

# Curriculum Vitae

Yoav Ram

March 2015

## Personal Information

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## Education

- **Ph.D.** 2010 - 2016 (planned)  
Evolutionary Theory Lab, Tel-Aviv University
  - Advisor: Dr. 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

**Upcoming** Poster at the **Gordon Research Conference on Biological Mechanisms in Evolution**, Stonehill College, Easton, MA, USA, June 28 - July 3.

**2015** *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

**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

**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.  
 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.