

# Curriculum Vitae

Yoav Ram

August 2015

## Personal Information

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## Education

- **Ph.D.** 2010 - 2016 (planned)
  - *Institution:* Tel-Aviv University
  - *Advisor:* Prof. Lilach Hadany
  - *Ph.D. title:* The Evolution of Stress-Induced Mutagenesis: Causes and Consequences (approved May 2012)
- **M.Sc.** 2010-2012 (direct Ph.D. track)  
Theoretical and Computational Biology, Tel-Aviv University
- **B.Sc.** 2007-2010  
Life-Sciences and Mathematics, *Cum laude*, Tel-Aviv University

## Publications

- Geffen, E., Hadany, L., **Ram, Y.**, and Gafny, S. Genetic diversity in edge populations: A complementary view. *Submitted*.
- **Ram, Y.** and Hadany, L. (2015) The probability of improvement in Fisher's geometric model: a probabilistic approach. *Theoretical Population Biology*, 99: 1-6. DOI: [10.1016/j.tpb.2014.10.004](https://doi.org/10.1016/j.tpb.2014.10.004)
- **Ram, Y.** and Hadany, L. (2014) Stress-induced mutagenesis and complex adaptation. *Proceeding of the Royal Society B*. 281: 20141025. DOI: [10.1098/rspb.2014.1025](https://doi.org/10.1098/rspb.2014.1025)
- Gueijman, A., Ayali, A., **Ram, Y.**, and Hadany, L. (2013) Dispersing away from bad environments: The evolution of fitness-associated dispersal (FAD) in homogeneous environments. *BMC Evol. Biol.*, 13:125. DOI: [10.1186/1471-2148-13-125](https://doi.org/10.1186/1471-2148-13-125) (OA)
- **Ram, Y.** and Hadany, L. (2012) The evolution of stress-induced hypermutation in asexual populations. *Evolution*, 66: 2315-2328. DOI: [10.1111/j.1558-5646.2012.01576.x](https://doi.org/10.1111/j.1558-5646.2012.01576.x)

## Software & Datasets

- **Ram Y.**, Hadany L. (2014) Data from: Stress-induced mutagenesis and complex adaptation. *Dryad Digital Repository*. DOI: [10.5061/dryad.3066j](https://doi.org/10.5061/dryad.3066j).
- **Ram, Y.**, Hadany, L. (2014) proevolution simulation: Version Charles. *ZENODO*. DOI: [10.5281/zenodo.11401](https://doi.org/10.5281/zenodo.11401).
- **Ram, Y.**, Guiejman, A. and Hadany L. (2014). proevolution simulation: Version Dobzhansky. *ZENODO*. DOI: [10.5281/zenodo.11400](https://doi.org/10.5281/zenodo.11400).

