

ADAMS
מלגות אדמס
Fellowships

האקדמיה הלאומית הישראלית למדעים
المجمع الوطني الإسرائيلي للعلوم والآداب
THE ISRAEL ACADEMY OF SCIENCES AND HUMANITIES



סמינר תשפ"ד | Seminar 2024

Adams Seminar

2024

סמינר אדמס תשפ"ד

Guest Lecturer

Prof. Amnon Shashua

President & CEO of Mobileye;

Professor of Computer Science, The Hebrew University of Jerusalem

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ADAMS

Fellowships מלגות אדמס

Celebration of the 20th Anniversary of the Adams Fellowships

The Adams Fellowships is a joint program of the late Mr. Marcel Adams of Canada and The Israel Academy of Sciences and Humanities.

Chartered by law in 1961, The Israel Academy of Sciences and Humanities acts as a national focal point for Israeli scholarship in both the natural sciences and the humanities and social sciences. The Academy's Members comprise 149 of Israel's most distinguished scientists and scholars, who, with the help of the Academy's staff and committees, monitor and promote Israeli intellectual excellence, advise the government on scientific planning, fund and publish research of lasting merit, and maintain active contact with the broader international scientific and scholarly community.

For more information, please send an e-mail to batsheva@academy.ac.il.
Visit our website: adams.academy.ac.il



Marcel Adams

Hebrew-speaking philanthropist Marcel Adams, who escaped from a forced-labor camp in Romania in 1944, fought in Israel's War of Independence and made his fortune in Montreal, endowed the Adams Fellowship Program to support Israel's brightest doctoral students in the natural and exact sciences each year.

Marcel Adams (Abramovich) was born in Piatra-Neamt, Romania, in 1920. The anti-Semitic regime in Romania during the Holocaust interrupted his studies, triggering a lifelong quest for learning and a zest for the life of the mind. An active member of Hanoar Hazoni in Bucharest, Adams survived forced labor, food shortages and arbitrary harassment by the authorities.

After coming to Israel with the Jewish Agency's help in 1944, Adams settled in Pardes Hanna and participated in the War of Independence. He moved to Canada in 1951 and worked as a tanner before going into real estate. He eventually developed dozens of properties, mostly in eastern Canada, including Galeries de la Capitale, the largest shopping mall in the province of Quebec. With his late wife Annie, he established Tel Aviv University's Adams Institute for Business Management Information Systems and endowed the university's Adams Super Center for Brain Research. Marcel Adams was a Montreal resident, the proud father of four and grandfather of eleven. After a lifetime full of energy and promoting young scientific minds, he passed away shortly after the celebration of his 100th birthday.

Adams officially signed an agreement to establish the Adams Fellowships with The Israel Academy of Sciences and Humanities in Jerusalem in May 2005. The fund provides fellowships annually to outstanding Ph.D. students, covering their full tuition and living expenses throughout three to four years of study and including funds for attending scientific conferences abroad. Most recipients are aged 26 to 34.

The easy way would have been to hand over a check, but Adams wished to pay back his 1944 debt to the Jewish people, which gave him a new identity and hope for rebuilding from the ashes of Europe. And so he endowed a fellowship program to enable talented young men and women to thrive intellectually, scientifically and technologically, and in turn to carry the flag for the next generation and for future generations.

A professional committee at the Academy reviews applications from doctoral students and chooses the awardees, for study in such fields as organic chemistry, molecular biology, chemistry, mathematics, engineering, physics, genetics, computer science, data science and brain research.

Marcel Adams wished to help the best and brightest academics, those with tremendous potential for growth, who have demonstrated excellence in both quality of mind and personal character.

This year's newly appointed Adams Fellows represent the Twentieth Cycle of the Adams Fellowship Program.

Marcel's Precious Moments with his Adams Fellows







Prof. David Harel

President of the Israel Academy

For two decades, The Israel Academy of Sciences and Humanities has been proud to grant the Adams Fellowships to outstanding doctoral students. The program was founded by the late Marcel Adams, who passed away three years ago.

This extremely important endeavor, now celebrating its 20th anniversary, has produced some of Israel's most brilliant researchers in the natural sciences, mathematics, computer science and engineering. Today I wish to extend my warmest greetings to the new fellows of the twentieth cycle. Over the years, Adams awardees have very successfully joined academic institutions, the high-tech and bio-tech industries and the health systems, in Israel and abroad. Their research has been published in the world's most important scientific journals. Each year, we are awed by the extraordinary candidates, and this year's awardees are no different. Take note of their names: They are worth remembering for the future. The Adams stipend amounts to NIS 100,000 a year for each of the 3 to 4 years of the fellowship. In addition, each fellow is allotted up to \$3,000 per year for travel expenses, active participation in international scientific conferences and workshops, research collaborations and travel abroad to interview for postdoctoral positions. This travel allowance contributes meaningfully to furthering their professional careers.

For almost ten months now, Israel has been going through a devastating period, about which I cannot seem to find the right words. There are still 120 hostages in Gaza, most of whom are apparently no longer alive; the tally of Israeli casualties in this war-with-no-end-in-sight continues to grow almost daily; and of course, the situation of the civilians in Gaza is truly intolerable and puts Israel in a very, very bad light in the eyes of the world and of a majority here in Israel too. Meanwhile, actions taken by our decision makers constitute a direct threat to the future of Israel's science, technology, culture and education. I hope and pray that all these problems will very soon be resolved, and that we may then all look forward to hearing about the great contributions to Israeli science that this year's Adams Fellows have in store for us.

I wish to express my deep gratitude to Mr. Sylvan Adams and his siblings, who are following in their father's footsteps with their commitment to science and to the young scientists awarded the fellowships. Apart from its significant financial contribution to their development, the Adams Fellowships Program, through its seminars, conferences, field trips and workshops, provides vital training and motivation for these young scientists and supports their efforts to attain the high level of research expected of Adams Fellows.

I wish to express my deep appreciation to Academy Member Professor Moshe Oren, who chairs the Academy's Steering and Approval Committee, and to the other committee members, for their time and expert judgment invested in evaluating the applications and selecting the outstanding young scientists who receive the fellowships each year. Great work!



Prof. Amnon Shashua

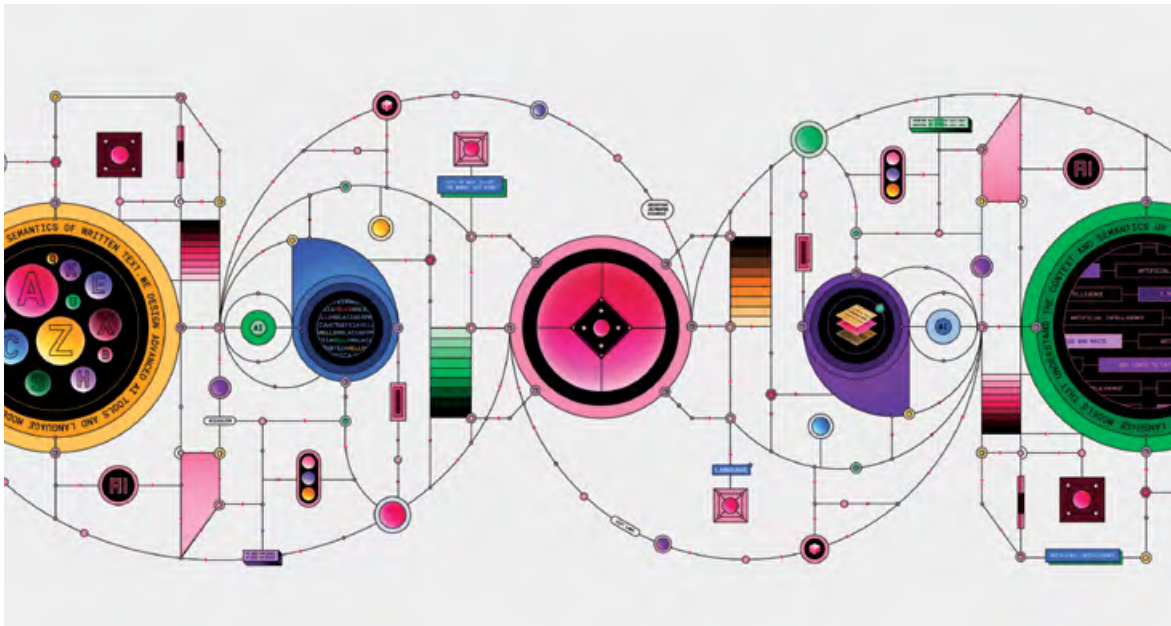
President & CEO of Mobileye;

