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RESEARCH INTERESTS     Quantum Computation, Mechanism Design, Phylogenetic Reconstruction.

EMPLOYMENT     ♦ MIT, Keck postdoctoral Fellow (2008 - present)  
                       ♦ **Microsoft Research**, 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 (summa cum laude).

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 competition, 2008. Total prize money 22,000\$.  
                       ♦ MIT Keck postdoctoral Fellowship 2008-2010.  
                       ♦ Israel's Chief of Staff prize for outstanding officer of 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.

PUBLICATIONS     ♦ **Caching for Multicore Machines.**  
                               Avinatan Hassidim.  
                               Innovations in Computer Science (**ICS**) 2010.  
                       ♦ **Trace Reconstruction on a Tree.**  
                               Alexander Andoni, Constantinos Daskalakis, Avinatan Hassidim, Sebastien Roch.  
                               **ICS** 2010.  
                       ♦ **Making and Breaking Quantum Money**  
                               Scott Aaronson, Eddie Farhi, David Gosset, Avinatan Hassidim, Jon Kelner Andy Lutomer-  
                               ski and Peter Shor.  
                               **ICS** 2010.

- ◇ **Derandomizing Algorithms on Product Distributions.**  
Ariel Gabizon and Avinatan Hassidim.  
**ICS 2010.**
- ◇ **Perfect Revenue From Perfectly Informed Players.**  
Jing Chen, Avinatan Hassidim and Silvio Micali.  
**ICS 2010.**
- ◇ **Quantum Algorithm for Linear Systems of Equations.**  
Aram Harrow, Avinatan Hassidim, Seth Lloyd.  
**Editor's suggestion** of Physical Review Letters (**PRL**), vol. 15, no. 103, pp. 150502.  
**Invited talk at QIP 2010**  
**Scientific American:** in preparation  
**Slashdot:** <http://science slashdot.org/article.pl?sid=08%2F12%2F05%2F1446205&from=rss>  
**Science News:** Quantum Solutions to Big Equations, November 2009 issue, see also [http://www.sciencenews.org/view/generic/id/48478/title/Quantum\\_computers\\_could\\_tackle\\_enormous\\_1](http://www.sciencenews.org/view/generic/id/48478/title/Quantum_computers_could_tackle_enormous_1)  
**MIT News:** <http://web.mit.edu/newsoffice/2009/quantum-algorithm.html>  
**PhysOrg:** <http://www.physorg.com/news174286879.html>  
**American Physical Society** <http://physics.aps.org/synopsis-for/10.1103/PhysRevLett.103.150502>  
Selected to the October 2009 issue of The Virtual Journal of Quantum Information. [arXiv:0811.3171]
- ◇ **Local Graph Partitions for Approximation and Testing.**  
Avinatan Hassidim, Jonathan Kelner, Huy N. Nguyen and Krzysztof Onak.  
**FOCS 2009.**
- ◇ **Sorting and Selection with Imprecise Comparisons.**  
Miklós Ajtai, Vitaly Feldman, Avinatan Hassidim and Jelani Nelson.  
**ICALP 2009.**
- ◇ **Quantum Multiprover Interactive Proofs with Communicating Provers.**  
Michael Ben-Or, Avinatan Hassidim and Haran Pilpel.  
**Invited talk at QIP 2009.**  
**FOCS 2008.**  
Full version submitted.
- ◇ **The Bayesian Learner is Optimal for Noisy Binary Search (and pretty good for quantum as well).**  
Michael Ben-Or and Avinatan Hassidim.  
**QIP 2006.**  
**FOCS 2008.**  
Full version submitted, [arxiv:0703.231].
- ◇ **Broadcasting with Side Information.**  
Noga Alon, Avinatan Hassidim, Eyal Lubetzky, Uri Stav and Amit Weinstein.  
**FOCS 2008.**
- ◇ **No Nonlocal Box is Universal.**  
Frédéric Dupuis, Nicolas Gisin, Avinatan Hassidim, André Allan Méthot, Haran Pilpel.  
Journal of Mathematical Physics **JMP** 48, 082107. [arxiv:0701.142].  
Selected to the September 2007 issue of the Virtual Journal of Quantum Information.
- ◇ **Secure Multiparty Quantum Computation with (Only) a Strict Honest Majority.**  
Michael Ben-Or, Claude Crépeau, Daniel Gottesman, Avinatan Hassidim and Adam Smith.  
**QIP 2006.**  
**FOCS 2006.**
- ◇ **Fast Quantum Byzantine Agreement.**  
Michael Ben-Or and Avinatan Hassidim.  
**STOC 2005.**
- ◇ **Phylogenetic Reconstruction with Insertions and Deletions.** Alex Andoni, Mark

Braverman and Avinatan Hassidim.  
Submitted 2009.

- ◇ **Position Auctions with Budgets: Existence and Uniqueness.**  
Itai Ashlagi, Mark Braverman, Avinatan Hassidim, Ron Lavi and Moshe Tennenholtz.  
Submitted, 2009.
- ◇ **Quantum algorithms for testing properties of distributions.**  
Sergey Bravey, Aram Harrow, Avinatan Hassidim.  
Submitted, 2009.
- ◇ **Unit Demand Auctions with Budget Constraints.**  
Itai Ashlagi, Mark Braverman and Avinatan Hassidim.  
Preprint, 2009.
- ◇ **Adaptive versus non-adaptive strategies for quantum channel discrimination**  
Aram W. Harrow, Avinatan Hassidim, Debbie W. Leung and John Watrous.  
Preprint 2009, [arXiv:0909.0256].
- ◇ **Monotonicity and Implementability.**  
Itai Ashlagi, Mark Braverman, Avinatan Hassidim and Dov Monderer.  
Under revision *Econometrica* 2009.

WORKING  
PAPERS

- ◇ **Phylogenetic Reconstruction via Local Clustering Algorithms** Avinatan Hassidim
- ◇ **Quantum state restoration, or how to perform quantum state tomography with a single copy of a state.**  
Eddie Farhi, David Gosset, Avinatan Hassidim, Andy Lutomerski Daniel Nagaj and Peter Shor.
- ◇ **Quantum Computation Without Introducing Fresh Qubits.**  
Michael Ben-Or and Avinatan Hassidim.
- ◇ **Non Mallable Extractors.**  
Avinatan Hassidim, Swastik Kopparty and Shubhangi Saraf.

PROFESSIONAL  
SERVICE

- ◇ PC of RANDOM-09.
- ◇ Reviewer for SICOMP, FOCS, ICS, STOC, SODA, PODC, QIP, RANDOM, ESA, QIC, SPAA.

PATENTS

- ◇ MeterStat - Obtaining statistics via radiation generated by personal devices, and analysis of this data.  
Provisional Patent, Property of Meterlive.

OTHER

- ◇ Experience with cellular networks.

QUALIFICA-  
TIONS

- ◇ C++, Python, Java.

REFERENCES

- ◇ Michael Ben-Or  
benor@cs.huji.ac.il  
Hebrew University, Israel.
- ◇ Piotr Indyk  
indyk@mit.edu  
Massachusetts Institute of Technology, USA.
- ◇ Seth Lloyd  
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Massachusetts Institute of Technology, USA.
- ◇ Silvio Micali  
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Massachusetts Institute of Technology, USA.

- ◇ Peter Shor  
shor@math.mit.edu  
Massachusetts Institute of Technology, USA.
- ◇ Umesh Vazirani  
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UC Berkeley, USA.

Additional references will be supplied upon request.