

CURRICULUM VITAE

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DATE AND PLACE OF BIRTH July 26th, 1963, United States of America
DATE OF ARRIVAL IN ISRAEL November 1967

Education

1981 - 1984 Tel Aviv University, Tel Aviv, Israel
Physics, B. Sc.
1988 - 1991 Tel Aviv University, Tel Aviv, Israel
Nuclear Physics, M.Sc.
 Master's Thesis title: The surface energy of the quark-gluon plasma
 Supervisor: Prof. Benjamin Svetitsky
1991 – 1997 Tel Aviv University, Tel Aviv, Israel
 Doctoral Dissertation: **Nuclear Physics, Ph.D.**
 Supervisors: Nuclear filtering in wide angle exclusive scattering
 Prof. Eli Piasetzky and Prof. Jonas Alster

Academic and Professional Experience**Professional Experience**

1997 - 2001 Soreq NRC
Solid State Detectors and Cameras, Research Physicist

Electronic and mechanical integration, physical evaluations image quality experiments, Monte Carlo (MCNP) simulations.

Feasibility studies for a solid state gamma camera compatible with MRI. Proved that CdZnTe detectors function within magnetic fields.

MCNP simulations and experimental data analysis for a high-energy, high-efficiency spectrometer based on CdZnTe detectors.

Developed a code for solving the Laplace equation with proper boundary conditions, performed 3D calculations of the induced charge in a finite size CdZnTe detector with a segmented anode.

Participated in experiments at PSI that investigated the angular and energy distributions of spallation neutrons.

2001 Soreq NRC

NUCAM Gamma Camera, Project Manager

Head of the solid state gamma camera project, NUCAM, a collaboration of Soreq NRC, eV Products and Elgems to build next generation gamma cameras based on CdZnTe detectors.

Completed integration of the camera and laboratory trials at Elgems and preparations for clinical trials at hospitals.

2002-2008 Soreq NRC

SARAF Project, Deputy Manager

Deputy Project Manager of the Soreq Applied Research Accelerator facility, SARAF, a national infrastructure for basic and applied scientific research, under construction at Soreq NRC, based on a high-power, superconducting proton and deuteron accelerator.

Lead technical negotiations with national and international companies that built the accelerator and its infrastructure, and was the technical POC with the accelerator contractor.

Responsible for the facility control systems. Performed the detailed design of the personal safety system of SARAF and supervised its development, installation, and commissioning and safety validation.

Responsible for the accelerator's beam diagnostic systems. Developed a novel beam halo monitor based on an annular array of LiF detectors and tested it successfully in the WIS Pelletron accelerator.

2008-2011 Soreq NRC

SARAF Project, Manager

Manager

Project Manager of the Accelerator Construction for the Soreq Applied Research Accelerator facility, SARAF.

Headed ~10 workers (scientists, engineers and technicians)

Brought Phase I of SARAF into operation and led the effort to secure the funds for Phase II and perform its preliminary design.

We were world-first to accelerate a continuous wave (CW) proton beam in the 3-4 MeV range through superconducting Half-Wave Resonators, and reached unprecedented beam currents of ~1 mA,

Led the activities to position SARAF as a scientific infrastructure for the Israeli and international scientific communities, by setting systematic operation procedures, giving seminars and lectures at various conferences and institutions, and promoting national and international collaborations.

2011-2017 Soreq NRC**Nuclear Physics and Engineering Division, Head**

Head of Nuclear Physics and Engineering Division at Soreq NRC.

Member of Soreq NRC's management.

The Division includes the Soreq Applied Research Accelerator Facility (SARAF), the Soreq Research Reactor IRR1, the Department of Non Destructive Testing and the Department of Diagnostics, Simulations and Software.

2017-Now Tel Aviv University**Department of Particle Physics, Visiting Associate Professor**

Initiated and leading a program to research neutron-rich fission fragments, which is planned to include experiments at SARAF, the FRS Ion Catcher at GSI, Darmstadt, Germany, and the IGISOL facility at the University of Jyvaskyla, Finland.

Spokesperson of Experiment S472 at GSI – ‘A Novel Method for Measuring beta-Delayed Neutron Emission’, approved by GSI-PAC pending beam availability.

Leading principal investigator of a funded Ministry of Energy project to construct a knowledge infrastructure of neutron induced fission in Israel, whose main pillar will be a research facility for neutron induced fission and exotic fission-fragments at SARAF-II.

Created and taught a new graduate elective course: ‘Nuclear Physics Far from Stability’, which includes nuclear structure models and reactions, their role in astrophysical nucleosynthesis, and modern methods to generate and research them.

Active Participation In Scientific Meetings

Year	Name of Meeting, City, Country	Detailed Activity
1995	Annual AGS Users Meeting, Upton, USA	Speaker
1997	Intersections Between Particle and Nuclear Physics, 6 th Conference, Big Sky, USA	Speaker
1999	SPIE Conference on Penetrating Radiation Systems and Applications, Denver, USA	Speaker
2000	IEEE Nuclear Science Symposium and Medical Imaging Conference, Lyon, France	Speaker
2002	21 st Conference of the Nuclear Societies in Israel, Haifa, Israel	Speaker
2004	22 nd Conference of the Nuclear Societies in Israel, Dead Sea, Israel	Speaker