Professor of Computer Science, The Hebrew University of Jerusalem

Guest Lecturer on

The Excitement and Danger in Modern AI

Prof. Amnon Shashua is a world-renowned expert in AI, computer vision, natural language processing and related fields. In 2023, he received the Israel Prize, the nation's top civilian honor for contributions to society, and he had previously been named the 2020 Dan David Prize laureate in the field of Artificial Intelligence and the 2022 Mobility Innovator by the Automotive Hall of Fame. Shashua has founded four companies using applied AI in various fields, from automotive to assisted wearables to fintech: Mobileye, OrCam, AI21 Labs and "One Zero," the first digital bank in Israel. Prof. Shashua serves as President & CEO of Mobileye, which was acquired by Intel in 2017 as the largest acquisition in Israeli history and went public again in 2022 on the Nasdaq stock exchange under the ticker symbol MBLY. Prof. Shashua holds the Sachs Chair in Computer Science at The Hebrew University of Jerusalem, has published over 160 papers in the field of machine learning and computational vision, and holds over 140 patents.



Above: AI21 Labs Announces Jurassic X-Module

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Prof. Moshe Oren

Academy Member; Chair of the Adams Fellowships
Steering and Approval Committee

Warm greetings to all our Adams Fellows, Adams Alumni, Adams Committee Members, Academy President Prof. David Harel, Academy Vice-President Prof. Margalit Finkelberg, Academy Members, and, last but surely not least, dear members of the Adams family, whose continuous generosity has enabled this unique program to promote scientific excellence in Israel for the last two decades.

Israel is going through very difficult times. We all pray for better days soon. During these dark days, one ray of light and hope is the continued excellence of Israeli science and technology, and particularly the high quality of the people who are behind this brilliance. I believe that maintaining this high level, despite all the current challenges, is the best guarantee for the future of our country.

Here is where you, Adams Fellows, come into the equation. This year we are celebrating 20 years of the Adams Fellowships Program, established in 2005 by the late Marcel Adams. Marcel was born in 1920 and lived in Europe through the years of the Second World War and the Holocaust. With the help of the Jewish Agency, he was able to escape from Europe in 1944 and come to Palestine. Although he subsequently moved to Canada, he always remained loyal to the State of Israel. Marcel never had a chance to complete his formal education, but this only increased his passion for learning and his admiration for human knowledge. It therefore came naturally to him, as a visionary who cared about the future of this country, to make his own contribution towards advancing knowledge in Israel. And as a person with a track record of making wise investments, he decided to invest in our next generation of scientific leaders.

This entrusts you, Adams Fellows, with a special mission: you are expected not only to advance your own careers, but also to fulfil a dream – Marcel's dream of making Israel a hub of scientific excellence and a powerhouse of human knowledge.

We, members of the Adams Fellowships Committee, make every effort to ensure that we pick the best of the best. You, in turn, should prove that we made the right decisions and that you stand up to the expectations of Marcel Adams. Always strive to be as excellent as you can be,

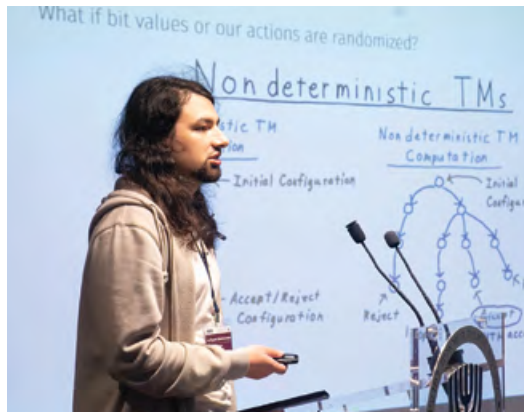
and never let your curiosity and your passion for knowledge fade out. In the face of growing calls in Europe and America to boycott Israeli scientists, our best answer is to become even more excellent and to give the international scientific community an even greater incentive to want to learn from us and collaborate with us.

Until you become part of the future generation of scientific leaders in our country, I would like to wish each of you a lot of satisfaction in your scientific endeavors and in moving successfully to the next stages of your career.



Science Communication Workshop, 2024





ADAMS Fellowships Steering & Approval Committee



Prof. Moshe Oren
Chair



Prof. Naama
Barkai



Prof. Yoav
Benjamini



Prof. Gedeon
Dagan



Prof. David
Gershoni



Prof. Shmaryahu
Hoz



Prof. Joseph
Kost



Prof. Elon
Lindenstrauss



Prof. Micha
Sharir



Prof. Hermona
Soreq



Prof. Yeshayahu
(Ishi) Talmon

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Prof. Moti Segev, Immediate Past Chair

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Prof. Itamar Willner, Past Chair

Prof. Chaim Cedar, Past Chair

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Prof. Noga Alon

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Prof. Gil Kalai

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Prof. David Kazhdan

Prof. Moshe Moshe

Prof. Avraham Nitzan

Prof. Yosef Shiloh

Prof. Igal Talmi

Prof. Jacob Ziv Z"L

ADAMS

Fellows

2024–2025

Michael Birk

PhD student of **Prof. Ido Kaminer**, Department of Electrical and Computer Engineering and **Prof. Oren Cohen**, Department of Physics, Technion – Israel Institute of Technology

Dissertation topic: Strong Field Quantum Optics



Born in 1992, Michael grew up in Rehovot and currently resides in Haifa. He earned a dual BSc in physics and electrical engineering *cum laude* from the Technion as part of the IDF's Psagot excellence program. While pursuing his BSc, he researched sparse

reconstruction in medical signal processing applications in the group of Prof. Yonina Eldar. After completing his BSc, he enlisted in the Israeli Navy, where he worked as an R&D engineer in the field of electronic warfare, later serving as a team leader. He completed his MSc under the joint supervision of Prof. Oren Cohen and Prof. Ido Kaminer at the Technion, where he is currently continuing his research as a PhD student.

Michael's research focuses on strong-field quantum optics – an unexplored frontier in light-matter interactions in which intense light with quantum properties interacts with matter. He has contributed to this field both in theoretical and experimental work, the latter being his current focus. He is also interested in extremely multimode quantum-optical systems as a platform for generation of resource states for quantum measurements and computations.

Michael's hobbies include social dancing, surfing, martial arts, learning languages and reading science fiction.

Roni Gattegno

PhD student of **Dr. Tali Ilovitsh**, Department of Biomedical Engineering, Tel Aviv University

Dissertation topic: Noninvasive Therapy and Diagnostic of Glioblastoma Using Ultrasound and Nanobubbles



Roni, born in 1996, grew up in Rishon Le Zion and now resides in Tel Aviv with her partner, Roi, and their dog. She began her academic journey at Tel Aviv University in 2017, pursuing dual degrees in biomedical engineering and neuroscience

at the Sagol School, graduating *magna cum laude*. During her undergraduate studies, she conducted research in Dr. Eran Stark's lab, providing her with *in vivo* experience and a background in spiking network mechanisms underlying cognition. Her work there resulted in co-authoring three papers.

Driven by her ambition to translate research into health solutions, in October 2021 Roni began a direct PhD program at Tel Aviv University under the supervision of Dr. Tali Ilovitsh. She first published a paper demonstrating enhanced permeability of the blood-brain barrier in small vessels following treatment with focused ultrasound and nanobubbles, as opposed to microbubbles. Her current research aims to utilize this method for noninvasive treatments and the diagnosis of glioblastoma.

