Andrea Rocchetto

Contact Information	Department of Computer Science University of Texas at Austin 2317 Speedway Austin (TX), 78712 US	+1 (805) 280-8442 andrea@cs.utexas.edu Nationality: British, Italian DOB: 15/07/1991

Employment

UNIVERSITY OF TEXAS AT AUSTIN   Sep. '19 – Present
It from Qubit Simons Collaboration Postdoctoral Fellow
Advisor: S. Aaronson

Education

UNIVERSITY OF OXFORD   Oct. '15 – Aug. 19
Doctor of Philosophy (DPhil)
Advisors: S. Severini, V. Kanade, S. Benjamin

KAVLI INSTITUTE FOR THEORETICAL PHYSICS   Jan. '19 – June '19
Graduate Fellow

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

Honors and Awards

2019	Kavli Institute for Theoretical Physics Graduate Fellowship
2018 – 2022	Aspen Institute Italia Junior Fellow
2016 – 2019	Qinetiq Studentship
2016	Nature Innovation Forum on Quantum Technologies
2015 – 2019	EPSRC DTP Scolarship

Refereeing and Service

PC Member:	Quantum Computing Theory in Practice (QCTIP) 2020
Publishers:	Oxford University Press
Journals:	Nature, Nature Communications, npj Quantum Information, Philosophical Transactions of the Royal Society A, Physical Review A, Physical Review Letters, Quantum, Science Advances
Conferences:	Artificial Intelligence and Statistics (AISTATS), Algorithmic Learning Theory (ALT), Innovations in Theoretical Computer Science (ITCS), Quantum Computing Theory in Practice (QCTIP), Quantum Information Processing (QIP), ACM Symposium on Theory of Computing (STOC)

Invited Talks	2020	Quantum and Physics Based Machine Learning ELLIS meeting, virtual due to COVID-19
	2019	DALI/ELLIS meeting, San Sebástian, Spain
	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	QuICS, University of Maryland, College Park (MD), US
	2019	Lawrence Livermore National Laboratory, Livermore (CA), US
	2019	Berkeley Center for Quantum Information and Computation, Berkeley (CA), 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 (CA), 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)

Publications and Preprints

Approximating Hamiltonian dynamics with the Nyström method, Quantum 4, 234 (2020). With C. Ciliberto, M. Pontil, A. Rudi, S. Severini, and L. Wossnig

Statistical limits of supervised quantum learning, Physical Review A 102, 042414 (2020). With C. Ciliberto, A. Rudi, L. Wossnig

Learning DNFs under product distributions via μ-biased quantum Fourier sampling, Quantum Information and Computation, Vol. 19, No. 15&16 (2019). With V. Kanade and S. Severini

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

Decomposition of Pauli groups via weak central products, arXiv preprint arXiv:1911.10158 (2019). With Francesco G. Russo

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

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

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