2005	Workshop on Accelerator Operations, WAO2005, Chicago, USA	Invited Speaker
2006	23 rd Conference of the Nuclear Societies in Israel, Dead Sea, Israel	Speaker, Session Chair
2006	23 rd Linear Accelerator Conference, LINAC 2006, Knoxville, USA	Posters
2007	53 rd Annual Meeting of the Israel Physical Society, Rehovot, Israel	Conference Co-Chair
2007	Workshop on Accelerator Operations, WAO2007, Trieste, Italy	Invited Speaker
2008	54 th Annual Meeting of the Israel Physical Society, Beer-Sheva, Israel	Scientific Organizing Committee
2008	11 th European Particle Accelerator Conference, EPAC08, Genoa, Italy	Poster
2008	24 th Linear Accelerator Conference, LINAC 2008, Victoria, Canada	Invited Speaker
2008	SARAF Workshop 2008, Maale Hachamisha, Israel	Invited Speaker
2009	55 th Annual Meeting of the Israel Physical Society, Ramat-Gan, Israel	Scientific Organizing Committee
2009	SPIRAL2 Week 2009, Caen, France	Invited Speaker
2009	Particle Accelerator Conference, PAC 2009, Vancouver, Canada	Poster
2009	14 th International Conference on RF Superconductivity, SRF 2009, Berlin, Germany	Invited Speaker
2010	25 th Linear Accelerator Conference, LINAC10, Tsukuba, Japan	International Organizing Committee, Session Chair
2011	2 nd International Workshop on Fast Neutron Detectors and Applications, FNDA 2011, Ein Gedi, Israel	Invited Speaker
2011	2 nd International Workshop on Accelerator Radiation Induced Activation, ARIA2011, Maale Hachamisha, Israel	Organizing Committee
2012	26 th Linear Accelerator Conference, LINAC12, Tel-Aviv, Israel	Conference Chair
2013	59 th Annual Meeting of the Israel Physical Society, Rehovot, Israel	Review Session Chair
2014	27 th Linear Accelerator Conference, LINAC14, Geneva, Switzerland	International Organizing Committee
2015	High Power Proton Accelerators (HPPA) Mini-Workshop, Lanzhou, China	Session Chair

2016	26 th International Nuclear Physics Conference, INPC 2016, Adelaide, Australia	Speaker
2017	Research Workshop of the Israel Science Foundation - Study of High-Density Nuclear Matter With Hadron Beams, Rehovot, Israel	Session Chair
2017	NUSTAR Week 2017, Ljubljana, Slovenia	Invited Speaker
2017	63 rd Annual Meeting of the Israel Physical Society, Haifa, Israel	Poster
2018	NUSTAR Annual Meeting 2018, GSI, Darmstadt, Germany	Invited Speaker
2018	The 29 th Conference of the Nuclear Societies in Israel, Herzeliya, Israel	Speaker
2018	The 22 nd International Conference on Few-Body Problems in Physics (FB22), Caen, France	Invited Speaker
2018	International Workshop on Spin Physics at NICA (SPIN-Praha-2018), Prague, Czech Republic	Invited Speaker
2018	23 rd International Spin Symposium (Spin 2018), Ferrara, Italy	Invited Speaker, Session Chair
2019	2019 International Conference on Nuclear Data for Science and Technology (ND2019), Beijing, China	Speaker
2019	Workshop on new sources of ionizing radiation and accelerators in Israel and their applications, Israel Academy of Sciences, Jerusalem, Israel	Invited Speaker
2019	International Workshop on Stopping and Manipulation of Ions and related topics (SMI2019), Montreal, Canada	Invited Speaker

Academic and Professional Awards

TAU Grants

Nuclear Physics Institute Grant, May 2017, 'Measurement of Neutron-Rich Exotic Isotopes Properties', 14,500 NIS

Nuclear Physics Institute Grant, July 2018, 'Fission based experiments at SARAF and GSI', 8,000 NIS

External Grants

Ministry of Energy Research Grant, 2018-2020, 'A Knowledge Infrastructure for Neutron Induced Fission in Israel', 700,000 NIS

Scholarships

1997-2002 Katzir Scholarship

Membership in Professional Societies

2005-2013	Israel Physical Society (IPS) Council	Treasurer 2008-2010
2009-2016	Linear Accelerator Conference International Organizing Committee (LINAC IOC)	Chair 2010-2012
2013-2017	The National Committee for Nuclear Physics of the Israel Academy of Sciences and Humanities	
2013-2016	Pazy Foundation Steering Committee	
2018 -	NUSTAR Collaboration Council	
2019 - 2021	IAEA's Standing Advisory Group on Nuclear Applications (SAGNA)	

Doctoral Students Supervised by Candidate

2009-2013	Dr. Michal Brandis	Physics, Development of Gamma-Ray Detector for Z-Selective Radiographic Imaging	Co-supervisor with Prof. Eliyahu Friedman, Hebrew University at Jerusalem
2010-2014	Dr. Sergey Vaintraub	Physics, Development of advanced methods for precision measurements of the beta-neutrino correlation	Co-supervisor with Prof. Michael Hass, Weizmann Institute of Science
2011-2015	Dr. Ilan Eliyahu	Nuclear Engineering, Kinetic Modeling of the LiF:Mg,Ti TL System Including Defect Creation: Implications to, and Development of Track Structure Theory Calculations of Heavy Charged Particle Radiation Effects	Co-supervisor with Prof. Yigal Horowitz, Ben Gurion University of the Negev

PhD Follow-up Committee Membership

2012-2014	Dr. Shlomi Halfon	Hebrew University at Jerusalem
2012-2015	Dr. Gitai Feinberg	Hebrew University at Jerusalem
2016-2018	Dr. Moshe Tessler	Hebrew University at Jerusalem
2018-Now	Ms. Ayala Glick Magid	Hebrew University at Jerusalem

PhD Examination Committee Membership

2018	Dr. Ore Gottlieb	Tel Aviv University
2018	Dr. Benjamin Bromberger	Humboldt University of Berlin

M.Sc Examination Committee Membership

2019	Mr. Dolev Roitman	Tel Aviv University
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