Outside the lab, Roni is deeply committed to community service and spearheads several educational initiatives. She is the co-founder of the Mental Health Innovators Forum at her university.

Alon Gutfreund

PhD student of **Prof. Nathalie Q. Balaban** and **Prof. Oded Agam**, Racah Institute of Physics, The Hebrew University of Jerusalem

Dissertation topic: Investigating Regulatory Network Dynamics in Escherichia Coli: A Statistical Approach



Alon, born in 1994, grew up in Zichron Yaakov and now resides in Jerusalem with his wife, Yarden. Since a young age, Alon has been fascinated by nature and science. This passion was nurtured early in his life by his grandfather, a theoretical physicist, and

his parents, who are both biologists and currently faculty members at the Technion. After serving in an intelligence unit in the IDF, Alon moved to Jerusalem to complete his BSc in physics with a minor in earth sciences, graduating with honors.

Alon began his MSc at the “Quantum Imaging Lab” led by Prof. Yonathan Anahory after pursuing an undergraduate research project. He studied superconductor-ferromagnet heterostructures and managed to uncover the role of vortex motion in the appearance of a superconducting diode effect. During his MSc, Alon received the Rector's Award for excelling in his graduate courses.

Now a PhD candidate in Prof. Nathalie Q. Balaban’s biophysics lab and jointly supervised by Prof. Oded Agam, Alon’s research focuses on understanding antibiotic persistence through quantitative modeling and computational analysis of gene networks. His research aims to reveal mechanisms that trigger persistence in bacteria by combining insights from experiments and physics-informed theories. Alon hopes to make significant contributions to this field, and possibly to address broader applications, such as refining antibiotic treatments or dealing with persistence in cancer cells.

Vladimir Mindel

PhD student of **Prof. Naama Barkai**, Department of Molecular Genetics, Weizmann Institute of Science

Dissertation topic: How Transcription Factors Locate Their Binding Sites in the Large Genome: A Role of Intrinsically Disordered Protein Regions



Born in Kyiv, Ukraine, in 1994, Vladimir immigrated to Israel at age 13 through the NAALE program and officially made Aliyah in 2012. Today he lives in Rehovot with his wife, Ksenia, and child, Michael. Vladimir was drafted into the IDF in 2013, and after completing his military service, he pursued academics.

After earning a BSc in biochemistry and food science from the Hebrew University, Vladimir did his MSc studies at the Weizmann Institute of Science under Prof. Naama Barkai’s guidance, where he is now a PhD student. His doctoral research focuses on understanding how transcription factors locate and regulate their target genes.

Vladimir is investigating how specific genomic programs are exerted by transcription factors inside different genomes. Specifically, he is exploring the roles and mechanisms of disordered regions of the transcription factors – the parts that were thought to be not functional until several years ago and now are of major research interest.

His motivation is to further knowledge about the fundamental process of gene regulation, as alterations can play a role in diseases like cancer. Vladimir hopes that his findings will lead to potential investments and startups and contribute to scientific progress in Israel.

Doron Pinko

PhD student of **Prof. Sigal Abramovich**, Department of Earth and Environmental Sciences, and **Prof. Uri Abdu**, The Center for Evolutionary Genomics and Medicine, Ben-Gurion University of the Negev

Dissertation topic: Study of the Host-Symbiont Interactions in Benthic Foraminifera-Collaboration at the Forefront of Climate Change



Doron Pinko was born and raised in Kibbutz Neve Harif in the southern Arava desert. Growing up in the Arava allowed her to observe nature closely, shaping her curiosity and passion to understand the natural world. This curiosity led her to choose the unique

double major program in natural sciences at Ben-Gurion University, studying earth and life sciences. During her bachelor's degree, she met her husband, Amit.

As an undergrad, Doron was fascinated by biogeoscience, specifically by rock-building organisms such as foraminifera. Similarly to corals, some foraminifera species host microalgal symbionts and undergo bleaching under thermal stress. Her undergraduate research project focused on the effect of thermal stress on foraminifera and their microalgal symbionts, and the results were summarized in her first published paper. Early observation in this project led to her MSc research, which discovered 'chloroplasts symbiosis' (kleptoplasty) in foraminiferal species that were considered non-symbiotic. This discovery has great evolutionary significance for the understanding of symbiosis in foraminifera.

Currently, Doron is continuing her work on symbiosis in foraminifera under the joint supervision of Prof. Sigal Abramovich and Prof. Uri Abdu in the combined PhD track at Ben-Gurion University.

Jonathan Somer

MD/PhD student of **Prof. Shie Mannor**, Department of Electrical Engineering, Technion – Israel Institute of Technology, and **Prof. Uri Alon**, Department of Molecular Cell Biology, Weizmann Institute of Science

Dissertation topic: Understanding and Treating Cancer Using Data-Driven Dynamics Estimation and Control

Jonathan's research integrates concepts from machine learning, dynamical systems, and control theory to develop next-generation cancer therapies. Jonathan has pioneered a method for inferring temporal tissue dynamics from a single biopsy.



This groundbreaking work provides a foundation for understanding multicellular dynamics within the tumor microenvironment and designing precise treatments that modulate these dynamics. Jonathan's interdisciplinary work is mentored by Prof. Shie Mannor from the Faculty of Electrical and Computer Engineering at the Technion, and Prof. Uri Alon from the Faculty of Molecular Cell Biology at the Weizmann Institute.

Jonathan lives in Tel-Aviv with his wife, Adi, and baby boy, Lavi. His lifelong enthusiasm for technology and medicine is complemented by roles in various tech startups. His research endeavors began on his first day of medical school, mentored by Prof. Uri Shalit and Dr. Danny Eytan. This work culminated in the publication of five academic papers and the creation of computational models that shaped national policies during the COVID-19 crisis.

Elad Tzalik

PhD student of **Prof. Itai Benjamini**,
Department of Mathematics,
Weizmann Institute of Science

Dissertation topic: Hypergraphs, Algorithms
and Geometry in High Dimensions



Elad was born in 1996 and raised in Hadera. From an early age he was fascinated by mathematical problems and riddles, so during high school he pursued a BSc in computer science at the University of Haifa in the exclusive Etgar Program. During his military service, he deepened his knowledge by taking advanced math courses at the Open University, completing them *summa cum laude*. His passion for mathematics and computer science led him to earn an MSc in mathematics at the Weizmann Institute of Science, advised by Prof. Ran Tessler. He is currently studying for his PhD under the supervision of Prof. Itai Benjamini.

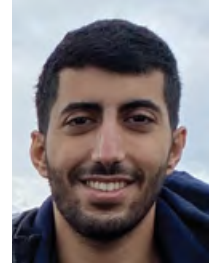
Elad's research focuses on combinatorics and geometry akin to computer science. In particular, he is interested in finding high-dimensional analogues to various graph constructions and their implications in computer science. He is also passionate about a wide range of topics, including Algorithms, Cryptography, Probability, Algebra, and Topology.

Elad resides in Ra'anana with his wife, Shir, and their two cats, Flip and Johnny. In recent years he has embraced Vipassana meditation, which brings him peace and joy.

Elad Zehavi

PhD student of **Prof. Avinoam Zadok**,
School of Engineering,
Bar-Ilan University

Dissertation topic: Quantum Nonlinear SU_{1,1}
Interferometer Over Standard Optical Fibers



Elad was born in 1993 and raised in Bnei-Brak. He completed his BSc in electrical engineering at Bar-Ilan University, with an emphasis on electro-optics and nano-electronics, graduating *cum laude* in 2020. He received the Dean's Award for Excellence in undergraduate studies twice and gained industrial experience as a student programmer.

After completing his MSc degree *cum laude* in electrical engineering at Bar-Ilan University under the supervision of Prof. Avi Zadok in 2022, Elad proceeded to doctoral studies with the Zadok group. His research focuses on opto-mechanical and non-linear interactions in optical fibers. His current project seeks to implement quantum sensing protocols using standard optical fibers and detectors, beyond the sensitivity that can be reached using classical light. Elad is a co-author of ten publications in scientific journals and has delivered several presentations at international conferences.

