole PI).
- 2010–2011 One-year grant for functional genetics research from IBM Research Israel for \$66,000 (co-PI with Ron Shamir, Eran Halperin, equal parts).
- 2011–2012 Second-year renewal of grant for functional genetics research from IBM Research Israel for \$66,000 (co-PI with Ron Shamir, Eran Halperin, equal parts).
- 2012–2016 ISF grant 1487/12 for \$175,000 (sole PI).
- 2014 Microsoft UNext faculty award for \$15,000 (sole PI).
- 2015 Microsoft Azure Research award for \$20,000 (sole PI, for cloud computing services).
- 2016–2020 ISF grant 1804/16 for \$155,000 (sole PI).

REFEREEING AND PROGRAM COMMITTEE MEMBERSHIP

- Journals Annals of Statistics; Journal of the Royal Statistical Society; Journal of the American Statistical Association; Journal of Computational and Graphical Statistics; Statistica Sinica; Journal of Machine Learning Research; Biometrika; Machine Learning Journal; Data Mining Journal;

AI in Medicine; Journal of Statistical Planning and Inference; Technometrics; Annals of Applied Statistics; Journal of Interactive Marketing; PLoS ONE; Theoretical Population Biology; IEEE Transactions on Pattern Analysis and Machine Intelligence; PNAS; PLoS Computational Biology; American Journal of Human Genetics; PLoS Genetics; Nature Reviews Genetics

Conferences Neural Information Processing Systems (NIPS); Intl. Conf. on Knowledge Discovery in Databases (KDD); Intl. Conf. on Machine Learning (ICML); IEEE Conf. on Data Mining (ICDM); Conf. of the American Assoc. of Artificial Intelligence (AAAI); International Symposium on Molecular Biology (ISMB); RECOMB

STUDENTS SUPERVISED

Postdoctoral researchers

1. Ronny Luss (PhD 2009, Princeton): advised 2009-2011
Area: Isotonic modeling with applications in Genetics
2. Amit Moscovich-Eiger (PhD 2016, Weizmann Institute): advising 2017-2018 (expected)
Area: Statistical inference on k-fold cross validation

PhD students

Graduated:

1. David Golan: Graduated in 2014
Thesis title: Statistical Challenges in Uncovering the Genetic Architecture of Human Disease
2. Shlomi Lifshits: Graduated in 2015; jointly advised with Yaniv Assaf of Tel Aviv University
Thesis title: Brain Tissue Classification and Characterization using MRI
3. Amichai Painsky: Graduated in 2016; jointly advised with Meir Feder of Tel Aviv University
Thesis title: Generalized Independent Components Analysis Over Finite Alphabets
4. Omer Weissbrod: Graduated in 2016; jointly advised with Dan Geiger of Technion
Thesis title: Linear and Generalized Linear Mixed Models for Genetic Case Control Studies

Current:

1. Keren Levinshtein-Hallak: Started in 2014
Area: Analysis and modeling of genomic mutation processes
2. Assaf Rabinowicz: Started in 2016
Area: Inference on prediction error in linear mixed models and generalized least squares

Graduated Master's students:

1. Giora Simchoni: Completed thesis in December 2010
Topic: Canonical correlation analysis with applications to text corpora
2. Adi Sarid: Completed thesis in September 2011
Topic: Testing monotonicity in empirical distributions, with applications in genetics
3. Amichai Painsky: Completed thesis in March 2012
Topic: Bi-clustering using combinatorial auctions
4. Shchahar Kaufman: Completed thesis in March 2012
Topic: Paradoxes of model optimism in model selection
5. Slava Borodovski: Completed thesis in June 2012
Topic: Applications of the negative Binomial distribution in A-B testing and beyond
6. Lital Bridavsky: Completed thesis in January 2014; jointly advised with Chava Peretz
Topic: Case control study of interactions in Parkinson's disease using logistic regression exploiting gene-environment independence
7. Roe Eilat: Completed thesis in March 2016
Topic: Power of permutation tests in Bioinformatics problems
8. Ayala Neuderfer: Completed thesis in March 2017
Topic: Isotonic Modeling for predicting the NCAA Basketball tournament
9. Eyal Fisher: Completed thesis in September 2017
Topic: Construction of test inversion confidence intervals using quantile regression
10. Dan Caspi: Completed thesis in November 2017
Topic: Boosting trees for multi-task learning

Current Master's students: Gal Oren, Aviv Navon, Dana Kaner, Alon Arad, Michael Kozak.