Avinatan Hassidim

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EMPLOYMENT ⋄ **MIT**, Keck Research Fellow (2008 - present)

⋄ **Microsoft**, Consultant (2009 - present)

EDUCATION ⋄ **Hebrew University**, Jerusalem, Israel (2004 - 2008)
PhD Candidate at the School of Computer Science and Engineering.
Advisor: Prof. Michael Ben-Or. Done in parallel to army service.

⋄ **Hebrew University**, Jerusalem, Israel (2002)
MSc degree in Computer Science.
Advisor: Prof. Eliezer Lozinski (summa cum laude)

⋄ **Hebrew University**, Jerusalem, Israel (2000 - 2002)
BSc degree in Computer Science, Math and Physics (with honors).

MILITARY
SERVICE
⋄ **Talpiot** (1999 - 2002)
Cadet in a special military program, designed to train leading researchers.

⋄ **Algorithmic Research** (2002 - 2008)
Head of a research section. Ranked Captain.

HONORS ⋄ CTO and VP R&D of MeterLive, winner of the Telecom Track in MIT 100K competetion, 2008. Total prize money 22,000$.

⋄ Israel's Chief of Staff prize for excellent officer for the year 2006.

⋄ Hebrew university's rector's prize for academic year 2002.

⋄ Hebrew university's rector's prize for academic year 2001.

⋄ Faculty of sciences' dean's prize for academic year 2000.

RESEARCH
INTERESTS
Quantum Computation, Quantum Information Theory, Mechanism Design, Phylogenetic Reconstruction, Graph Theory.

PUBLICATI-
ONS
⋄ **Fast Quantum Byzantine Agreement**. Michael Ben-Or and Avinatan Hassidim. **STOC 2005**.

⋄ **Secure Multiparty Quantum Computation with (Only) a Strict Honest Majority**. Michael Ben-Or, Claude Crépeau, Daniel Gottesman, Avinatan Hassidim and Adam Smith. **QIP 2006** and **FOCS 2006**.

⋄ **No Nonlocal Box is Universal**. Frédéric Dupuis, Nicolas Gisin, Avinatan Hassidim, André Allan Méthot, Haran Pilpel. *Journal of Mathematical Physics 48, 082107. Invited to the Virtual Journal of Quantum Information September 2007. [quant-ph/0701142].*

⋄ **The Bayesian Learner is Optimal for Noisy Binary Search (and pretty good for quantum as well)**. Michael Ben-Or and Avinatan Hassidim. **QIP 2006** and **FOCS 2008** [quant-ph/0703231].

⋄ **Quantum Multiprover Interactive Proofs with Communicating Provers**. Michael Ben-Or, Avinatan Hassidim and Haran Pilpel. Invited to **QIP 2009** and **FOCS 2008**.

⋄ **Broadcasting with Side Information**. Noga Alon, Avinatan Hassidim, Eyal Lubetzky, Uri Stav and Amit Weinstein **FOCS 2008**.

⋄ **Sorting and Selection with Imprecise Comparisons**. Miklós Ajtai, Vitaly Feldman, Avinatan Hassidim and Jelani Nelson **ICALP 2009**

⋄ **Local Graph Partitions for Approximation and Testing**. Avinatan Hassidim, Jonathan Kelner, Huy N. Nguyen and Krzysztof Onak **FOCS 2009**

⋄ **Quantum Algorithm for Linear Systems of Equations**. Aram Harrow, Avinatan Hassidim, Seth Lloyd. Manuscript 2009 [arXiv:0811.3171]

⋄ **Quantum algorithms for testing properties of distributions**. Sergey Bravey, Aram Harrow, Avinatan Hassidim. Manuscript 2009

⋄ **Trace Reconstruction on a Tree**. Alexander Andoni, Constantinos Daskalakis, Avinatan Hassidim, Sebastien Roch. Manuscript 2009.

⋄ **Derandomizng Algorithms on Product Distributions**. Ariel Gabizon and Avinatan Hassidim Manuscript 2009.

WORKING PAPERS
⋄ **Quantum Computation Without Introducing Fresh Qubits**. Michael Ben-Or and Avinatan Hassidim. *2007.*

SERVICE
⋄ Reviewer for SCICOMP, FOCS, STOC, SODA, PODC, QIP, etc.

⋄ PC of RANDOM-09

INVITED TALKS
⋄ Noisy Binary Search - Perimeter Institue, January 2008

⋄ Noisy Binary Search - MIT, January 2008

⋄ Noisy Binary Search - IAS, January 2008

⋄ Noisy Binary Search - Microsoft SVC, January 2008

⋄ Derandomizing Algorithms on Product Disributions - IAS, December 2008

⋄ Derandomizing Algorithms on Product Disributions - Tel Aviv University, December 2008

⋄ Derandomizing Algorithms on Product Disributions - Bar Ilan University, December 2008

⋄ Derandomizing Algorithms on Product Disributions - Ben Gurion University, December 2008

⋄ Noisy Binary Search - Haifa University, December 2008

⋄ Derandomizing Algorithms on Product Disributions - Technion, December 2008

⋄ Quantum Algorithm for Linear Systems of Equations - Hebrew University, December 2008

⋄ Quantum Multi Prover Interactive Proofs with Communicating Provers - QIP, Santa Fe, January 2009

⋄ Broadcasting with Side Information - Hebrew University, April 2009

⋄ Quantum Multi Prover Interactive Proofs with Communicating Provers - Caltech, May 2009

⋄ Quantum Multi Prover Interactive Proofs with Communicating Provers - Berkeley, May 2009

⋄ Quantum Multi Prover Interactive Proofs with Communicating Provers - Toronto, May 2009

⋄ Quantum Multi Prover Interactive Proofs with Communicating Provers - CIFAR Meeting, May 2009