Elad lives in Givat Shmuel with his wife, Roni, and their baby girl, Shoham.

ADAMS Fellows

2005–2024



Shira Gavriely

PhD student of Prof. Shachar Richter *and* Dr. Ines Zucker,
Department of Materials Science and Engineering, Tel Aviv University

Dissertation topic: Biomaterials for Environmental Applications



Gal Keshet

PhD student of Prof. Nissim Benvenisty,
Department of Genetics, The Hebrew University of Jerusalem

Dissertation topic: Studying Pluripotency and Parental Imprinting Utilizing Human Pluripotent Stem Cells



Majd Machour

PhD student of Prof. Shulamit Levenberg,
Faculty of Biomedical Engineering, Technion – Israel Institute of Technology

Dissertation topic: 3D Bioprinting of Complex Multi-layered Tissue



Omri Matania

PhD student of Prof. Jacob Bortman,
Faculty of Mechanical Engineering, Ben-Gurion University of the Negev

Dissertation topic: Algorithms for Hybrid Models and Physical TDM for Zero-ault Shot Learning for Fault Diagnosis and Severity Estimation



Avishag Mytlis

PhD student of Dr. Yaniv Elkouby,
Faculty of Medicine, The Hebrew University of Jerusalem

Dissertation topic: Cilia Mechanisms in Egg and Sperm Development



Ron Ruimy

PhD student of Prof. Ido Kaminer,
Faculty of Electrical and Computer Engineering, Technion – Israel Institute of Technology

Dissertation topic: Free Electrons as a Resource for Quantum Technologies



Omri Shelef

PhD student of Prof. Doron Shabat,
Department of Organic Chemistry, Tel Aviv University

Dissertation topic: Design, Synthesis and Application of Chemiluminescent Probes for Bacterial Identification, ENPP Detection and DNA Sequencing



Evgenii Zheltonozhskii

PhD student of Prof. Netanel Lindner,
Department of Physics, Technion, Israel Institute of Technology

Dissertation topic: Condensed Matter and Materials Physics

2022–2023



Nitzan Aframian

PhD student of Prof. Avigdor Eldar,
Faculty of Life Sciences, Tel Aviv University

Dissertation topic: Communication and Cooperation in the Bacterio-phage Arms Race



Amir Burshtein

PhD student of Prof. Moshe Goldstein,
School of Physics and Astronomy, Tel Aviv University

Dissertation topic: Quantum Simulation of Many-Body Systems in Superconducting Circuits



Shir Cohen

PhD Student of Prof. Idit Keidar, Faculty of Computer Science,
Technion – Israel Institute of Technology

Dissertation topic: Distributed Services Under Attack



Matan Eilat

PhD student of Prof. Bo'az Klartag, Faculty of Mathematics and Computer Science,
Weizmann Institute of Science

Dissertation topic: Rigidity of Riemannian Embeddings of Discrete Metric Spaces



Omer Granek

PhD student of Prof. Yariv Kafri, Faculty of Physics,
Technion – Israel Institute of Technology

Dissertation topic: Bodies in an Active Fluid



Eliana Steinberg

PhD student of Prof. Ofra Benny, School of Pharmacy,
The Hebrew University of Jerusalem

Dissertation topic: Tumor-on-a-Chip: A Physiological Mimicking Method for Personalized Therapy in Cancer

2021–2022



Yonatan Hamo

PhD student of Prof. Milko van der Boom and Dr. Michal Lahav, Faculty of Chemistry,
The Weizmann Institute of Science

Dissertation topic: Nanoscale Thin Films and Devices: The Effect of Light, Magnetic and Electric Field on Charge Storage and Release



Noam Harel

PhD student of Prof. Adi Stern,
Faculty of Life Sciences, Tel Aviv University

Dissertation topic: The Mutational Spectra of Covid-19 and other Coronaviruses and their Impact on Viral Transmission Patterns



Noy Nechmad

PhD Student of Prof. Gabriel Lemcoff, Chemistry Department,
Ben-Gurion University of the Negev

Dissertation topic: Influence of Anionic Ligands in Ruthenium Olefin Metathesis Catalysts



Inbal Weisbord

PhD student of Dr. Tamar Segal-Peretz, Wolfson Department of Chemical Engineering,
Technion – Israel Institute of Technology

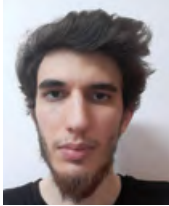
Dissertation topic: Block Copolymer Assembly in Micro and Nano Particles



Eyal Weiss

PhD student of Prof. Gal A. Kaminka, Department of Computer Science, Bar-Ilan University

Dissertation topic: Automated Planning with Runtime-Dependent Estimators



Yoav Zigdon

PhD student of Prof. Ramy Brustein, Physics Department, Ben-Gurion University of the Negev

Dissertation topic: Strings Near the Hagedorn Temperature and Inflationary Spacetimes

2020–2021



Dalya Baron

PhD student of Prof. Hagai Netzer, Department of Astrophysics, School of Physics and Astronomy, Tel Aviv University

Dissertation topic: The Role of Active Galactic Nuclei Feedback in Different Evolutionary Stages of Their Host Galaxies



Gil Bashan

PhD student of Prof. Avi Zadok, Faculty of Engineering, Bar-Ilan University

Dissertation topic: Opto-Mechanical Sensing Outside Standard Optical Fibers



Dana Binyamin

PhD student of Dr. Omry Koren, Azrieli Faculty of Medicine, Bar-Ilan University

Dissertation topic: The Fountain of Youth: How the Gut Microbiota Shapes Host Aging through the Epigenome



Yonadav Barry Ginat

PhD student of Prof. Vincent Desjacques and Prof. Hagai Perets, Physics Department, Technion – Israel Institute of Technology

Dissertation topic: Astrophysical and Cosmological Progenitors of Gravitational-Wave Sources and Their Environments



Noam Lifshitz

PhD student of Prof. Gil Kalai, Institute of Mathematics,
The Hebrew University of Jerusalem

Dissertation topic: Analytic Methods in Probability and Combinatorics



Dan Liraz

PhD student of Prof. Nir Tessler, Electrical Engineering Department, The Sara and Moshe Zisapel Nano-Electronic Center, Technion – Israel Institute of Technology

Dissertation topic: Physical Processes in Photo-Electric Devices Based on Organic Materials and Solution-Processed Ones



Noam Shahar

PhD student of Prof. Iftach Yacoby, School of Plant Wise Sciences and Food Security,
The George S. Weiss Faculty of Life Sciences, Tel Aviv University

Dissertation topic: Designing Synthetic Operons in Chloroplasts: Utilizing Operons for the Production of Biofuels and Other Foreign Pathways in Microalgal Plastids

2019–2020



Roie Dann

PhD student of Prof. Ronnie Kosloff, Fritz Haber Center for Molecular Dynamics,
Institute of Chemistry, Faculty of Sciences and Mathematics, The Hebrew University of Jerusalem.