## Presentations

- 2015 Oral presentation** at the **Gordon Research Conference on Biological Mechanisms in Evolution**, Stonehill College, Easton, MA, USA, June 28 - July 3.  
Poster at the *Forecasting Evolution?* SFB 680 conference in Lisbon, Portugal, July 8 - 11.  
*The Population Genetics of Stress-Induced Mutation* - seminar at the IST, Austria, June 25.  
*Stress-induced mutagenesis & complex adaptation* - **Short oral presentation** at the Two2Many Systems Biology Conference, Weizmann Institute, March.  
Oral presentation at the Quantitative and Evolutionary Biology Seminar, Tel-Aviv University, March.  
*On the role of stress-induced mutagenesis in evolution* - Poster at the Israeli Genetics Society annual meeting, Weizmann Institute, February.
- 2014** *On the role of stress-induced mutagenesis in evolution* - Poster at ISM (Israel Society for Microbiology) annual meeting, Haifa, April.  
*Stress, mutation, evolution, and mathematical models* - Presentation at the Astrophysics student journal club at Tel-Aviv University, March.  
*Modeling the evolution of the mutation rate* - Presentation at the Topics in Theoretical and Mathematical Biology Seminar at Tel-Aviv University, March.  
*The rate of complex adaptation with and without stress-induced mutagenesis* - Poster at FISEB/ILANIT 2014, Eilat, February.
- 2013** Seminar presentation at the Pupko Lab at Tel-Aviv University, November.  
Seminar presentation at the Philosophy of Biology Group at the Humanities Faculty, Tel-Aviv University, October.  
*Adaptedness, Adaptability and Stress-Induced Mutagenesis* - Poster at *PDEs and Dynamical Systems in Biology* conference in Bar-Ilan University, October 1.  
*Adaptedness, Adaptability and Stress-Induced Mutagenesis* - Poster at **ESEB 2013** in Lisbon, Portugal, August 19-24.  
*Stress-induced Mutagenesis and the Evolution of Complex Traits* - Poster at the **Gordon Research Conference on Biological Mechanisms in Evolution**, Stonehill College, Easton, MA, USA, June 2-6.  
*The Role of Stress-Induced Mutation in the Emergence of Complex Adaptations* - **Oral presentation** at the *5th Annual SIDEER Graduate Symposium*, Ben-Gurion University of the Negev, Sede-Boqer Campus, March 20.
- 2012** *Evolutionary Causes and Consequences of Stress-Induced Hypermutation* - **Oral presentation** at *The 1st Graduate Students' Conference in Genetics, Genomics and Evolution*, Ben-Gurion University of the Negev, September 23. DOI: [10.6084/m9.figshare.96049](https://doi.org/10.6084/m9.figshare.96049).  
Seminar presentation at the Pilpel Lab at the Weizmann Institute of Science, June.  
*The Evolution of Stress-Induced Mutagenesis in Finite and Infinite Populations* - **Oral presentation** at *PopGroup 45* in Nottingham, UK, January. DOI:

[10.6084/m9.figshare.95939](https://doi.org/10.6084/m9.figshare.95939).

- 2011** Seminar presentation at the Eldar Lab at Tel-Aviv University, December.  
Seminar presentation at the Department of Molecular Biology and Plants M.Sc. Seminar at Tel-Aviv University, November.  
*Rise and Fall of Mutator Bacteria* - Seminar presentation at the *BioMath Student Journal Club*, Tel-Aviv University, May. DOI: [10.6084/m9.figshare.95940](https://doi.org/10.6084/m9.figshare.95940).  
*The Evolution of Stress-Induced Hypermutation* - Poster at **ESEB 2011** in Tübingen, Germany, August. See: [F1000 Posters 2011, 2: 1484](#).
- 2010** *The Evolution of Stress-Induced Hypermutation* - Poster at **SMBE 2010** in Lyon, France, July.  
*The Evolution of Stress-Induced Hypermutation* - Poster at *MMSB 2010* in Tel-Aviv, Israel – won the **Best poster award**.

## Awards

- 2015** The *Israel Society for Microbiology Travel Award to Forecasting Evolution?* in Lisbon, Portugal.  
The *Anat Karuskopf Fund Travel Award to Forecasting Evolution?* in Lisbon, Portugal.  
Travel award from the *Manna Institute for Plants BioSciences to Forecasting Evolution?* in Lisbon, Portugal.
- 2014** The Ministry of Science and Technology International Education Scholarship to travel to the 2015 **Gordon Research Conference on Biological Mechanisms in Evolution**.  
Research achievements scholarship from the Life-Science faculty, Tel-Aviv University.
- 2013** Fellowship from the *Manna Program in Food Safety and Security* for 2013-14.  
Travel award from the *Manna Institute for Plants BioSciences to ESEB 2013* in Lisbon, Portugal.
- 2012** Research achievements scholarship from the Life-Science faculty, Tel-Aviv University.  
Registration and accommodation waiver (sponsored by Cambridge University Press) for *PopGroup45* in Nottingham, UK.  
Crowd-funded travel expenses for *PopGroup 45* via *The #SciFund Challenge*.
- 2011** SSE International Travel Award to *ESEB 2011* in Tübingen, Germany.
- 2010** Direct Ph.D. scholarship from the Department of Molecular Biology and Ecology of Plants, Tel-Aviv University, 2010-2015.  
Undergraduate Diversity Mentoring Program award at *SMBE 2010* in Lyon, France.  
Best poster award at *MMSB 2010* in Tel-Aviv, Israel.
- 2009** The *Amos de-Shalit* Ulpana for excellent students in Life-Sciences at the Weizmann Institute of Science.

