

Amir Erez

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Education / Research Experience

- 2020–now **Senior Lecturer**, *Hebrew University of Jerusalem, Israel.*
Racah Institute of Physics
- 2017–2020 **Postdoctoral Associate**, *Princeton University, USA.*
Center for the Physics of Biological Function and the Department of Molecular Biology
- 2014–2017 **Human Frontier Science Program: Postdoctoral Fellow**, *Memorial Sloan Kettering Cancer Center (MSKCC, NY) and National Institutes of Health (NIH, Bethesda), USA.*
- 2010–2014 **PhD. Physics**, *Ben Gurion University, Israel*, Advisor: Prof. Yigal Meir.
Thesis: “The Superconducting Transition in Disordered Thin Films”
- 2007–2010 **MSc. Physics**, *Ben Gurion University, Israel*, Advisor: Prof. Yigal Meir.
Magna Cum Laude
- 2003–2006 **BSc. Physics**, *Ben Gurion University, Israel.*
Summa Cum Laude

Teaching Experience

- 2020–now **Senior Lecturer.**
Normal teaching duties of a full-time faculty member in the Racah Institute
- 2012–2014 **Lecturer**, INTRO TO QUANTUM PHYSICS.
Solely responsible for a course covering elementary quantum mechanics for 2nd year engineering students. Charged with all aspects of teaching and course management, including managing two teaching assistants.
- 2009–2011 **Teaching Assistant**, GRADUATE QUANTUM MECHANICS.
- 2008–2011 **Teaching Assistant**, GRADUATE STATISTICAL MECHANICS.
- 2009–2012 **Teaching Assistant**, UNDERGRADUATE QUANTUM MECHANICS.
- 2007–2009 **Teaching Assistant**, UNDERGRADUATE STATISTICAL MECHANICS.

Awards

- 2014 Human Frontier Science Program - Cross-disciplinary post-doctoral fellowship.
- 2014 Wolf Foundation - Thalheimer PhD award.
- 2012 Zabey Prize for excellent MSc thesis.
- 2011 Adams Fellow of the Israel Academy of Sciences and Humanities.
- 2010 Negev Fellowship, Kreitmann Graduate School, Ben Gurion University.
- 2006 Physics department award for excellence in study, Ben Gurion University.
- 2005 Physics department award for excellence in study, Ben Gurion University.

Industry experience

- Summer 2006 **Summer Student**, CERN, Geneva, Switzerland.
Patched and launched tape robot daemon as part of infrastructure work on the LHC
- 2000-2002 **Senior Software Developer, Algorithms group**, SILICON VALUE LTD., Jerusalem, Israel.
Developed and implemented optimization and testing algorithms for VLSI chip design
- 1997-2000 **Programmer, Military**, IDF, Rank: NCO First Sergeant.
Wrote SQL-like database code for human resource data analyses
- 1995-1997 **Programmer**, SILICON VALUE LTD., Jerusalem, Israel.
Implemented and developed electronic design automation algorithms in C++ and PERL

Selected talks and posters

- 2019 **Talk: "A systematic analysis of over-expressed genes in the human microbiome"**, *Molecular biology colloquium*, Princeton University, Princeton, USA.
- 2019 **Talk: "A systematic analysis of over-expressed genes in the human microbiome"**, *"Think and drink"*, Princeton University, Princeton, USA.
- 2018 **Talk: "A systematic analysis of over-expressed genes in the human microbiome"**, *Bridging Theory and Experiment in Microbial Communities*, Princeton University, Princeton, USA.
- 2018 **Talk: "Universality of biochemical feedback and its application to immune cells"**, *Network Biology Research Group*, Technion, Haifa, Israel.
- 2018 **Talk: "Universality of biochemical feedback and its application to immune cells"**, *Physics department*, Bar Ilan University, Ramat Gan, Israel.
- 2018 **Talk: "Resource competition constrained by metabolic trade-offs"**, *Theory in biology meeting*, Boston University, Boston, USA.
- 2017 **Poster: "Quantitative analysis of the kinetics of monocyte differentiation"**, *HFSP Awardees meeting*, Lisbon, Portugal.
- 2017 **Talk: "Monocytes in the bone marrow: flow and CyTOF perspective"**, *Techniques at the Cancer and Inflammation Group*, NCI, Frederick, USA.
- 2016 **Poster: "Bone marrow origin for blood monocytes"**, *HFSP Awardees meeting*, Singapore.
- 2016 **Talk: "T-Cell activation and proliferation"**, *Quantitative Immunology*, Kavli Institute for Theoretical Physics, Santa Barbara, USA.
- 2016 **Talk: "T-Cell activation and proliferation"**, *Biochemistry group*, UCSD, San Diego, USA.
- 2016 **Talk: "Immune cells: lineage, proliferation and activation"**, *Immunology department*, Weizmann Institute, Rehovot, Israel.
- 2015 **Talk: "Immune cells: lineage, proliferation and activation"**, *Biophysics seminar*, Purdue University, W. Lafayette, USA.
- 2014 **Talk: "The superconducting transition in disordered thin films"**, *Biological Physics Theory Unit*, Okinawa Institute of Science and Technology, Okinawa, Japan.