

# Arik Motskin

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Institute for Computational and  
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Stanford University

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## Education

**Stanford University** **Stanford, CA**  
**PhD Candidate, Computational and Mathematical Engineering** **9/2005-Present**  
Adviser: Leonidas Guibas  
GPA: 4.06.  
One of only 3 out of 18 students to pass PhD Qualifying Exams in 1<sup>st</sup> attempt, June 2006.  
Expected Graduation: 6/2010

**Stanford University** **Stanford, CA**  
**M.S., Computational and Mathematical Engineering** **4/2008**

**Harvard University** **Cambridge, MA**  
AB degree *cum laude* in Mathematics, Phi Beta Kappa. **9/2001-6/2005**  
Math GPA: 3.94. Overall GPA: 3.86.  
Honors Thesis: *Graph Planarity Algorithms*, advised by Leslie Valiant.  
John Harvard Scholar; Detur Prize, awarded to top 5% of Freshman Class.

## Research and Work Experience

**Stanford University** **Stanford, CA**  
**Research Assistant** **9/2005-Present**  
Distributed algorithms for communication, information delivery and desynchronization in sensor networks; game theoretic modeling of homeland security problems.

**Yahoo!, Inc.** **Santa Clara, CA**  
**Applied Research Intern** **6/2007-9/2007**  
Theoretical analysis and simulation of spend management system for budgeted advertisers in sponsored search. Collaborators: Ofer Mendelevitch, John Tomlin and Sathiya Keerthi Selvaraj.

**Yahoo!, Inc.** **Santa Clara, CA**  
**Applied Research Intern** **6/2006-9/2006**  
Quantifying irrationality in bidding behavior of budgeted advertisers in the sponsored search auction. Collaborators: Michael Schwarz and Ofer Mendelevitch.

**Citigroup - Fixed Income Quantitative Research** **New York, NY**  
**Quantitative Analyst, Commercial Mortgage Backed Securities** **6/2004-8/2004**  
Member of #1 ranked CMBS group on the street (Institutional Investor, 2004). Developed, programmed and back-tested statistical model to forecast commercial mortgage default rates; model is part of proprietary pricing tool as well as Citigroup's Yield Book package.

## Publications and Works in Progress

1. A. Motskin, T. Roughgarden, P. Skraba and L. Guibas. *Lightweight Coloring and Desynchronization for Networks*, Proceedings of the 28<sup>th</sup> International Conference on Computer Communications (INFOCOM), 2009.
2. H. Lee, H. Kwon, A. Motskin and L. Guibas. *Interference-Aware MAC Protocol for Wireless Networks by a Game-Theoretic Approach*, Proceedings of the 28<sup>th</sup> International Conference on Computer Communications (INFOCOM),, 2009.
3. L. M. Wein, Y. Liu and A. Motskin. *Analyzing the Homeland Security of the U.S.-Mexico Border*, Risk Analysis: An International Journal, May 2009.
4. L. Guibas, N. Milosavljevic and A. Motskin. *Connected Dominating Sets on Geometric Graphs with Mobile Nodes*. Submitted.
5. E. Arcaute and A. Motskin. *A First Result in Network Formation Games with Capacity Constraints*. Submitted.

## Interests and Activities

**Languages:** Fluent in French and Russian. Reading proficiency in Latin. Basic knowledge of Hebrew.

**Activities:** Ice-Hockey (on Stanford University team 2005-2007), Jazz saxophone, Photography.