

Oded Zilberberg

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Education

1997 Graduated my high school studies in the "Hebrew Gymnasium" in Jerusalem. I majored on Biology & Mathematics.
2004 Obtained a B.Sc. degree in Mathematics/Physics/Computer Science from the "Hebrew" university in Jerusalem.
2007 Obtained a M.Sc. degree in Physics from Basel university.
01.04.2008 Started a Ph.D. in the Weizmann Institute of science.

Languages

Hebrew Mother tongue.
English Mother tongue level.
German B2 level.

List of publications

1. Yaakov E. Kraus, Yoav Lahini, Zohar Ringel, Mor Verbin, and Oded Zilberberg, “**Topological States and Adiabatic Pumping in Quasicrystals**”, [arXiv:1109.5983](https://arxiv.org/abs/1109.5983) (2011).
2. Oded Zilberberg, Alessandro Romito, and Yuval Gefen, “**Charge sensing amplification via weak values measurement**”, *Phys. Rev. Lett.* **106**, 080405 (2011) [[arXiv:1009.4738](https://arxiv.org/abs/1009.4738)].
3. Oded Zilberberg, Bernd Braunecker, and Daniel Loss, “**CNOT for Multi-Particle Qubits and Topological Quantum Computation based on Parity Measurements**”, *Phys. Rev. A* **77**, 012327 (2008) [[arXiv:0708.1062v2](https://arxiv.org/abs/0708.1062v2)] .
4. Luigi Genovese, Alexey Neelov, Stefan Goedecker, Thierry Deutsch, Seyed Alireza Ghasemi, Alexander Willand, Damien Caliste, Oded Zilberberg, Mark Rayson, Anders Bergman, Reinhold Schneider, “**Daubechies wavelets as a basis set for density functional pseudopotential calculations**”, *J. Chem. Phys.* **129**, 014109 (2008) [[arXiv:0804.2583](https://arxiv.org/abs/0804.2583)].

Previous working experience

04/08 - now **Ph.D. student – In Weizmann Institute**
Work in the group of [theoretical condensed matter physics](#) with [Prof. Yuval Gefen](#). In my research I am interested in implementing the Weak Value measurement protocol in condensed matter setups. Additional related topics are 1D systems correlation effects, Transport in 1D systems out-of-equilibrium, and Weak measurements.

05/07 – 02/08 **Ph.D. student – In Basel University**
Work in the group of [theoretical condensed matter physics](#) with Prof. Daniel Loss. In my research I calculate transport between 1D fractional quantum Hall effect chiral edge states using a Master equation approach.

10/05 – 05/07 **Master student – In Basel University**
Work in different research groups ([Computational Physics](#), [Experimental Molecular Electronics](#)). I wrote my Master thesis in the group of [theoretical condensed matter physics](#). In my research I studied the many ways to encode a qubit using multiple elementary particles.

12/04 – 10/05 **Embedded Software Engineer – In TdSoft Ltd.**
Designing and implementing MIBs for SNMP control over embedded systems.
My job was to design a control link between users of a VoIP Media Gateway to the core of an embedded environment. This is done by an analysis of the user’s needs confronted by the requirements

of the underlying embedded system and protocols. The implementation was done in C and was responsible for legality checks of system's input as well.

2004 - 2008 Site construction - Freelancing contracts

Designed and programmed several internet sites.

I write the definition for the site together with the customer, designing the site both technically and graphically. I program it and offer upload and maintenance of the site. I include a CMS for the user that allows data update through an easy interface over a database.

9/95 – 9/97 Budo martial arts

I was a Ninjutsu Assistant instructor. I instructed groups of up to 50 students from basic level to black belts.

Army service

26/11/97 – 25/11/00 – 3 years service in the MLRS as a Sergeant of a mobile command center.
My service involved the instruction of technical courses.