

CURRICULUM VITAE

• Personal details

Name: Lior Arazi

Date and place of birth: March 11, 1971, Haifa, Israel

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• Education

B.Sc.: 1989-1992, Hebrew University, IDF Talpiot Program, Physics and Mathematics (cum laude)

M.Sc.: 1993-2001 (parallel to military service, see below), Tel Aviv University (TAU), Physics (cum laude). Advisors: Prof. Itzhak Kelson (TAU) and Prof. Dov Shvarts (NRCN). Thesis title: "A Drag-Buoyancy Based Study of the Late-Time Rayleigh-Taylor and Richtmyer-Meshkov Instabilities Scaling Laws".

Ph.D.: 2001-2008 (parallel to founding a startup company, see below), TAU, Physics. Advisor: Prof. Itzhak Kelson. Thesis title: "Diffusing Alpha-emitters Radiation Therapy – Theoretical and Experimental Dosimetry".

• Employment history

1/10/2017 – present: Senior Lecturer, Nuclear Engineering Unit, Faculty of Engineering Sciences, Ben Gurion University.

2015-2017: Associate Staff Scientist, Physics Core Facilities, Faculty of Physics, WIS.

2012–2015: Senior Intern with Prof. Amos Breskin, Department of Particle Physics and Astrophysics, WIS. Detector Physics.

2010-2012: Post-doctoral fellow, Department of Particle Physics and Astrophysics, WIS. Advisor: Prof. Amos Breskin. Detector physics.

2009-2010: Post-doctoral fellow, Chemical Physics Department, WIS. Advisor: Dr. Barak Dayan. Experimental quantum optics.

2005–2011: Senior Physicist and Co-Founder, Althera Medical Ltd. Alpha-particle based cancer therapy.

2001-2008: Ph.D. student, School of Physics and Astronomy, Raymond and Beverly Sackler Faculty of Exact Sciences, TAU. Advisor: Prof. Itzhak Kelson.

1992–2001: Research and analysis officer and section head in various roles in the IDF, including two years as a physicist in NRCN. Retired at the rank of Major (M.Sc. studies done in parallel to military service).

1989-1992: Cadet in IDF Talpiot Program (B.Sc. student)

- **Professional activities**

- (a) Ad-hoc reviewer for journals

- Journal of Instrumentation (JINST)

- (b) Membership in scientific societies/collaborations

- Member of the NEXT collaboration for neutrinoless double beta decay searches in ^{136}Xe .
 - Member of the DARWIN collaboration on R&D of a future multi-ton liquid xenon dark matter detector.
 - Member of CERN RD51 collaboration on R&D of Micro-Pattern Gaseous Detectors.
 - Israeli representative (one of two) in the EU COST action on Fast Advanced Scintillator Timing (FAST).
 - Previously: member of the XENON100 and XENON1T dark matter experiments and of the CALICE collaboration for the development of future hadronic calorimeters.

- **Educational activities**

- (a) Courses taught

- Present: Co-lecturer in a graduate course on experimental particle cosmology at WIS (together with Dr. Ran Budnik – I'm responsible for classes on detector physics and technology).
 - 2012–2016: Lecturer: Physics for biology and medicine students (mechanics, electricity and magnetism) – preparatory course, Tel Aviv University
 - 2001–2004: Teaching assistant, Tel Aviv University. Courses:
 - Physics for B.Sc. biology students (2001-2003)

- Waves for B.Sc. physics students (2003)
 - Classical Physics 2 (electricity and magnetism) for B.Sc. physics students (2004)
- (b) Research students mentored (in all cases I was not entitled to be a formal supervisor; however, in practice I was closely supervising and guiding the students in their research):
- During my Ph.D. studies at TAU I mentored two M.Sc. students in physics: Hadas Bittan and Elinor Lazarov (both graduated in 2008). Their formal supervisors were Prof. Itzhak Kelson and Prof. Yona Keisari.
 - As a postdoctoral fellow and later senior intern and staff scientist at WIS, I mentored the following students (with Prof. Amos Breskin as their supervisor):
 - Michael Pitt (M.Sc.), graduated in 2014
 - Eran Erdal (M.Sc.), graduated in 2016, now working on his Ph.D.
 - Artur Coimbra (Ph.D.), graduated in 2016
 - Itamar Israelashvili (Ph.D.), recently submitted his thesis
 - Yevgeniya Korotinsky – presently working on her M.Sc. with me at WIS (in this case the formal supervisors are Prof. Amos Breskin and Dr. Ran Budnik).

• **Awards**

- 1991 Dean's List, Hebrew University (physics)
- 2002 Excellence in Teaching Award, Tel Aviv University
- 2003 Excellence in Teaching Award, Tel Aviv University
- 2005 Judah Eisenberg Award for Academic Achievements, Tel Aviv University

• **Patents**

Method and Device for Radiotherapy, Kelson I, Arazi L, WO/2004/096293, filed 29/04/2004

• **Research Grants**

1. PI on ISF grant with Dr. Shikma Bressler. Grant number 1719/16: "Investigations of the Resistive-Plate WELL detector as a sampling element for (S)DHCAL and other applications" (2016-2020). USD85,000 per year, USD340,000 total
2. Weizmann Institute Staff Scientist Internal Grant Program (single PI): "Feasibility study of a positive-ion time projection chamber" (2016-2017). USD35,000 total