

CONFERENCES

Organisation

Local organizer

- 2018, 19-23 February: workshop on quantum correlations, CQT, Singapore
- 2016, 4-8 July: The 13th conference on Quantum Computation, Measurement and Computing (QCMC), Singapore.
- 2009, 30 November – 4 December: workshop on nonlocality, CQT, Singapore
- 2008, 4-6 December: workshop “Quantum cryptography with finite resources”, CQT, Singapore.

Committees

- Program committee co-chair for AQIS 2017, Singapore.
- Program committee member, TQC 2017, Paris
- Member of the steering committee of QCMC for the term 2016-2022. Vice-chair in 2018. Chair in 2020 [postponed to 2021].

Participation

YEAR	TYPE	PLACE & DATE	TITLE OF TALK
2020	Colloquium Talk	[Zoom] KIAS, Seoul, 3 December	Certifying and using quantum uncertainty
2020	Invited talk	[Zoom] The 11 th Dynamics Days Asia-Pacific (DDAP11), Singapore, 16-20 November	Fluctuation theorems from Bayesian retrodiction.
2020	Seminar talk	[Zoom] University of British Columbia, Vancouver (R. Raussendorf), 14 October	Tree size complexity of states and the power of quantum computation
2020	Invited talk	[Zoom] Workshop on Quantum Information, Computation and Foundation, Kyoto, 14-18 September	Absolutely entangled sets
2019	Invited talk	Quantum Computing Workshop, United Arab Emirates University, 14-15 October	Amazing qubits and where to find them
2019	Invited talk	Workshop Causality in the Quantum World, Anacapri, 17-20 September	Devices in superposition
2019	Invited talk	Quantum Limits of Knowledge, Copenhagen, 19-21 June	Device-independent snapshots
2019	Invited talk	Solstice of Foundations school, ETH Zurich, 17-21 June	Bell nonlocality: a primer
2019	Poster	NISQ workshop, University of Maryland, 6-7 June	Tree-size complexity of states and intermediate size quantum computers
2019	Posters	TQC, University of Maryland, 3-5 June	Device-independent tools can be advantageous even when the experiment is not device-independent Almost thermal operations: inhomogeneous reservoirs
2019	Invited talk	idQuantique Winter School, Les Diablerets, 19-25 January	Randomness in quantum phenomena
2018	Invited talk	2 nd Hong Kong – Shenzhen quantum information workshop, Shenzhen (China), 26-29 November	Randomness extraction from Bell violation with continuous parametric down-conversion
2018	Seminar talk	ICFO Barcelona (A. Acin), 20 September	Stories about the second law(s) of thermodynamics
2018	Invited talk	4 th Seefeld workshop in quantum information, Seefeld, 1-6 July	Stories about the second law(s) of thermodynamics
2018	Invited talk	Conference of the Society of Catholic Scientists, Washington, 8-10 June	Randomness in quantum phenomena
2018	Seminar talk	QuICS, University of Maryland (Charles Clark), 6 June	Self-testing: an overview
2018	Invited talk	India-Singapore Joint Symposium, NTU, Singapore	Self-testing
2017	Invited talk	QCRYPT, Cambridge, 18-22 September	Self-testing: an overview
2017	Invited talk	ICSSUR, Jeju Island (Korea), 28 August – 1 September	Quantum from device-independent principles: keep trying
2017	Seminar talk	KIAS Seoul (Jaewan Kim), 25 August	Quantum from device-independent principles: keep trying
2017	Invited talk	SANDU Fest, Crisan (Romania), 22-26 May	Device-independent Self-testing
2017	Colloquium Talk	Physics Colloquium, Oxford, 17 February	The applied side of Bell inequalities
2016	Invited talk	12 th China-Singapore Joint Symposium, 22-24 September	Theoretical studies on quantum mirrors
2016	Seminar talk	CSRC Beijing (J.Q. You), 20 September	Theoretical studies on quantum mirrors
2016	Invited talk	AQIS16, Taipei, 28 August -2 September	The device-independent outlook on quantum physics