Dissertation topic: Dynamical Perspectives of Quantum Thermodynamic Resources and Their Utility



Ron Efrat

PhD student of Dr. Oded Berger-Tal, Marco and Louise Mitrani Department of Desert Ecology (MDDE), Sde-Boker Campus, Ben-Gurion University of the Negev

Dissertation topic: The Effects of Learning and Experience on the Survival and Migration Proficiencies of Captive-Bred and Wild Vultures



Renan Gross

PhD student of Dr. Ronen Eldan, Faculty of Mathematics and Computer Science,
The Weizmann Institute of Science

Dissertation topic: Regularity and Mean-Fields Gibbs Distributions



Aviv Karnieli

PhD student of Prof. **Ady Arie**, Department of Physical Electronics,
School of Electrical Engineering, Tel Aviv University

Dissertation topic: Quantum Effects of Photons and Electrons



Yaron Laufer

PhD student of Prof. **Sharon Gannot**, Faculty of Engineering,
Bar-Ilan University

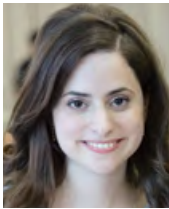
Dissertation topic: Bayesian Methods in Speech Processing



Lior Rotem

PhD student of Prof. **Gil Segev**, Rachel and Selim Benin School of Computer Science
and Engineering, The Hebrew University of Jerusalem

Dissertation topic: Foundations and Applications of Cryptography for
Messaging Platforms



Aseel Shomar

PhD student of Prof. **Naama Brenner**, The Wolfson Department of Chemical Engineering, and
Prof. **Omri Barak**, The Rappaport Faculty of Medicine, Technion – Israel Institute of Technology

Dissertation topic: Cell States and Transitions in Development and Cancer:
Insights from Learning Theory



Shai Tsesses

PhD student of Prof. **Guy Bartal**, Andrew & Erna Viterbi Faculty of Electrical
Engineering, Technion – Israel Institute of Technology

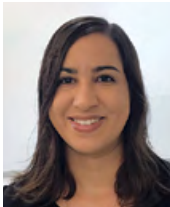
Dissertation topic: Topology and Angular Momentum Transfer Between Light and Matter
in Nanoscale Photonic Systems



Adar Adamsky

PhD student of Dr. **Inbal Goshen**, Edmond and Lily Safra Center for Brain Sciences (ELSC), The Hebrew University of Jerusalem

Dissertation topic: Dynamic Changes in Long-Term Memory Network Organization Underlie Systems Consolidation



Ayelet Arazi

PhD student of Prof. **Ilan Dinstein**, Department of Brain and Cognitive Sciences, Ben-Gurion University of the Negev

Dissertation topic: Neural Variability and Its Relationship with Perception, Attention and Working Memory



Yaron Ben-Ami

PhD student of Asst. Prof. **Avshalom Manela**, Faculty of Aerospace Engineering, Technion – Israel Institute of Technology

Dissertation topic: Effect of Thermal Boundary Conditions on Heat and Mass Transfer Processes in Rarefied Gas Flows



Anael Ben-Asher

PhD student of Prof. **Nimrod Moiseyev**, Schulich Faculty of Chemistry, Technion – Israel Institute of Technology.

Dissertation topic: Non-Hermitian Quantum Scattering Theory for Cold Molecular Collision Experiments



Yoav Levine

PhD student of Prof. **Amnon Shashua**, School of Computer Science and Engineering, The Hebrew University of Jerusalem

Dissertation topic: Bridging Deep Learning and Many-Body Physics via Tensor Networks



Itai Linial

PhD student of Prof. **Re'em Sari**, Racah Institute of Physics, Faculty of Sciences and Mathematics, The Hebrew University of Jerusalem

Dissertation topic: Common-Envelope Evolution of Binary Stars and Planetary Dynamics



Eran Lustig

PhD student of Prof. Mordechai (Moti) Segev, Faculty of Physics, Technion – Israel Institute of Technology

Dissertation topic: Topological Photonics – Finding and Describing Topological Phases in Classical and Quantum Optical Systems



David Mass

PhD student of Prof. Tali Kaufman, Department of Computer Science, Bar-Ilan University

Dissertation topic: High-Dimensional Expanders in the Theory of Computation

2017–2018



Leon Anavy

PhD student of Prof. Zohar Yakhini, Computer Science Department, Technion – Israel Institute of Technology

Dissertation topic: Computational Challenges in Synthetic Biology



Evgeniy Boyko

PhD student of Prof. Moran Bercovici and Prof. Amir D. Gat, Faculty of Mechanical Engineering, Technion – Israel Institute of Technology

Dissertation topic: Non-Uniform Electroosmotic Flow in Rigid and Elastic Microfluidic Configurations



Shachar Carmeli

PhD student of Dr. Dmitry Gourevitch, Department of Mathematics, Weizmann Institute of Science

Dissertation topic: Harmonic Analysis on Spherical Spaces



Tuvia Gefen

PhD student of Prof. Alex Retzker, Racah Institute of Physics, Faculty of Sciences and Mathematics, The Hebrew University of Jerusalem

Dissertation topic: Quantum Metrology and Computing with NV Centers and Trapped Ions



Bracha Laufer-Goldshtein

PhD student of Prof. Sharon Gannot (Bar-Ilan) and Prof. Ronen Talmon (Technion),
Faculty of Electrical Engineering, Bar-Ilan University

Dissertation topic: Manifold Learning Techniques for Source Localization
and Array Processing



Ofer Neufeld

PhD student of Prof. Oren Cohen, Department of Physics,
Technion – Israel Institute of Technology

Dissertation topic: Generation of High Harmonics with Fully Tunable Polarization



Inbal Oz

PhD student of Prof. Oded Hod and Prof. Avraham Nitzan, School of Chemistry,
Faculty of Exact Sciences, Tel Aviv University

Dissertation topic: Simulating Non-Equilibrium Thermodynamics in
Open Quantum Systems



Or Yair

PhD student of Prof. Ronen Talmon, Viterbi Faculty of Electrical Engineering,
Technion – Israel Institute of Technology

Dissertation topic: Geometric Learning for Data-Driven Analysis of
Dynamical Systems

2016–2017



Angelica Elkan

PhD student of Prof. Boris Rybtchinski, Department of Organic Chemistry,
Weizmann Institute of Science

Dissertation topic: Hybrid Materials Based on Organic Nanocrystals and Carbon
Nanotubes (CNTs)



Hezi Grisaro

PhD student of Prof. Avraham N. Dancygier, Faculty of Civil and Environmental
Engineering, Technion – Israel Institute of Technology

Dissertation topic: Response of a Structural Element to Combined Loading of
Explosion and Fragmentation Impacts



Yael Korem

PhD student of Prof. Uri Alon, Department of Molecular Cell Biology,
Weizmann Institute of Science

Dissertation topic: Optimal Division of Labor in Cells and Tissues



Gali Noti

PhD student of Prof. Noam Nisan, School of Computer Science & Engineering
and the Center for the Study of Rationality, The Hebrew University of Jerusalem

Dissertation topic: Behavioral Algorithmic Game Theory



Avia Raviv Moshe

PhD student of Prof. Yaron Oz, School of Physics and Astronomy,
Faculty of Exact Sciences, Tel Aviv University

Dissertation topic: Lifshitz Quantum Field Theories, Gravity and Hydrodynamics



Asael Roichman

PhD student of Prof. Haim Cohen, Faculty of Life Sciences,
Bar-Ilan University

Dissertation topic: Sirtuins in Aging and Metabolism



Alexander Shleyfman

PhD student of Prof. Carmel Domshlak, Faculty of Industrial Engineering and Management,
Technion – Israel Institute of Technology

Dissertation topic: Symmetry Breaking and Operator Pruning in Classical
Planning and Beyond



Amitai Yuval

PhD student of Prof. Jake Solomon, Department of Mathematics,
The Hebrew University of Jerusalem

Dissertation topic: Geodesics of Positive Lagrangians in Almost
Calabi-Yau Manifolds

2015–2016



Omri Azencot

PhD student of Prof. Mirela Ben-Chen, Computer Science Department, Technion – Israel Institute of Technology

Dissertation topic: Operator Representations in Geometry Processing



Izchak Baruch Goldshtein

PhD student of Prof. Moshe Lewenstein and Prof. Ely Porat, Department of Computer Science, Bar-Ilan University

Dissertation topic: Polynomial Lower Bounds on Algorithms and Data Structures



Barak Hirshberg

PhD student of Prof. Benny Gerber, School of Chemistry, The Hebrew University of Jerusalem

Dissertation topic: Structure, Interactions and Dynamics of Many-Atom Systems



Michael Kalyuzhny

PhD student of Prof. Ronen Kadmon, Department of Ecology, Evolution and Behavior, The Hebrew University of Jerusalem, and Prof. Nadav Shnerb, Department of Physics, Bar-Ilan University

Dissertation topic: A Theoretical and Empirical Analysis of Factors Affecting the Dynamics and Structure of Ecological Communities.



