

Ella Lachman

Experimental physicist (PhD) and a creative puzzle solver with enthusiasm for tinkering. Looking to make an impact by applying my passion for engineering in solving hard, exciting problems.

EDUCATION

Weizmann Institute of Science, Israel — *PhD*

February 2012 - expected graduation: May 2017

Advisor: Prof. Eli Zeldov

Thesis title: "Study of magnetically doped topological insulators using a scanning SQUID-On-Tip microscope"

Weizmann Institute of Science, Israel — *MSc*

September 2009 - January 2012

Advisor: Prof. Eli Zeldov

Thesis title: "Study of Vortex Dynamics in Type-II Superconductors by SOT microscopy"

Hebrew University of Jerusalem, Israel — *BSc*

September 2006 - August 2009

BSc Physics and Chemistry (magna cum laude).

EXPERIENCE

Hebrew University of Jerusalem, Israel — *student position*

September 2008 - August 2009

Advisor: Prof. Uri Banin

Research topic: "Microscopy and Spectroscopy of fluorescent single nano particles"

LittleBig Science, Israel — *Editor*

December 2016 - Present

Editing and commenting on team members' writing, suggesting writing topics and more. Writing posts of physics and physics-related subjects.

<https://www.facebook.com/MadaGB>

<https://lbscience.org/about/>

IDF, Israel — *Data analyst and software developer*

September 2003 - July 2006

Conducting research in the field of computer networks. Programing in C# and C++.

CONTACT INFORMATION

(+1) 510-993-5482

ellal@berkeley.edu

[ellachman.github.io](https://github.com/ellachman)

SKILLS

3D part design for machining
(Autodesk Inventor)

Design and automation of
experiments (LabView)

Data Analysis using MatLab, Python

Micropipette handling and
SQUID-On-Tip fabrication

Arduino programing and interfacing
with chip evaluation boards

NOTABLE PROJECTS

Scanning SQUID-On-TIP microscope

Design and assembly of a complete
cryogenic (^3He) scanning probe
microscope combined with transport
measurement setup.

SOT measurement box

Programming and assembling of a
customizable combined DAC and ADC
device.

LittleBig Science

Editor at the largest independent
science outreach group in Israel.

LANGUAGES

Hebrew (native)

English (fluent)