Amir Awawdi

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EDUCATION:

Graduate Master of science Degree- Tel Aviv University **Tel Aviv, Israel**

- Condensed Matter – Mesoscopic Physics 2016-2020

Thesis:

Investigating superconducting proximity effect between Indium Arsenide two-dimensional electron gas and discontinuous Indium grains by observing changes on characteristic quantum phenomena such as Shubnikov-de Haas oscillations, Weak localization, Zeeman splitting and quantum Hall effect.

Main Courses:

- Advanced electromagnetism
- Introduction to Nano-electromagnetism
- Mesoscopic physics and Nano-electronics
- Condensed matter theory
- Introduction to Soft matter

Undergraduate Bachelor Degree- Tel Aviv University

- Physics and Astronomy 2013-2016

Main Courses:

- Waves, Light and Optics
- Advanced Optics
- Quantum mechanics
- Introduction to condensed matter
- Advanced Condensed matter
- Advanced Physics Laboratory

Latin Patriarchate High School **Reine, Israel**

- High School Diploma – Physics and Chemistry 2006-2009

EXPERIENCES:

- **Research Student\Assistant – Quantum electron transport Laboratory** 2017-2019
  Nano-fabricating micro-structures in clean room using variety of laboratory techniques, such as, Photolithography, Chemical wet etching, Electron beam lithography and Ion beam sputtering (Metal films deposition). The investigated material has a heterostructure containing InAs/AlGaSb quantum well which was grown by molecular beam epitaxy (in collaboration with Weizmann institute of Science). We fabricated devices with Hall bar geometry in order to couple a 2 dimensional electron gas to a non-percolated layer of superconducting Indium grains through a 1 dimensional quantum wire. Experiments were held utilizing a ^{4}He cryogenic system and a Dilution (^{3}He /^{4}He) refrigerator. We cooled down samples to cryogenic temperatures (in the range 20 mK to 4.2 K) and measurements were held in the presence of a magnetic field up to 8 Tesla. The research was held under the supervision of Prof. Alexander Palevski at the Raymond ad Beverly Sackler faculty of exact sciences – school of physics and astronomy in Tel Aviv University.

- **Teaching Assistant – Tel Aviv University** 2016-2019
  Physics Laboratory – General and Semi-advanced levels
- **Office Assistant** – **Ministry of Education** **Ramat Gan, Israel**
  Scientific review - National authority for measurement and evaluation in education. 2015-2 months
- **Private Tutor – a private tutoring center** **Kafr Kanna, Israel**
  Physics and Mathematics – High school and college levels 2011-2015

Computer skills:

- competent with C, Matlab.
- competent with most Microsoft Office programs.
- OriginPro: program for interactive scientific graphing and data analysis.
- Raith150: electron beam writer with high resolution.

SOCIAL Skills:

- **"Sawa" Project – Initiative for Arab students - Tel Aviv University** 2014-2017
  Private Mentor – Helping Arab students adapt to the academic experience throughout their first academic year, assisting them to enhance their academic achievements, providing guidance to surpass the language and social obstacles and keeping an encouraging contact with them.

- **Dean of students tutoring program – Tel Aviv University** 2015-2016
  Private Tutor – In order to help students enhance their academic achievements taking in account the money burden, a special program was held in collaboration with the Dean of students office where students were asked to pay a symbolic amount of money in return of private tutoring sessions.

LANGUAGES:

- Arabic- Mother tongue.
- Hebrew- Advanced.
- English- Advanced.

Recommendations are available upon request.