Michal Natan

PhD student of Prof. Ehud Banin and Prof. Shlomo Margel, Institute of Nanotechnology and Advanced Materials, Bar-Ilan University

Dissertation topic: Synthesis of Rechargeable N-halamine Nanoparticles and Determination of Their Antibacterial and Antibiofilm Activities



Eran Sagi

PhD student of Prof. Yuval Oreg, Department of Condensed Matter Physics, Weizmann Institute of Science

Dissertation topic: Strongly Interacting Topological Phases



Ido Sagi

PhD student of Prof. Nissim Benvenisty, Azrieli Center for Stem Cells and Genetic Research, The Hebrew University of Jerusalem

Dissertation topic: Genetic and Epigenetic Regulation in Human Pluripotent Stem Cells



Yinon Spinka

PhD student of Prof. Ron Peled, Department of Pure Mathematics, Tel Aviv University

Dissertation topic: Mathematical Models of Statistical Mechanics

2014–2015



Rivka Bekenstein

PhD student of Prof. Mordechai Segev, Faculty of Physics, Technion – Israel Institute of Technology

Dissertation topic: Gravitational Phenomena and Complex Wavepackets in Nonlinear Optical Systems



Sharon Fleischer

PhD student of Dr. Tal Dvir, Department of Molecular Microbiology and Biotechnology, Faculty of Life Science, Tel Aviv University

Dissertation topic: Engineering 3D Cardiac Stem Cell Based Patches for Treating Heart Disease



Yannai A. Gonczarowski

PhD student of Prof. Sergiu Hart and Prof. Noam Nisan, Institute of Mathematics, School of Computer Science & Engineering and Center for the Study of Rationality, The Hebrew University of Jerusalem

Dissertation topic: Aspects of Complexity and Simplicity in Economic Mechanisms



Ouri Karni

PhD student of Prof. Gadi Eisenstein, Faculty of Electrical Engineering, Technion – Israel Institute of Technology

Dissertation topic: Ultra-Fast Non-Linear Dynamic Processes in Nanometric Semiconductor Lasers and Optical Amplifiers



Jonathan Mosheiff

PhD student of Prof. Sharon Gannot (Bar-Ilan) and Prof. Ronen Talmon (Technion),
Faculty of Electrical Engineering, Bar-Ilan University

Dissertation topic: Forbidden Induced Subgraphs and their Structural Implications



Omri Ram

PhD student of Prof. Oren Sadot, Department of Mechanical Engineering,
Ben-Gurion University of the Negev

Dissertation topic: Experimental Study of Shock and Blast Wave Interaction with
a Rigid Porous Medium



Einat Seidel Posner

MD/PhD student of Prof. Ofer Mandelboim, Lautenberg Center for Immunology and
Cancer Research, The Hebrew University of Jerusalem

Dissertation topic: Viral Immune Evasion Mechanisms



Eliran Subag

PhD student of Prof. Ofer Zeitouni, Department of Mathematics,
Weizmann Institute of Science

Dissertation topic: Extreme Values and Extremal Processes of Gaussian Fields

2013–2014



Ariel Afek

PhD student of Dr. David Lukatsky, Department of Chemistry,
Ben-Gurion University of the Negev

Dissertation topic: Design Principles and Consequences of Nonconsensus
Protein-DNA Binding



Yoav Bauman

PhD student of Prof. Ofer Mandelboim, Lautenberg Center for Immunology and
Cancer Research, The Hebrew University of Jerusalem

Dissertation topic: Pathogen Recognition by Natural Killer Cells



Ronen Dar

PhD student of Prof. Meir Feder and Prof. Mark Shtauf,
School of Electrical Engineering, Tel Aviv University

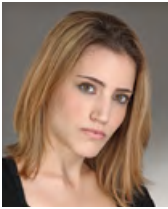
Dissertation topic: Information Theory in Optical-Fiber Communications



Anna Frishman

PhD student of Prof. Gregory Falkovich, Department of Physics of Complex Systems,
Weizmann Institute of Science

Dissertation topic: A Search for Statistical Laws in Turbulent Systems



Livnat Jerby Arnon

PhD student of Prof. Eytan Ruppín, School of Computer Science,
Tel Aviv University

Dissertation topic: Genome-Scale Modeling of Cancer Genetics and
Metabolism Toward the Identification of Selective Anticancer Treatments



Assaf Manor

PhD student of Prof. Carmel Rotschild, Faculty of Mechanical Engineering,
Technion – Israel Institute of Technology

Dissertation topic: Thermodynamic Light Management for Third
Generation Photovoltaics



Sivan Refaely-Abramson

PhD student of Prof. Leeor Kronik, Department of Materials and Interfaces,
Weizmann Institute of Science

Dissertation topic: A Generalization of the Optimally-Tuned Range-Separated
Hybrid Scheme to the Solid-State



Liran Rotem

PhD student of Prof. Vitali Milman, School of Mathematical Sciences,
Tel Aviv University

Dissertation topic: Asymptotic Geometric Analysis: Log-Concavity,
 α -Concavity, Quasi-Concavity



Eitan Schechtman

PhD student of Prof. Hagai Bergman, The Interdisciplinary Center for Neural Computation (ICNC), The Hebrew University of Jerusalem

Dissertation topic: The Neural Correlates of Basal Ganglia Abnormalities in the Chronic Phencyclidine (PCP) Primate Model of Schizophrenia



Avishay Tal

PhD student of Prof. Ran Raz, Department of Computer Science and Applied Mathematics, Weizmann Institute of Science

Dissertation topic: Analysis of Boolean Functions in Theoretical Computer Science

2012–2013



Tslil Ast

PhD student of Dr. Maya Schuldiner, Department of Molecular Genetics, Weizmann Institute of Science

Dissertation topic: Uncovering the Translocation and Quality Control Mechanisms of Glycosylphosphatidylinositor (GPL) Anchored Proteins



Assaf Ben Moshe

PhD student of Prof. Gil Markovich, Department of Chemical Physics, Tel Aviv University

Dissertation topic: Chiroptical Effects Induced in Metal and Semiconductor Nanoparticles



Miri Krupkin

PhD student of Prof. Ada Yonath, Department of Structural Biology, Weizmann Institute of Science

Dissertation topic: Towards the Determination of the Structure of the Mycobacterium Smegmatis Ribosome and Studies on the Properties of the Prebiotic Ribosome



Nir Lazarovich

PhD student of Prof. Michah Sageev, Department of Mathematics, Technion – Israel Institute of Technology

Dissertation topic: Non-Positively Curved Homogeneous Polygonal Complexes



Or Ordentlich

PhD student of Prof. Uri Erez, School of Electrical Engineering, Tel Aviv University

Dissertation topic: Robust Lattice Schemes for Multi-User Communication Networks



Liel Sapir

PhD student of Prof. Daniel Harries, Institute of Chemistry and The Fritz Haber Research Center, The Hebrew University of Jerusalem

Dissertation topic: Modeling Osmolyte-Induced Conformational Changes in Biomacromolecules



David Tsivion

PhD student of Prof. Ernesto Joselevich, Department of Materials and Interfaces, Weizmann Institute of Science

Dissertation topic: Guided Growth of Horizontal Nanowires



Erez Zohar

PhD student of Prof. Benni Reznik, School of Physics and Astronomy, Tel Aviv University

Dissertation topic: Quantum Simulations of Quantum Field Theories

2011–2012



Dmitry Batenkov

PhD student of Prof. Yosef Yomdin, Department of Mathematics, Weizmann Institute of Science

Dissertation topic: Algebraic Reconstruction of Geometric Models from Integral Measurements



Avraham Braun

PhD student of Prof. Jeffrey Gordon, Department of Solar Energy and Environmental Physics, Ben-Gurion University of the Negev

Dissertation topic: The Physics of High Carrier Injection Rates in Concentrator Photovoltaics



