

Marcin Kotowski

Personal Data

Date of Birth 18 December 1987
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Scientific Interests

quantum information theory, quantum computation
probability and geometric group theory

Research Experience

- Mar-Apr 2011 **(arranged) Institut de Ciències Fotòniques (ICFO), Barcelona**, *research fellowship*, invited by prof. Maciej Lewenstein.
- Jun-Aug 2010 **Weizmann Institute of Science, Rehovot**, *research fellowship*, supervised by prof. Vered Rom-Kedar.
worked on numerical and analytical properties of Fermi acceleration in 3-dimensional chaotic billiards using tools from dynamical systems theory
- Jul-Aug 2009 **Center for Theoretical Physics of the Polish Academy of Sciences, Warsaw**, *research fellowship*, supervised by prof. Marek Kuś.
worked on characterizing nonclassical correlations in multiparticle systems using methods of Lie-group representation theory and generalized coherent states

Publications

M.Kotowski, M.Kotowski, M.Kuś „*Universal nonlinear entanglement witnesses*”, Phys. Rev. A 81, 062318, <http://arxiv.org/abs/1003.0210>

Education

- 2006–present **College Of Inter-Faculty Individual Studies In Mathematics and Natural Sciences, University of Warsaw, Warsaw, Poland**, 4th year in progress.
- mathematics (towards Master's in 2011)
- theoretical physics
- computer science
- 2003–2006 **1st Secondary School in Łomża**, *mathematics, physics and computer science profile*.

Activities

- 2010 coordinating and lecturing at student seminar in analysis, geometry and probability
topics covered: convex geometry, probability on groups, spectral graph theory
- 2009-2010 volunteering for the Polish Children's Fund as a tutor at scientific workshops for gifted high school students (tutoring in theoretical computer science)
courses taught: „Automata theory”, „Quantum algorithms”

- 2006-2010 coorganizing and tutoring at annual Scientific Summer Workshops for gifted high school students
courses taught: „Game theory”, „Electrodynamics”, „Lambda calculus”, „Automata theory”, „Probabilistic method”, „Logic and complexity”, „Introduction to quantum mechanics”, „Information theory”
- 2006– member of the Physics’ Students Association of the Univeristy of Warsaw (SKFiz UW)
- 2006– member of the Mathematics’ Students Association of the Univeristy of Warsaw (KPM UW), president since 2009

Conferences and Events

- Oct 2010 International Conference in Quantum Information and Quantum Computation, Stockholm
- May 2010 Spring School in Dynamical Systems 2010, Będlewo
- Apr 2010 9th Student Physics Conference, Brenna
talk given: „Quantum random walks”
- Sep 2009 summer scientific school of Mathematics’ Students Association of the Univeristy of Warsaw, Małe Ciche k. Zakopanego
talk given: „Hyperbolic and virtually free groups”
- Jul 2009 Geometric Group Theory, Będlewo
- Sep 2008 summer school „Physics and Tetry” in mathematical physics, Małe Ciche k. Zakopanego
- Sep 2007 10th International Workshops for Young Mathematicians - Combinatorics, Kraków

Awards and Achievements

- 2009 Scholarship of the Minister of Science and Higher Education for exceptional achievements in science
- 2007-2008 university scholarship for achievements in science
- 2006 Scholarship of the Minister of Education
- 2006 finalist of the 57th Polish Mathematical Olympiad
- 2005 honorable mention at the 13th International Philosophy Olympiad
- 2005 3rd place at the 17th Polish Philosophy Olympiad
- 2005 finalist of the 29th English Language Olympiad

Skills

- languages Polish (native), English (fluent)
- science related \LaTeX , Mathematica, Matlab/Octave
- software
- programming C/C++, Java, Python, Bash, Pascal, Smalltalk, x86 assembler, PHP, PL/SQL

Other interests

literature, philosophy, music, mountain hiking