

Curriculum vitae

General Information

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 Israel

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Date of Birth: May 1st 1985

Country of Birth: Israel

Languages: Hebrew, English

Education

2011 – Present **Doctorate Candidate (Condensed Matter Physics)**
 Advisor: Prof. Eli Zeldov
Thesis title: “*Scanning SQUID On Tip microscopy of topological states of matter*”
 Weizmann Institute of Science

2009 – 2011 **MSc Physics,**
 Advisor: Prof. Eli Zeldov
Thesis title: “*Study of Vortex Dynamics in Type-II Superconductors by SOT microscopy*”
 Weizmann Institute of Science.

2006 – 2009 **BSc Physics and Chemistry (*magna cum laude*),**
 Hebrew University of Jerusalem.

Employment

2016 – present **Contributing writer**
 Davidson Institute's website: <http://davidson.weizmann.ac.il/>

2011 - 2012 **Visitors' guide**
 Clore Garden of Science, Weizmann Institute of Science

2008 – 2009 **Student Position, Hebrew University of Jerusalem**
 Advisor: Prof. Uri Banin
Research topic: “*Microscopy and Spectroscopy of fluorescent single nano particles*”

Peer reviewed Publications

1. [Visualization of superparamagnetic dynamics in magnetic topological insulators](#)
E. O. Lachman, A. F Young, A. Richardella, J. Cuppens, HR Naren, Y. Anahory, A. Y. Meltzer, A. Kandala, S. Kempinger, Y. Myasoedov, M. E. Huber, N. Samarth, E. Zeldov
Science Advances Volume: 1 Issue : 10 (2015) **e1500740**
 2. [Electrically Tunable Multiterminal SQUID-on-Tip](#)
Aviram Uri, Alexander Y. Meltzer, Yonathan Anahory, Lior Embon, **Ella O. Lachman**, Dorri Halbertal, Naren HR, Yuri Myasoedov, Martin E. Huber, Andrea F. Young, and Eli Zeldov
Nano Letters Article ASAP (2016) (online)
 3. [Scanning superconducting quantum interference device on a tip for magnetic imaging of nanoscale phenomena](#)
A. Finkler, D. Vasyukov, Y. Segev, L. Ne'eman, **E. O. Lachman**, M. L. Rappaport, Y. Myasoedov, E. Zeldov, and M. E. Huber
The Review of scientific instruments Volume: 83 Issue: 7 (2012) Pages : 073702
 4. [Nanoscale Near-Field Imaging of Excitons in Single Heterostructured Nanorods](#)
Eyal Yoskovitz , Gabi Menagen , Amit Sitt , **Ella Lachman** and Uri Banin
Nano Letters Volume: 10 Issue: 8 (2010) Pages: 3068-3072
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Oral Presentations

Invited talks:

Dec 2015 The Israel Physical Society Conference 2015, (BIU, Israel),
Visualization of superparamagnetic dynamics in magnetic topological insulators

Seminars:

Mar 23rd 2016 GLAM Special Seminar, (Stanford, USA),
SQUID-On-Tip microscopy of magnetically doped topological insulators

Contributed talks:

Mar 2016 American Physical Society March meeting (Baltimore, MA)
Visualization of superparamagnetic dynamics in magnetic topological insulators

Poster presentations:

- Sep 2013 European School On Nanosciences & Nanotechnologies 2013. (Grenoble, France)
Investigation of topological phases of matter using Scanning SQUID-On-Tip microscopy.
- Jul 2015 20th International Conference on Magnetism (Barcelona, Spain)
Superparamagnetism in Magnetic Topological Insulators revealed by Scanning SQUID-On-Tip microscopy.
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International schools

- Sep 2013 European School On Nanosciences & Nanotechnologies 2013. (Grenoble, France)
- Jul 2016 Boulder School for Condensed Matter and Materials Physics 2016 (Boulder CO, USA)
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Other Activities

- Photography
 - Group blog: ezlablog.tumblr.com ; <https://www.facebook.com/groups/ezlab/>
 - Fellow physicist at “Mada Gadol Baktana” group, which provide free, accessible, proof-checked knowledge to the public over the Facebook social platform. <https://www.facebook.com/MadaGB/>
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