Sophia Buhbut

PhD student of Prof. Arie Zaban, Institute of Chemistry, Bar-Ilan University

Dissertation topic: FRET Mechanism Based on Nanomaterials in Dye-Sensitized Solar Cells: Synthesis, Characterization and Applications



Amir Erez

PhD student of Prof. Yigal Meir, Department of Physics, Ben-Gurion University of the Negev

Dissertation topic: Superconductor to Insulator Transition in Thin Films



Daphna Nachmani

PhD student of Prof. Ofer Mandelboim, Lautenberg Center for Immunology and Cancer Research, The Hebrew University of Jerusalem

Dissertation topic: MicroRNAs in Immune Regulation: Viral Mimicry of Host Mechanisms



Amir Nevet

PhD student of Prof. Meir Orenstein, Department of Electrical Engineering, Technion – Israel Institute of Technology

Dissertation topic: Two-Photon Processes in Micro and Nano Semiconductor Structures



Doron Puder

PhD student of Prof. Nati Linial, Einstein Institute of Mathematics, The Hebrew University of Jerusalem

Dissertation topic: The Combinatorial, Algebraic and Topological Aspects of Word Maps



Eran Small

PhD student of Prof. Yaron Silberberg, Department of Physics of Complex Systems, Weizmann Institute of Science

Dissertation topic: Statistical Properties of Light Propagating in Non-Linear Systems



Hadas Soifer

PhD student of Prof. Nirit Dudovich, Department of Physics of Complex Systems, Weizmann Institute of Science

Dissertation topic: Probing Electronic Wavefunctions via High Harmonic Generation



Amir Wand

PhD student of Prof. Sanford Ruhman, Department of Chemistry, The Hebrew University of Jerusalem

Dissertation topic: Investigation of the Photochemistry of Retinal Proteins and Model Systems Using Novel Techniques of Ultrafast Spectroscopy: Resolving the Dynamics as Well as Structural Information of the Excited States

2010–2011



Avital Adler

PhD student of Prof. Hagai Bergman, Interdisciplinary Center for Neural Computation (ICNC), The Hebrew University of Jerusalem

Dissertation topic: Value Encoding in the Striatum in View of Serotonin Neurotransmission



Leonid Barenboim

PhD student of Prof. Michael Elkin, Department of Computer Science, Ben-Gurion University of the Negev

Dissertation topic: Efficient Network Utilization in Locality-Sensitive Distributed Algorithms



Arren Bar-Even

PhD student of Prof. Ron Milo, Department of Plant Sciences, Weizmann Institute of Science

Dissertation topic: The Design, Analysis and Testing of Synthetic Carbon Fixation Cycles



Omer Bobrowski

PhD student of Prof. Robert J. Adler, Department of Electrical Engineering, Technion – Israel Institute of Technology

Dissertation topic: Some Topics in the Algebraic Topology of Random Fields



Ronit Bustin

PhD student of Prof. Shlomo Shamai, Department of Electrical Engineering, Technion – Israel Institute of Technology

Dissertation topic: The I-MMSE Approach for Multi-Terminal Problems in the Gaussian Regime



Klim Efremenko

PhD student of Prof. Amnon Ta-Shma and Prof. Oded Regev, Department of Computer Science, Tel Aviv University

Dissertation topic: Algebraic Constructions in Computational Complexity



Yoav Livneh

PhD student of Prof. Adi Mizrahi, Department of Neurobiology, The Hebrew University of Jerusalem

Dissertation topic: Adult Neurogenesis: From Synapse Formation Through Sensory Coding to Animal Behavior



Itai Roffman

PhD student of Prof. Eviatar Nevo and Prof. Avraham Ronin, The International Graduate Center of Evolution, University of Haifa

Dissertation topic: Studying Suite of *Homo* Traits in *Pan*: Supporting Cultural and Genetic Evidence for their Inclusion in the *Homo* Genus



Yoav Oved Rosenberg

PhD student of Prof. Jiwchar Ganor, Department of Geological and Environmental Sciences, Ben-Gurion University of the Negev

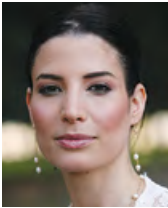
Dissertation topic: The Fate of Radium in Evaporitic Systems



Osip Schwartz

PhD student of Prof. Dan Oron, Department of Physics of Complex Systems, Weizmann Institute of Science

Dissertation topic: Nonlinear Microscopy with Nanoparticles



Adi Sheinfeld

PhD student of Prof. Avishay Eyal, Electrical Engineering, Tel Aviv University

Dissertation topic: Optical Detection of Alzheimer's Disease Via Ocular Spectroscopy

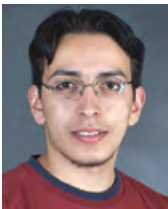


Avital Swisa

PhD student of Prof. Yuval Dor, Department of Developmental Biology and Cancer Research, Faculty of Medicine, The Hebrew University of Jerusalem

Dissertation topic: Role of LKB1 in Pancreatic Beta Cell Dynamics

2009–2010



Monther Abu-Remaileh

PhD student of Prof. Yehudit Bergman, Department of Genetics, The Hebrew University of Jerusalem

Dissertation topic: Understanding the Molecular Mechanism of Oct-3/4 Oncogenicity



Danny Ben-Zvi

PhD student of Prof. Naama Barkai and Prof. Ben-Zion Shilo, Department of Molecular Genetics, Weizmann Institute of Science

Dissertation topic: Scaling and Robustness in Embryonic Development



Oded Berger-Tal

PhD student of Prof. David Saltz, Department of Desert Ecology, Ben-Gurion University of the Negev

Dissertation topic: Movement Ecology of Persian Fallow Deer



Ronen Gabizon

PhD student of Prof. Assaf Friedler, Institute of Chemistry,
The Hebrew University of Jerusalem

Dissertation topic: Activating Proteins by Shifting their Oligomerization
Equilibrium: A New Approach to Drug Design



Alex Hayat

PhD student of Prof. Meir Orenstein, Faculty of Electrical Engineering,
Technion – Israel Institute of Technology

Dissertation topic: Applications of Multi-Photon Processes for Semiconductor
Quantum Photonics



Efrat Mashiach

PhD student of Prof. Haim Wolfson and Prof. Ruth Nussinov, School of Computer
Science, Tel Aviv University

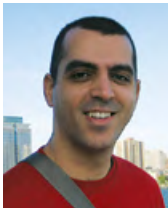
Dissertation topic: Structural Bioinformatics: Flexible Molecular Docking



Or Meir

PhD student of Prof. Oded Goldreich, Department of Computer Science and Applied
Mathematics,, Weizmann Institute of Science

Dissertation topic: Combinatorial Construction of Probabilistic Proof Systems



Moshe Mishali

PhD student of Prof. Yonina Eldar, Faculty of Electrical Engineering,
Technion – Israel Institute of Technology

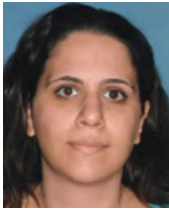
Dissertation topic: Compressive Processing of Analog Signals



Uri Roll

PhD student of Prof. Lewi Stone, Department of Zoology,
Tel Aviv University

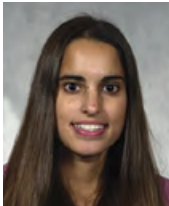
Dissertation topic: Spatial Perspectives of Epidemiological and
Ecological Problems



Sivan Sabato

PhD student of Prof. Naftali Tishby, School of Computer Science and Engineering, The Hebrew University of Jerusalem.

