



Posters

1. Mateus Araújo (University of Vienna)
Quantum circuits cannot control unknown operations
2. Ali Asadian (TU Vienna), Caslav Brukner and Peter Rabl
Probing macroscopic realism via Ramsey correlations measurements
3. Tomer Barnea (University of Geneva)
Non-locality of the multipartite W state upon losing parties
4. Tomer Barnea (University of Geneva)
Tripartite quantum state violating the hidden influence constraints
5. Bänz Bessire (University of Bern), Marcel Pfaffhauser, Christof Bernhard, Alberto Montana, André Stefanov and Stefan Wolf
Quantifying the non-locality of experimental qutrits without Bell inequalities
6. Walter Boyajian (University of Innsbruck)
Compressed Simulation of evolutions of the XY-model
7. Daniel Burchardt (LMU Munich), Norbert Ortegel, Kai Redeker, Robert Garthoff, Markus Rau, Michael Krug, Markus Weber, Wenjamin Rosenfeld and Harald Weinfurter
Fast and efficient detection of atomic states for a conclusive test of Bell's inequality
8. Valentina Caprara Vivoli (University of Geneva), Jean-Daniel Bancal, Charles Ci Wen Lim, Nicolas Sangouard, Pavel Sekatski and Nicolas Gisin
Detecting entanglement and nonlocality in path-entangled states
9. Thitinan Chittha (Kasetsart University, Bangkok), Surasak Chiangga and Till D. Frank
Analysis of entanglement photons generated by four-wave mixing in a nonlinear ring resonator
10. John V. Corbett (Macquarie University, N.S.W.)
On the spatial locations of quantum systems
11. Marti Cuquet (University of Innsbruck)
Entanglement properties of hypergraph states
12. Florian Curchod (University of Geneva), Yeong-Cherng Liang and Nicolas Gisin
Multipartite quantum correlations – indefinite causal order and delocalized nonlocality
13. Vincenzo D'Ambrosio (Sapienza Università di Roma), Adan Cabello and Fabio Sciarrino
Qudit based on the orbital angular momentum of light: an experimental tool for fundamental quantum mechanics

14. Remigiusz Augusiak, Maciej Demianowicz (ICFO – The Institute of Photonic Sciences),
Jordi Tura and Antonio Acín
Entanglement and nonlocality are inequivalent for any number of particles
15. Nadine Dörre (University of Vienna), Philipp Haslinger, Philipp Geyer,
Jonas Rodewald and Markus Arndt
Time domain matter *-wave interferometry with nanoparticles*
16. Arijit Dutta (University of Gdansk), Marcin Wiesniak and Marek Zukowski
Multisetting Bell inequalities for N spin *-1 systems avoiding*
contradiction
17. Ehtibar Dzhafarov (Purdue University) and Janne Kujala
A Kolmogorovian Account of Probabilistic Contextuality
18. Sandra Eibenberger (University of Vienna), Joseph Cotter, Xiaxi Cheng, Lukas
Mairhofer and Markus Arndt
Quantum interference experiments with complex molecules
19. Michael Epping (University of Duesseldorf), Hermann Kampermann and Dagmar Bruß
A construction of tripartite Bell inequalities
20. Martin Ringbauer, Dominic Berry, Andrew G. White and Alessandro Fedrizzi
(University of Queensland)
*A glimpse into the post-quantum world: simulating stronger-than quantum
correlations in photonic experiments*
21. Adrien Feix (University of Vienna)
Indefinite causal order in multipartite scenarios
22. Qiongyi He and Zbigniew Ficek (KACST Riyadh)
EPR paradox and quantum steering in a multimode optomechanical system
23. Fickler Robert (IQOQI Vienna, Austrian Academy of Sciences)
*Interface between path and OAM entanglement for high-dimensional photonic
quantum information*
24. Fickler Robert (IQOQI Vienna, Austrian Academy of Sciences)
Quantum Entanglement of Complex Photon Polarization Patterns in Vector Beams
25. Daniela Frauchiger (ETH Zurich) and Renato Renner
Are past events still real if we forget them?
26. Nicolai Friis (IQOQI Innsbruck, Austrian Academy of Sciences), Vedran Dunjko,
Wolfgang Dür and Hans J. Briegel
Implementing quantum control for unknown subroutines
27. Diego Frustaglia (Universidad de Sevilla), Jose-Pablo Baltanas, María-C Velazquez,
Armando Fernandez, Vicente Losada, Manuel-Jose Freire and Adan Cabello
Classical microwaves as a universal model system for quantum contextuality
28. Zeng-Bing Chen, Yao Fu (University of Science and Technology of China)
and Yu-Kang Zhao

