Alexander Stotland, Ph.D

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Education	Ph.D. in Physics, Ben-Gurion University, Israel, 2005 - 2010
	M.Sc. in Physics, Ben-Gurion University, Israel, 2003 - 2006
	B.Sc. in Physics and Computer Science, Tel Aviv University, Israel, 1999 - 2002

Relevant Experience

The Sami Shamoon College of Engineering July 2011 - present
Lecturer in Physics 15 hr/wk

University of California, San Diego June 2010 - May 2011
Postdoctoral Researcher full time
- Theoretical research in the field of memory elements (memory resistors, capacitors and inductors), analyzing the effects of noise on these devices
- Numerical solution of stochastic differential equations using Python / Matlab
- Theoretical study of superconductivity in nano-scale devices

Ben-Gurion University, Beer-Sheva, Israel October 2005 - May 2010
Research Assistant and Postdoctoral Researcher full time
- Theoretical study of quantum response of weakly chaotic driven systems (like the heating rate of cold atoms in vibrating traps)
- Methods: Monte-Carlo simulations, Random Matrix Theory, Linear Algebra, numerical solution of differential equations, and various techniques of condensed matter physics

Ben-Gurion University, Beer-Sheva, Israel October 2005 - March 2010
Teaching Assistant 20 hr/wk
- Teaching Assistant for courses in electromagnetic theory, waves, modern physics, mathematical physics and solid state physics
- Interaction with students from a variety of academic backgrounds
- Built an online database of physics exercises for the use of other teaching assistants and students

Israel Defense Forces (military service) July 2002 - July 2005
Head of a Statistical Analysis Group full time
- Processed large datasets, extensive use of SPSS software

Israeli NASA node, Tel Aviv University, Israel June 2001 - August 2002
Programmer 10 - 15 hr/wk
- Programming in C and Perl in UNIX environment

Publications

A. Stotland, M. Di Ventra, *Stochastic memory: memory enhancement due to noise*, arXiv:1104.4485 (2011)

A. Stotland, L.M. Pecora and D. Cohen, *"Weak Quantum Chaos" and its resistor network modeling*, Phys. Rev. E 83, 066216 (2011)

A. Stotland, L.M. Pecora and D. Cohen, *Quantum response of weakly chaotic systems*, Europhysics Letters 92, 20009 (2010)

A. Stotland, T. Kottos and D. Cohen, *Random-matrix modeling of semi-linear response, the generalized variable range hopping picture, and the conductance of mesoscopic rings*, Phys. Rev. B 81, 115464 (2010)

A. Stotland, D. Cohen and N. Davidson, *Semilinear response for the heating rate of cold atoms in vibrating traps*, Europhysics Letters 86, 10004 (2009)

A. Stotland, R. Budoyo, T. Peer, T. Kottos and D. Cohen, *The mesoscopic conductance of disordered rings, its random matrix theory, and the generalized variable range hopping picture*, J. Phys. A 41, 262001 (2008) (Fast Track Communication), **selected for Editor's Choice Fast Track Communication paper**

A. Stotland and D. Cohen, *Diffractive energy spreading and its semiclassical limit*, J. Phys. A 39, 10703 (2006)

A. Stotland, A.A. Pomeransky, E. Bachmat, D. Cohen, *The information entropy of quantum mechanical states*, Europhysics Letters 67, 700 (2004)

Talks and Conferences	During the last 6 years I gave 10 talks / seminars on the topics of my research and participated in about 15 workshops / conferences / summer schools.
Academic Honors	Participation in the 58th Meeting of Nobel Laureates in Lindau dedicated to physics, Germany, 2008
	Won full funding (including travel) for 3 international summer schools / conferences
Computer Skills	Numerical simulations (using Matlab, Maple, Mathematica, Python). In particular, creating and implementing algorithms for quantum chaos studies and numerical solutions of stochastic differential equations.
	Programming languages: C, Perl, Python, Visual Basic
	Knowledge of Windows and Linux, Linux administration (including small clusters)
Personal Details	Date of Birth: February 27, 1981
	Languages: English (fluent), Hebrew (fluent), Russian (fluent)
References	Available upon request