Valerio Scarani Updated November 2020

2016	Invited talk	Quantum Information and Foundation Workshop, Hong Kong, 4-7 May	Device-independent self-testing
2015	Invited talk	Asia-Pacific Conference in Quantum Information Science, Auckland, 30 November – 4 December	Device-independent self-testing
2015	Invited talk	Workshop “The nature of randomness...”, STIAS, Stellenbosch (South Africa), 26-28 October	Quantum randomness and the device-independent claim
2015	Invited talk	Workshop Trustworthy Quantum Information, Ann Arbor, 28 June – 2 July	Device-independent self-testing: a primer
2015	Invited talk	Qrandom conference, Barcelona, 4-8 May	El azar cuántico [Wide-audience talk in the context of the conference, in Spanish]
2014	Invited talk	EQus workshop, Sydney, 4-5 December	Atoms in 1D waveguides as quantum devices
2014	Seminar talk	ANU Canberra (P.K. Lam), 2 December	Randomness from quantum systems – a guided tour
2014	Contributed talk	QCMC14, Hefei (China), 2-6 November	Robust and versatile black-box certification of quantum devices
2014	Seminar talk	ICFO Barcelona (A. Acín), 29 September	A whole state in a single number
2014	Seminar talk	EPFL, 19 September	Device-independent certification of quantum devices
2014	Seminar talk	ETHZ (R. Renner), 18 September	A whole state in a single number
2014	Invited talk	GISIN'14, Riederalp (Switzerland), 8-12 September	Tree size complexity of quantum states
2014	Invited talk	AQIS14, Kyoto, 20-24 August	Device-independent certification of quantum devices
2014	Invited talk	Quantum [Un]Speakables II: 50 Years of Bell's Theorem, Vienna, 19-22 June	A whole state in a single number
2014	Invited talk	Quantum Theory: from Problems to Advances (QTPA), Vaxjo (Sweden), 9-12 June	Randomness from quantum systems – a guided tour
2014	Invited talk	Central European Quantum Information Processing (CEQIP) 2014, Znojmo (Czech Republic), 5-8 June	Randomness from quantum systems – a guided tour
2014	Seminar talk	USTC Shanghai (Zhang Qiang), 24 April	A whole state in a single number
2014	Invited talk	Workshop The Future of Optical Network and Optical Communication, U-Park, Nanjing (China), 22 April	Introduction to quantum information: state and prospects
2014	Posters	QIP Barcelona, 3-7 February	SWAP: self-testing made robust and versatile Computing and witnessing the complexity of quantum states
2013	Invited talk	Conference in honour of the 90th Birthday of Freeman Dyson, NTU, Singapore	Device-independent certification of quantumness
2013	Invited talk	Symposium Quantum Theory: Advances and Problems, Vaxjo (Sweden), 10-13 June	Bell-based randomness generation
2013	Contributed talk	Central European Quantum Information Processing (CEQIP) 2013, Valtice (Czech Republic), 5-9 June	Complex quantum states
2013	Invited talk	Asia-Pacific Workshop in Quantum Information Science, NII Tokyo, 21-23 May	Complex quantum states
2013	Seminar talk	Caltech, Pasadena (J. Preskill), 5 February	Device-independent games: randomness good, communication bad
2013	Seminar talk	University of California Berkeley (U. Vazirani), 28 January	Device-independent games: randomness good, communication bad
2012	Colloquium Talk	COQUS, University of Vienna (Austria), 17 December	Device-independent games: randomness good, communication bad
2012	Invited talk	International workshop Horizons of Quantum Physics, Taipei (Taiwan), 14-18 October	The twin of Bell's theorem
2012	Seminar talk	USTC Hefei (S. Wu), 28 September	Device-independent quantum information
2012	Seminar talk	USTC Hefei (S. Wu), 26 September	Information causality as a physical principle
2012	Invited talk	8 th China-Singapore Workshop on Research Frontiers in Physics, Guangzhou (China), 24-25 September	Coupling a single atom with propagating light
2012	Invited talk	Japan-Singapore Workshop on multi-user quantum information, Singapore, 17-20 September	Few-partite nonlocality
2012	Invited talk	Gisin 60 workshop, Val d'Illiez (Switzerland), 29 May – 2 June	QKD for fun
2012	Invited talk	APS March Meeting, Boston, 28 February – 3 March	Information causality as a physical principle
2012	Seminar talk	Harvard University (A. Aspuru-Guzik), 23 February	Device-independent quantum information
2012	Invited talk	PQE 2012, Snowbird (Utah), 2-6 January	Coupling a single atom with propagating light
2011	Invited talk	First GDR-IQFA workshop, Paris, 23-25 November	Device-independent quantum information
2011	Invited talks	Pedagogical workshop: Cours WZB CPS “Physique quantique”, Champéry, 21-23 September	(A lecture on non-locality and a panel discussion on teaching quantum physics in secondary schools)
2011	Invited talk	Workshop Conceptual Foundations and Foils for Quantum Information Processing, Perimeter Institute, Waterloo, 9-13 May	3>>2
2011	Contributed talk	APS March Meeting, Dallas, 21-25 March	Large violation of Bell's inequalities using both counting and