Violations of Entropic Bell Inequalities with Coarse-Grained Quadrature Measurements for Continuous-Variable States

29. Christina Giarmatzi (Ecole Polytechnique), Ognian Oreshkov
(In)definite causal order with n parties
30. Dardo Goyeneche (Universidad de Concepción, Chile) and Karol Zyczkowski
Genuinely multipartite entangled states and orthogonal arrays
31. Chiara Greganti (University of Vienna)
Experimental test of a four-party GHZ-theorem
32. Miguel Navascués, Yelena Guryanova (University of Bristol), Matty J. Hoban and Antonio Acín
Almost quantum correlations
33. Yuji Hasegawa (Atominstytut, TU Vienna)
Error-disturbance uncertainty relation studied in successive spin-measurements
34. Meng Wang, Qiongyi He (Peking University) and Zbigniew Ficek
Dynamics of genuine three-mode quantum steering in an optomechanical system
35. Bas Hensen (Kavli Institute of Nanoscience Delft), Hannes Bernien, Wolfgang Pfaff, Machiel S. Blok, Lucio Robledo, Tim H. Taminiau and Ronald Hanson
Towards a loophole-free Bell test with spin qubits in diamond
36. Thomas Herbst (IQOQI Vienna, Austrian Academy of Sciences)
Entanglement swapping over a 143 km free -space link
37. Sebastian G. Hofer (University of Vienna), Witlef Wieczorek, Markus Aspelmeyer and Klemens Hammerer
Quantum entanglement and teleportation in pulsed cavity optomechanics
38. Holger F. Hofmann (Hiroshima University)
Negative probabilities as deterministic relations between observable properties: Why quantum physics must violate inequalities
39. Masataka Inuma (Hiroshima University), Yutaro Suzuki, Ryuji Kinoshita and Holger F. Hofmann
Experimental evaluation of error and disturbance of Ozawa's inequality in two level systems
40. Michael Keller (IQOQI Vienna, Austrian Academy of Sciences)
Towards the Creation and Detection of Momentum Entangled Atom Pairs
41. Andrei Khrennikov (Linnaeus University, Sweden)
CHSH inequality: Quantum probabilities as conditional probabilities
42. Matthias Kleinmann (Universität Siegen)
Sequences of projective measurements in generalized probabilistic theories
43. Ryszard Kostecki (Perimeter Institute for Theoretical Physics)
Quantum theory as a causal inference: a nonlinear noncommutative approach

44. Mario Krenn (University of Vienna)
A (100x100) -dimensional entangled quantum system
45. Stefan Kuhn (University of Vienna), Peter Asenbaum, Stefan Nimmrichter, Ugur Sezer and Markus Arndt
Cavity cooling of free nanoparticles in high vacuum
46. Klaas Landsman and Gijs J. Leegwater (Erasmus University Rotterdam)
The Colbeck–Renner claim on the completeness of quantum mechanics as a theorem
47. Law Yun Zhi (National University of Singapore)
Randomness extraction from quantum systems with different levels of trust in the working of the devices
48. Matthew Leifer (Perimeter Institute for Theoretical Physics)
 Ψ -epistemic models are exponentially bad at explaining the distinguishability of quantum states
49. Gabriela B. Lemos (IQOQI Vienna, Austrian Academy of Sciences), Victoria Borish, Garrett D. Cole, Sven Ramelow, Radek Lapkiewicz and Anton Zeilinger
Quantum Imaging with Undetected Photons
50. Gustavo Cañas, Sebastián Etcheverry, Esteban S. Gómez, Carlos Saavedra, Guilherme B. Xavier, Gustavo Lima (Universidad de Concepción Chile) and Adán Cabello
Simultaneously testing the Kochen–Specker and Bell theorems
51. Philipp Müller (Universität des Saarlandes), Pascal Eich, Stephan Kucera, José Brito, Christoph Kurz, Michael Schug, Jürgen Eschner
Quantum mechanics with single atoms and photons
52. Jacques Pienaar (IQOQI Vienna, Austrian Academy of Sciences)
Causal Inference in Quantum Networks
53. Igor Pikovski (University of Vienna)
Macroscopic Quantum Systems and Gravitational Phenomena
54. Matthew Pusey (Perimeter Institute for Theoretical Physics)
Beyond local causality: causation and correlation after Bell
55. Luisa Fernanda Ramirez (Universidad Nacional de Colombia)
Entanglement control in a quantum dot–microcavity system by an external magnetic field applied
56. Allan F. Randall (York University)
Algorithmic Synthetic Unity
57. Jibrán Rashid (Università della Svizzera Italiana) and Stefan Wolf
Equivalence Between Adaptive and Non-Adaptive Nonlocality Distillation Protocols
58. Jacquiline Romero (University of Glasgow), Daniel Giovannini, Daniel S. Tasca, Steve M. Barnett and Miles J. Padgett
Tailored two-photon correlation and fair-sampling: a cautionary tale