## Peer-Reviews

- 2015** Theoretical Population Biology  
**2014** PLOS ONE  
**2012** Proceeding of the Royal Society B  
**2011** Integrative Zoology

## Teaching

- Spring 2015** Python Programming for Biologists (0411-3122, Teacher) - new graduate students course  
Evolution (0455-2536, TA)
- Fall 2014** Python Programming for Engineers (0509-1820, Teacher)
- Summer 2014** Gentle Introduction to Programming (preparation course for 1st year CS students)  
Introduction to Programming for Engineers (preparation course for 1st year eng. students)
- Fall 2013** Python Programming for Engineers (0509-1820, Teacher)
- Summer 2013** Gentle Introduction to Programming (preparation course for 1st year CS students)  
Introduction to Programming for Engineers (preparation course for 1st year eng. students)
- Spring 2013** Extended Introduction to Computer Science (0368-1105, TA)
- Fall 2012** Python Programming for Engineers (0509-1820, TA)
- Spring 2012** Evolution (0455-2536, TA)
- Fall 2011** Python Programming for Engineers (0509-1821, TA)
- 2011-2014** Co-organizing the *BioMath Student Journal Club* at Tel-Aviv University

## Conferences

- 2015** **Gordon Research Conference on Biological Mechanisms in Evolution** in Stonehill College, Easton, MA, USA, June.  
*Forecasting Evolution?* SFB 680 conference in Lisbon, Portugal, July.  
*Two2Many* Systems Biology Conference, Weizmann Institute, March.  
Israeli Genetics Society annual meeting in Weizmann Institute, February.  
Israeli Society for Microbiology (ISM) annual meeting in Bar-Ilan, February.
- 2014** Israeli Society for Microbiology (ISM) annual meeting in Haifa, April.  
The *Federation of the Israeli Societies for Experimental Biology (ILANIT)* congress in Eilat, Israel, February.
- 2013** *PDEs and Dynamical Systems in Biology* conference in Bar-Ilan University, October.  
*The 14th Congress of the European Society for Evolutionary Biology (ESEB)* in Lisbon, Portugal, August.  
**Gordon Research Conference on Biological Mechanisms in Evolution** in Stonehill College, Easton, MA, USA, June.  
*The 5th Annual SIDEER Graduate Symposium - The Emergence of Design in Nature* in Ben-Gurion University of the Negev, Sede-Boqer Campus, March.
- 2012** *The 1st Graduate Students' Conference in Genetics, Genomics and Evolution* in Ben-Gurion University of the Negev, September.  
*The 45th Population Genetics Group* meeting in Nottingham, UK, January.
- 2011** *The 13th Congress of the European Society for Evolutionary Biology (ESEB)* in Tübingen, Germany, August.
- 2010** *Learning, Decision Making and Evolutionary Theory: Can We Bridge the Gap?* in Kfar-Blum, Israel, November.  
*Theoretical Models in Ecology, Evolution and Behavior: Recent Advances and Conceptual Issues* at the Hebrew University in Jerusalem, Israel, October.

*The annual meeting of the Society for Molecular Biology and Evolution (SMBE)* in Lyon, France, July.

*Mathematical Methods in Systems Biology* in Tel-Aviv University, Israel, January.

**2009** *From Darwin to Evo-Devo Symposium* in the Technion, Haifa, Israel, October.

*Evolution in Jerusalem: A Workshop in Celebration of Darwin's 'The Origin of Species'* in the Hebrew University, Jerusalem, Israel, October.

## Public Outreach

### Publications

- Even-Tov, E., Obolski, U., Gueijman, A., **Ram, Y.**, Hadany, L. (2010) The Evolutionary Riddle of Sexual Reproduction. *Galileo, an Israeli journal for popular science*: June, 32-41

### Presentations

- **Evolution and mutation in stressful times** - The evolution series in Tel-Aviv University's Botanical Gardens. 16 May, 2013.