Curriculum Vitae

Alessandro Cosentino

2014-11-14

Education

Ph.D. in Computer Science

University of Waterloo — January '10 – present

Expected graduation date: April '15

Fellow of the **Institute for Quantum Computing**

Recipient of a **David R. Cheriton Graduate Scholarship**,
awarded annually to forty to seventy-five full-time University of Waterloo Computer Science graduate students
on the basis of scholastic excellence and evidence of research potential.

M.Math in Computer Science

University of Pisa — February '09

Final score: 110/110 *cum laude*

B.Math in Computer Science

University of Pisa — July '06

Final score: 110/110 *cum laude*

Research Interests

Used *convex programming* to answer several fundamental open questions in *quantum information theory*.

Publications

- Alessandro Cosentino, Robin Kothari, and John Watrous. Query-witness tradeoffs in quantum computation. manuscript, November 2014

- Somshubhro Bandyopadhyay, Alessandro Cosentino, Nathaniel Johnston, Vincent Russo, John Watrous, and Nengkun Yu. Limitations on separable measurements by convex optimization. preprint, arXiv:1408.6981v1 [quant-ph], August 2014

- Alessandro Cosentino and Vincent Russo. Small sets of locally indistinguishable orthogonal maximally entangled states. *Quantum Information & Computation*, 14(13&14):1098–1106, 2014

- Alessandro Cosentino, Robin Kothari, and Adam Paetznick. Dequantizing Read-once Quantum Formulas. In Simone Severini and Fernando Brandao, editors, *8th Conference on the Theory of Quantum Computation, Communication and Cryptography (TQC 2013)*, volume 22 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 80–92, Dagstuhl, Germany, 2013. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik

- Alessandro Cosentino. Positive-partial-transpose-indistinguishable states via semidefinite programming. *Phys. Rev. A*, 87:012321, Jan 2013

- Alessandro Cosentino and Simone Severini. Weight of quadratic forms and graph states. *Phys. Rev. A*, 80:052309, Nov 2009

Exchange programs

Research intern

LIAFA, Université Paris Diderot — February '13 – April '13

Erasmus scholar

Aarhus University — September '07 – March '08

Teaching Experience

Teaching assistant

University of Waterloo — 2010 – 2013

- Theory of Quantum Information (graduate course)
- Data Structures and Data Management
- Algorithms
- Introduction to Computer Science

UNIX Consultant

Math Faculty Computing Facility, University of Waterloo — Winter '12 and *Fall '12*

Other Experience

Outreach Program for Women org coordinator and mentor *– Summer '14*

Google Code-in org administrator *– Winter '12*

Google Summer of Code student developer *– Summer '12*

Season of KDE student developer *– Summer '11*

Professional Service

Technical Reviewer

- *APS Physical Review A*

- *IEEE Transactions on Information Theory*

- *XVII Conference on Quantum Information Processing (2014).*

Technical Skills

- Research tools: LaTeX, MATLAB/Octave and framework CVX for convex programming;
- Web programming Languages: PHP, HTML5, Javascript, CSS;
- Other technologies: RSS and Atom standards, Git.