59. Wenjamin Rosenfeld (LMU Munich), Daniel Burchardt, Norbert Ortengel, Kai Redeker, Robert Garthoff, Julian Hofmann, Markus Weber and Harald Weinfurter
Heralded entanglement of single neutral atoms for a conclusive test of Bell's inequality
60. Denis Rosset (University of Geneva), Jean-Daniel Bancal and Nicolas Gisin
Bell inequalities from 1964 to 2014: a compendium
61. Junghee Ryu (University of Gdansk), Changhyoup Lee, Marek Żukowski and Jinhyoung Lee
Greenberger-Horne-Zeilinger theorem for N qudits
62. Dylan J. Saunders (Griffith University, Brisbane), Anthony J. Bennett and Geoff J. Pryde
Noise tolerant entanglement verification in an untrusted quantum network
63. Thomas Scheidl (IQOQI Vienna, Austrian Academy of Sciences)
Quantum communication with satellites, its preparatory terrestrial free-space demonstrations and future missions
64. Katharina Schwaiger (University of Innsbruck)
Optimal LOCC conversion of 3-qubit states
65. Yutaka Shikano (Institute for Molecular Science Japan)
On detecting the quantum correlations in the early universe
66. Lubomír Skála (Charles University in Prague)
Internal structure of the Heisenberg and Robertson-Schrödinger uncertainty relations
67. Michalis Skotiniotis (University of Innsbruck)
Improved quantum metrology using quantum error-correction
68. Wonmin Son (Centre for Quantum Technologies)
Axiomatic approach for the function bound of all Bell's inequalities
69. Cornelia Spee (University of Innsbruck)
Remote entanglement preparation
70. Yutaro Suzuki (Hiroshima University), Masataka Inuma, Ryuji Kinoshita and Holger F. Hofmann
Experimental reconstruction of complex joint probabilities for arbitrary photon polarization via sequential measurements of non-commuting observables
71. Marcelo Terra Cunha (Universidade Federal de Minas, Brazil)
Bit commitment based on Bell's theorem
72. Falk Töppel (Max Planck Institute for the Science of Light)
Robust test of Bell's inequality with amplified NOON states
73. Lev Vaidman (Tel Aviv University)
Past of a quantum particle: speakable after all!

74. Marijn A. M. Versteegh (University of Innsbruck), Michael E. Reimer, Aafke A. van den Berg, Gediminas Juska, Valeria Dimastrodonato, Agnieszka Gocalinska, Emanuele Pelucchi, Val Zwiller
Single Pairs of Time-bin Entangled Photons
75. Giuseppe Vallone, Alberto Dall'Arche, Marco Tomasin and Paolo Villoresi (University of Padova, Italy)
Exploiting Bell's inequality to extend the device-independent quantum key distribution
76. Bernhard Wittmann (IQOQI Vienna, Austrian Academy of Sciences), Sven Ramelow, Fabian Steinlechner, Nathan K. Langford, Nicolas Brunner, Howard M. Wiseman, Rupert Ursin and Anton Zeilinger
Loophole-free Einstein Podolsky Rosen Experiment via Quantum Steering
77. Gonzalo Carvacho, Gabriel Saavedra, Alvaro Cuevas, Jaime Cariñe, Miguel Figueroa, Jan-Åke Larsson, Adán Cabello, Paolo Mataloni, Gustavo Lima and Guilherme B. Xavier (Sapienza Università di Roma)
Genuine energy-time entanglement-based quantum key distribution over installed telecom fibers
78. Yu-Lin Zheng (University of Science and Technology of China), Yi-Zheng Zhen, Nai-Le Liu, Kai Chen, Zeng-Bing Chen and Jian-Wei Pan
Experimental Methods of Detecting Steering for Arbitrary Dimensional States
79. Magdalena Zych (IQOQI Vienna, Austrian Academy of Sciences)
Violation of Bell inequalities with time