Andrea Rocchetto

Contact Information

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Nationality: British, Italian
DOB: 15/07/1991

Education

University of Oxford — Oct. '15 – Present
Ph.D. Candidate, Computer Science (expected June '19)
Advisors: S. Severini, V. Kanade, S. Benjamin

Imperial College London — Oct. '14 – Sept. '15
M.Sc. in Physics with Distinction

Sapienza Università di Roma — Sept. '10 – Nov. '13
B.Sc. in Physics cum Laude

Visiting Positions

2019	Visiting scholar, Berkeley Center for Quantum Information and Computation, University of California, Berkeley
2019	Semester as a Graduate Fellow at the Kavli Institute for Theoretical Physics, University of California, Santa Barbara
2018	Trimester on "Measurement and control of quantum systems: theory and experiments", Institut Henri Poincaré
2016 – 2019	Research Assistant, Quantum Group, Department of Computer Science, University College London

Publications and Preprints

Stabiliser states are efficiently PAC learnable, Quantum Information and Computation, Vol. 18, No. 7&8 (2018)

Learning DNFs under product distributions via μ-biased quantum Fourier sampling, arXiv preprint arXiv:1802.05690 (2018). With V. Kanade and S. Severini

Quantum machine learning: a classical perspective, Proceedings of the Royal Society A 474, No. 2209 (2018). With C. Ciliberto, M. Herbster, A. D. Ialongo, M. Pontil, S. Severini, and L. Wossnig

Learning hard quantum distributions with variational autoencoders, npj Quantum Information, 4 (2018). With G. Carleo, E. Grant, S. Severini, and S. Strelchuk

Modelling non-Markovian quantum processes with recurrent neural networks, New Journal of Physics, Vol. 20, No. 12 (2018). With L. Banchi, E. Grant, and S. Severini

Approximating Hamiltonian dynamics with the Nyström method, arXiv preprint arXiv: 1804.02484 (2018). With C. Ciliberto, M. Pontil, A. Rudi, S. Severini, and L. Wossnig

Experimental learning of quantum states, Science Advances 5, No. 3, eaau1946 (2019). With S. Aaronson, I. Agresti, M. Bentivegna, G. Carvacho, D. Poderini, and S. Severini

Stabilizers as a design tool for new forms of the Lechner-Hauke-Zoller annealer, Science Advances 2, No. 10, e1601246 (2016). With S. Benjamin and Y. Li

Honors and Awards	2019	Kavli Institute for Theoretical Physics Graduate Fellowship
	2018 – 2022	Aspen Institute Italia Junior Fellow
	2016 – 2019	Qinetiq Studentship
	2015 – 2019	EPSRC DTP Scolarship
Refereeing	Journals:	Nature, npj Quantum Information, Physical Review A, Science Advances
	Conferences:	ITCS
Invited Talks	2019	Program "Machine Learning For Quantum Many-Body Physics", Kavli Institute for Theoretical Physics, Santa Barbara, US
	2018	Workshop "Algebraic Graph Theory and Complex Networks", University of Naples "Federico II", Naples, Italy
	2018	Workshop "Observability and Estimation", Institut Henri Poincaré, Paris, France
	2018	Workshop "Machine learning in physics", Flatiron Institute, New York, US
Invited Seminars	2019	Berkeley Center for Quantum Information and Computation, Berkeley, California, US
	2018	Perimeter Institute for Theoretical Physics, Waterloo, Canada
	2018	CSML, Istituto Italiano di Tecnologia, Genoa, Italy
	2017, 2018	DAMTP, University of Cambridge, Cambridge, UK
	2018	IRIF, Université Paris-Diderot, Paris, France
	2018	IQIM, Caltech, Los Angeles, US
	2017	Department of Physics, University of Oxford, Oxford, UK
	2016, 2017	Department of Computer Science, UCL, London, UK
Contributed Talks and Posters	2019	Quantum Information Processing (QIP) Conference, Boulder (CO), US (poster)
	2018	Neural Information Processing Systems (NIPS) Conference, Montreal, Canada (poster at the "Machine Learning and Molecules" workshop)
	2018	Quantum Information Processing (QIP) Conference, Delft, The Netherlands (poster)
	2017	Neural Information Processing Systems (NIPS) Conference, Long Beach (CA), US (poster at the "Machine Learning and Molecules" workshop)
	2017	Adiabatic Quantum Computing (AQC) Conference, Tokyo, Japan (contributed talk)
Relevant Skills	Languages:	English, Italian
	Programming:	C, Mathematica, Matlab, Python