Dissertation topic: Supervised Learning with Partial Information



Efrat Shema

PhD student of Prof. Moshe Oren, Department of Molecular Cell Biology, Weizmann Institute of Science

Dissertation topic: RNF20 as a Novel Tumor Suppressor: Exploring its Roles in Transcriptional Regulation, Formation and Progression of Cancer, Senescence and Development

2008–2009



Keren Censor

PhD student of Prof. Hagit Attiya, Computer Science Department, Technion – Israel Institute of Technology

Dissertation topic: Probabilistic Methods in Distributed Computing



Emanuele Dalla Torre

PhD student of Dr. Ehud Altman, Department of Condensed Matter Physics, Weizmann Institute of Science

Dissertation topic: Strongly Correlated States in Ultra-Cold Atoms



Noam Gross

PhD student of Prof. Lev Khaykovich, Department of Physics, Bar-Ilan University

Dissertation topic: Nonlinear Dynamics and Interactions of Bright Matter-Wave Solitons in a Bose-Einstein Condensate.



Ishay Haviv

PhD student of Prof. Oded Regev, School of Computer Science, Tel Aviv University

Dissertation topic: Combinatorics and Theoretical Aspects of Computer Sciences: Complexity of Lattice Problems



Amir Ingber

PhD student of Prof. Meir Feder, School of Electrical Engineering,
Tel Aviv University

Dissertation topic: Coding Methods and Bounds for the Bandwidth -
Limited Regime



Mor Mordechai Peretz

PhD student of Prof. Shmuel Ben-Yaakov, Department of Electrical & Computer
Engineering, Ben-Gurion University of the Negev

Dissertation topic: Time Domain Design of Digital Controllers for PWM Converters



Michael Orlov

PhD student of Prof. Moshe Sipper, Department of Computer Science,
Ben-Gurion University of the Negev

Dissertation topic: Evolutionary Computation



Eran Segev

PhD student of Prof. Eyal Buks, Faculty of Electrical Engineering,
Technion – Israel Institute of Technology

Dissertation topic: Back-Reaction Cooling and Quantum Phenomena in
Nanomechanical Resonators



Gil Segev

PhD student of Prof. Moni Naor, Department of Computer Science and Applied Mathematics,
Weizmann Institute of Science

Dissertation topic: The Complexity of Resilient Sketches



Reut Shema

PhD student of Prof. Yadin Dudai, Department of Neurobiology,
Weizmann Institute of Science

Dissertation topic: The Role of PKMzeta in Long Term Memory Storage in
the Rat Brain

2007–2008



Avraham Ben-Aroya

PhD student of Prof. Oded Regev and Prof. Amnon Ta-Shma,
School of Computer Science, Tel Aviv University

Dissertation topic: Quantum Computation and Quantum Information



Shai Carmi

PhD student of Prof. Shlomo Havlin, Department of Physics,
Bar-Ilan University

Dissertation topic: Complex Networks: Theory and Applications



Chen Davidovich

PhD student of Prof. Ada Yonath, Department of Structural Biology,
Weizmann Institute of Science

Dissertation topic: Ribosome Structure and Function



Shahar Dobzinski

PhD student of Prof. Noam Nisan, School of Computer Science and Engineering,
The Hebrew University of Jerusalem

Dissertation topic: The Power of Approximations in Mechanism Design



Moshe Goldstein

PhD student of Prof. Richard Berkovits, Department of Physics,
Bar-Ilan University

Dissertation topic: Interference Effects in Interacting Mesoscopic Systems



Amir Goren

PhD student of Prof. Gil Ast, Department of Human Molecular Genetics and Biochemistry, Tel Aviv University

Dissertation topic: Inferring Regulatory Elements of Splicing Using Comparative Genomics



Dan Hermelin

PhD student of Prof. Gad M. Landau, Department of Computer Science, University of Haifa

Dissertation topic: Algorithmic Challenges in RNA Comparative Analysis



Yoav Lahini

PhD student of Prof. Yaron Silberberg, Faculty of Physics, Weizmann Institute of Science

Dissertation topic: Disordered Nonlinear Systems



Guy Ron

PhD student of Prof. Eliezer Piasetzky, Department of Physics, Tel Aviv University

Dissertation topic: Measurement of the Proton Elastic Form Factors at Low Q²



Avraham Saig

PhD student of Prof. Ehud Ahissar and Dr. Amos Arieli, Department of Neurobiology, Weizmann Institute of Science

Dissertation topic: Guiding Principles for Sensory Substitution: From Vision to Touch

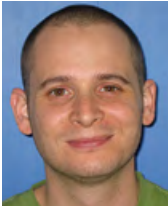


Alexander Sodin

PhD student of Prof. Vitali Milman, School of Mathematical Sciences, Tel Aviv University

Dissertation topic: Probabilistic Methods in Asymptotic Geometric Analysis

2006–2007



Haim Beidenkopf

PhD student of **Prof. Eli Zeldov**, Faculty of Physics,
Weizmann Institute of Science

Dissertation topic: Vortex Thermodynamics in High-Temperature Superconductors



Liat Benmoyal Segal

PhD student of **Prof. Hermona Soreq**, Department of Biological Chemistry,
and **Prof. Hagai Bergman**, Department of Physiology, The Hebrew University of Jerusalem

Dissertation topic: The Role of the Cholinergic System in the Pathogenesis of Parkinson's Disease



Yael Elbaz

PhD student of **Prof. Shimon Schuldiner**, Department of Biological Chemistry,
The Hebrew University of Jerusalem

Dissertation topic: Structure-Function Study of Multidrug Transporters



Olga Khersonsky

PhD student of **Prof. Dan Tawfik**, Faculty of Chemistry,
Weizmann Institute of Science

Dissertation topic: Mechanistic Enzymology: From Classical Tools to Directed Evolution



Dana Moshkovitz

PhD student of **Prof. Ran Raz**, Faculty of Mathematics and Computer Science,
Weizmann Institute of Science

Dissertation topic: Probabilistically Checkable Proofs



Ariel Procaccia

PhD student of **Prof. Jeffrey S. Rosenschein**, School of Computer Science and Engineering,
The Hebrew University of Jerusalem

Dissertation topic: The Theoretical Foundation of Multi-Agent Systems (MAS)



Carmel Rotschild

PhD student of Prof. Moti Segev, Physics Department,
Technion – Israel Institute of Technology

Dissertation topic: Soliton Interactions in Nonlocal Nonlinear Media



Ofer Shayevitz

PhD student of Prof. Meir Feder, School of Electrical Engineering,
Tel Aviv University

Dissertation topic: Universal Communications with Feedback



Amir Shlomai

PhD student of Prof. Yosef Shaul, Faculty of Biochemistry,
Weizmann Institute of Science

Dissertation topic: Metabolic Alterations in the Liver and Hepatitis B Virus Gene Expression

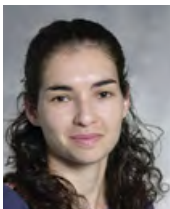


Noam Stern

PhD student of Prof. Ofer Mandelboim, Lautenberg Center for Immunology and
Cancer Research, The Hebrew University of Jerusalem

Dissertation topic: Natural Killer (NK) Cells

2005–2006



Yael Eshed-Eisenbach

PhD student of Prof. Elior Peles, Department of Molecular Cell Biology,
Weizmann Institute of Science

Dissertation topic: Neuro-Glial Interactions



Nathan Keller

PhD student of Prof. Gil Kalai, Einstein Institute of Mathematics,
The Hebrew University of Jerusalem

Dissertation topic: Probabilistic Combinatorics and Its Relations with Harmonic Analysis



Tal Lev-Ami

PhD student of Prof. Shmuel Sagiv, School of Computer Science,
Tel Aviv University

Dissertation topic: Efficient Transformers for the Verification of Heap
Manipulating Programs



Raz Palty

PhD student of Dr. Israel Sekler, Department of Physiology and Cell Biology,
Ben-Gurion University of the Negev

Dissertation topic: Characterization of the Novel Exchanger NCLX – A FLJ2233
Gene Product



Sharon Shwartz

PhD student Prof. Moti Segev, Physics Department,
Technion – Israel Institute of Technology

Dissertation topic: Nonlinear Optics in CZT:V

האקדמיה הלאומית הישראלית למדעים
المجمع الوطني الإسرائيلي للعلوم والآداب
THE ISRAEL ACADEMY OF SCIENCES AND HUMANITIES



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