Valerio Scarani Updated November 2020

			homodyne measurements
2011	Invited talk	IPS meeting, Singapore, 25-26 February	Information causality as a new physical principle
2011	Invited talk	CQC2T kick-off meeting, Sydney, 19-21 January	The practical side of Bell's inequalities
2011	Invited talk	Conference 75 years of Quantum Entanglement, Kolkata, 6-10 January	Information causality as a new physical principle
2010	Invited talk	Meeting Perspectives in physics, Chongqing, 18-23 October	Theory for practical quantum cryptography
2010	Invited talk	Conference Quantum physics and the nature of reality (80 th birthday of John Polkinghorne), Oxford, 26-29 September	Signaling and no-signaling: not easy to go beyond quantum physics
2010	Seminar talk	ETH Zurich (R. Renner), 21 September	Practical QKD: recent advances
2010	Seminar talk	Computer Science Colloquium, ETH Zurich, 20 September	Information causality as a new physical principle
2010	Seminar talk	University of Geneva (N. Gisin), 16 September	Information causality as a new physical principle
2010	Invited talk	Conference New directions in the Foundation of Physics, Washington, 30 April – 2 May	Information causality as a new physical principle
2010	Seminar talk	MIT, Boston, 27 April	Information causality
2010	Seminar talk	Informal seminar in: Workshop on Complex Quantum Systems, National University of Singapore, 16 March	Overview of practical QKD
2010	Invited talk	Nagoya Winter Workshop 2010 on Quantum Information, Measurement and Foundations, Nagoya, 18-24 February	Three topics in non-locality [information causality, non-additivity, device-independent state estimation]
2010	Seminar talk	Lunchtime seminar, National University of Singapore, 11 February	Quantum information in a black-box
2010	Seminar talk	Physics Colloquium, Oxford University, 29 January	Quantum information in a black-box
2010	Seminar talk	Scuola Normale Superiore di Pisa (R. Fazio), 19 January	Quantum information in a black-box
2009	Invited talk	NATO ARW, Quantum cryptography and computing: theory and implementation, Gdansk, 9-12 September	Black-box quantum information
2009	Invited lectures	Les Houches Summer school "Ultracold gases and quantum information", Singapore, 29 June – 24 July	Quantum information (10 hours of tutorial lectures)
2009	Seminar Talk	University of Vienna (A. Zeilinger, C. Brukner), 26 June	A new physical principle: information causality
2009	Invited talk	Feynman Festival '09, Olomouc, 22-26 June	Black-box tomography
2009	Seminar talk	University of Bristol (S. Popescu), 6 May	QKD: a million signal task
2009	Seminar talk	CQT Research Seminar, Singapore, 7 April	QKD: a million signal task
2009	Invited talk	Inaugural IPS March Meeting, Singapore, 6-7 March	Quanta in a black-box
2009	Invited talk	First workshop on quantum technologies in biological systems, Singapore, 11-17 January	Quanta in a black-box
2008	Keynote talk	18 th National AIP Congress, Adelaide, 30 November - 5 December	Black-box quantum information
2008	Seminar talk	Brisbane, Griffith University (H. Wiseman, G.Pryde), 26 November	Quantum cryptography
2008	Invited lectures	Summer school "Information security in a quantum world", Waterloo (Canada), 7 – 11 August	Quantum cryptography (5 hours of tutorial lecture)
2008	Invited talk	International workshop on the mathematical foundations of quantum control and quantum information theory, Madrid, 26 – 30 May	Cryptography and non-locality
2008	Invited talk	Workshop "Information primitives and laws of nature", ETH Zurich, 13 – 17 May	Cryptography and non-locality
2008	Seminar talk	Durban, University of Kwazulu-Natal (F. Petruccione), 24 April	Quantum cryptography and non-locality
2008	Seminar talk	Durban, University of Kwazulu-Natal (F. Petruccione), 22 April	Quantum cryptography: an overview
2008	Seminar talk	Mumbai, Tata Institute for Fundamental Research (J. Ravishankran, P. Sen), 26 February	Quantum cryptography and non-locality
2008	Contributed talk	TQC2008, Tokyo (Japan), 30 January – 1 February	Security of quantum cryptography with finite resources
2007	Seminar talk	Beijing, Peking University (Y. Li), 19 December	Quantum cryptography and non-locality
2007	Seminar talk	Beijing, Tsinghua University (X.B. Wang), 18 December	Quantum cryptography and non-locality
2007	Seminar talk	ETH Zurich (S. Wolf)	The Leggett model and its falsification
2007	Seminar talk	ETH Zurich (A. Imamoglu, A. Walraff), 28 September	Quantum cryptography (tutorial)
2007	Seminar talk	Uni Fribourg (D. Baeriswyl), 26 September	"Reasonable" models and quantum correlations
2007	Seminar talk	EPF Lausanne (M.A. Dupertuis, D. Ivanov), 19 September	"Reasonable" models and quantum correlations
2007	Contributed talk	AQIS 2007, Kyoto (Japan), 2-6 September	Security of quantum cryptography based on non-locality
2007	Invited talks	Asia Pacific Workshop in Quantum Information Science,	Quantum cryptography I & II (tutorials)

Valerio Scarani Updated November 2020

		Singapore, 30 July – 2 August	
2007	Contributed talk	Workshop “Theory and Realization of Practical QKD”, Waterloo (Canada), 11-14 June	Security bounds for keys of finite length
2007	Seminar talk	University of Geneva (M. Büttiker), 30 March	Bell’s inequalities and applied physics.
2007	Seminar talk	Lisbon, IST (Y. Omar), 2 March	Device-independent security proofs for quantum cryptography.
2007	Invited talk	Workshop “Thermal transport and relaxation: foundations and perspectives”, Bad Honnef (Germany), 8-10 January	Thermalizing Quantum Channels and Entanglement
2006	Seminar talk	Cambridge, DAMTP (A. Ekert), 21 November	Device-independent security proofs for quantum cryptography.
2006	Seminar talk	Barcelona, ICFO (A. Acín), 10 November	The COW protocol for practical quantum cryptography.
2006	Seminar talk	National University Singapore (A. Ekert), 8 September	Quantum non-locality – and a little more.
2006	Invited talk	SECOQC-QIT Workshop, Vienna, 21-25 August	Device-independent security proofs for quantum cryptography.
2006	Invited talk	Laser Physics ’06, Lausanne, 24-28 July	Device-independent security proofs for quantum cryptography.
2006	Invited talk	Macroscopic Quantum Coherence and Computing, Naples, 12-16 June	Bell-type experiments with quasi-particles: review of proposals.
2006	Seminar talk	Cambridge, DAMTP (R. Renner), 3 May	Dial COW for secrecy.
2006	Attendance	Philosophy of Science Workshop, Lausanne, 24 March	
2006	Invited talk	APS March Meeting, Baltimore, 14 March	Generic properties of non-local correlations.
2005	Invited talk	Workshop of Hasler Foundation, Morat-Loewenberg (Switzerland), 13-14 October	Quantum cryptography.
2005	Seminar talk	National University Singapore (A. Ekert), 30 September	On practical quantum cryptography
2005	Invited talk	On the present status of quantum mechanics, Mali Losinj (Croatia), 7-9 September	Simulation of entanglement.
2005	Seminar talk	DAMPT, Cambridge (A. Ekert), 5 July	Simulating quantum correlations with and without communication
2005	Seminar talk	Perimeter Institute for Theoretical Physics, Waterloo (F. Markopoulou), 6 April	Simulating quantum correlations with and without communication
2005	Contributed talk	Asia Pacific Workshop in Quantum Information Science 3, Singapore, 3-15 January	Simulating quantum correlations with and without communication
2004	Invited talk	DICE 2004, Piombino (Italy), 4-7 September	The non-locality of multiparticle states
2004	Invited talk	Latsis Symposium 2004, Lausanne, 1-3 March	Quantum interferences and correlations – from wave-particle duality to entanglement.
2004	Invited talk	Quantum Theory without Observers II, ZiF, Bielefeld (Germany), 2-6 February	Probing the inadequacy of communication as a mechanism for quantum correlations
2003	Poster	Solid-state quantum information processing, Amsterdam, 15-18 December	
2003	Invited talk	3 rd Informal Quantum Information Gathering, Garching (Germany), 2-5 December	The status of Bell’s inequalities in quantum information
2003	Contributed talk	Non-locality of quantum mechanics and statistical inference, Kyoto, 8-9 September	Bell’s inequalities detect efficient entanglement
2003	Contributed talk	Erato conference on Quantum Information Science, Kyoto, 4-6 September	Quantum cryptography protocols robust against photon number splitting attacks
2003	Seminar talk	Université de Fribourg (D. Baeriswyl), 26 March	Entangled qubits in quantum optics
2003	Seminar talk	Università dell’Insubria, Como (G. Casati), 6 March	Selected Topics in Quantum Cryptography
2002	Invited talk	Multiscale Methods in Quantum Mechanics, Accademia dei Lincei, Roma, 16-20 December	Classical bounds in quantum cryptography
2002	Invited talk	Workshop on quantum information and computation, ICTP, Trieste, 14-25 October	Quantum cryptography
2002	Invited talk	Workshop on quantum information and computation, ICTP, Trieste, 14-25 October	Entangled qubits in quantum optics
2002	Poster	International Conference on Theoretical Physics, Paris, 22-27 July	
2002	Poster	International Conference on Quantum Information, Oviedo (Spain), 13-18 July	
2002	Seminar talk	Technische Universität Braunschweig (R.F. Werner), 28 February	Thermalizing Quantum Machines: Dissipation and Entanglement
2001	Seminar talk	University of Stuttgart (G. Mahler), 20 November	Thermalizing Quantum Machines: Dissipation and Entanglement
2001	Poster	ESF Conference on Quantum Information: Theory, Experiments and Perspectives, Gdansk (Poland), 10-18	

Valerio Scarani Updated November 2020

		July	
2000	Attendance	Budmerice Workshop on Quantum Information, Budmerice (Slovak Rep.), 28-31 October	
2000	Poster	3 rd International Workshop on Mysteries, Puzzles and Paradoxes in Quantum Mechanics, Gargnano (Italy), 17-23 September	
2000	Invited talk	Workshop multitematico in fisica e matematica del Cerfim, Locarno (Switzerland), 9 September	Tension entre physique quantique et relativité: la parole à l'expérience (summary in: Note di matematica e fisica, n° 11)
2000	Poster	TMR-Network Meeting "New Advances in the Physics of Quantum Information", Vienna, 4-6 September	
1999	Contributed talk	13 th Swiss Symposium on NMR Spectroscopy, Genève, 12 October	⁵⁹ Co-NMR in ferromagnetic nanostructures: spin-lattice relaxation and magnetic excitations
1999	Contributed talk	Specialized Colloque Ampere "EPR, NMR and NQR in Solid State Physics", Pisa, 14-18 June	NMR Spin-lattice relaxation of ⁵⁹ Co in magnetic nanowires
1998	Invited talk	Workshop on Experimental Tests of relativistic quantum non-locality, Genève, 26-27 November	Bell Experiments with two inertial frames
1998	Poster	Workshop "NMR in electronic conductors", Mijoux (France) 20-24 September	
1998	Invited talk	Séminaire Daniel Dautreppe "Cohérence et Décohérence en physique", Grenoble 14-18 September	Quantum Computing: a new reading of an old book
1998	Poster	7 th European Magnetic Materials and Applications Conference EMMA 98, Zaragoza, 9-12 September	
1997	Poster	Journées d'Automne de la Société Française de Métallurgie et de Matériaux, Paris, 25-27 November	