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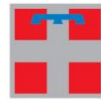
UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO



agorà scienza



CITTA' DI TORINO



REGIONE
PIEMONTE

Quantum 2019

From Foundations of Quantum Mechanics to
Quantum Information and Quantum Metrology &
Sensing

(ad memoriam of Carlo Novero)







Program

May 26 - June 1, 2019



Sunday May 26	Monday May 27	Tuesday May 28			Wednesday May 29	Thursday May 30			Friday May 31		
	Opening and Welcome										
	Session I 8:05 - 9:55	Session V 8:05 - 10:05			Session IX 8:00 - 09:45	Session XIII 8:00 - 10:00			Session XVII 8:00 - 10:00		
	Session II 10:20 - 12:20	Session VI 10:30 - 12:50			Session X 10:10 - 12:50	Session XIV 10:20 - 12:40			Session XVIII 10:35 - 12:35		
	Session III 13:15 - 15:15	Session VII 13:50 - 15:50			Session XI 13:50 - 16:10	Session XV 13:40 - 16:00			Session XIX 14:00 - 16:00		
Public Event 18:00	Session IV 15:35 - 19:15	VIII A 16:10 - 19:10	VIII B 16:30 - 18:55	VIII C 16:10 - 18:45	Session XII 16:10 - 18:30	XVI A 16:25 - 18:50	XVI B 16:25 - 18:45	XVI C 16:25 - 18:45	XX A 16:25 - 18:45	XX B 16:25 - 18:45	XX C 16:30 - 18:35
	Public Event				Poster Session 18:30 - 19:20				Closing Remarks		
					Social Dinner 19:30				Farewell Party		

Colours legend:

 Cavallerizza	 Principi d'Acaja	 Hotel NH
 Aula Magna Rettorato	 Aula Multifunzione	 t.b.c.

Sunday 26 (Aula Magna Rettorato)

18:00

Opening reception

Monday 27 (Cavallerizza)

Session I (Cavallerizza) - Chairperson: M. Genovese

07:50-08:05	Arrival and informal meetings of participants	
08:05-08:15	E. Predazzi	“Ad memoriam of Carlo Novero”
08:15-08:30		Greetings from Authorities
08:35-08:55	M. Plenio	t.b.c.
08:55-09:15	J. Wrachtrup	Quantum control by measurement
09:15-09:35	M. W. Mitchell	Making sense of the “energy resolution limit” in quantum sensing
09:35-09:55	S. Padua	Automated quantum operations and simulation in photonic qutrits

Coffee break (sponsored by Single Quantum)

Session II (Cavallerizza) - Chairperson: E. Predazzi

10:20-10:40	U. L. Andersen	Distributed quantum sensing
10:40-11:00	L. Vaidman	Communication without particles traveling between Alice and Bob
11:00-11:20	A. Howell	Compressive quantum sensing
11:20-11:40	J. Eisert	Verifying boson samplers and other near-term quantum devices
11:40-12:00	A. G. White	Communicating via ignorance & imaging via counting
12:00-12:20	A. Pathak	Nonclassicality and secure quantum communication

Lunch interval

Session III (Cavallerizza) - Chairperson: M. Plenio

13:15-13:35	M. Ridza Wahiddin	Single quantum gates and Bell’s states using controlled adiabatic evolutions
13:35-13:55	F. Jelezko	t.b.c.
13:55-14:15	D. N. Jamieson	From single donor qubits in isotopically engineered silicon to a large scale quantum device
14:15-14:35	F. Petruccione	From Unitary to Open Quantum Walks: generalization and unification
14:35-14:55	K. Banaszek	Beating the Rayleigh limit using two-photon interference
14:55-15:15	J. Peřina	Reconstruction of joint photon-number distributions of twin beams incorporating spatial noise reduction

Coffee break

Session IV (Cavallerizza) - Chairperson: P. Tombesi

15:35-15:55	L. L. Sanchez-Soto	Compressed sensing of twisted photons
15:55-16:15	F. Benatti	Quantum fluctuation approach to Josephson junctions
16:15-16:35	C. O. Curceanu	Challenging Quantum mechanics underground by hunting X Rays whispers in the cosmic silence
16:35-16:55	L. Maccone	Quantum measurements of time
16:55-17:15	D. Vitali	Optomechanical systems in the quantum regime

17:15-17:35	H.-T. Elze	Interacting quantum models by approximation from multipartite cellular automata
17:35-17:55	F. De Martini	Cosmological constant: temperature effects on the Higgs field
17:55-18:15	A. K. Pan	Quantum preparation contextuality powers bit Random Access Code
18:15-18:35	S. Olivares	Phase-shift-keyed binary communication in noisy channels: when squeezing can help
18:35-18:55	M. Fedorov	Entanglement of multiphoton polarization Fock states and their superpositions
18:55-19:15	t.b.a.	t.b.c.

Tuesday 28

Session V (Cavallerizza) - Chairperson: A. Garuccio

08:00-08:05	Arrival of participants	
08:05-08:25	F. Illuminati	Non-commutativity, incompatibility of quantum states, and quantum coherence.
08:25-08:45	C. Silberhorn	Quantum optics and information science in multi-dimensional photonics networks
08:45-09:05	B. Englert	t.b.c.
09:05-09:25	N. Gisin	Quantum non-locality in networks
09:25-09:45	H. Zbinden	Long distance and high speed Quantum Key Distribution
09:45-10:05	A. Jamiołkowski	On efficient methods of investigation of nonpositive maps

Coffee break (sponsored by MPD)

Session VI (Cavallerizza) - SIQUST - Chairperson: P. Olivero

10:30-10:50	S. Kück	Realization and metrological characterization of absolute single-photon sources for quantum radiometry
10:50-11:10	S. Praver	Critical Components for Integrated Diamond Quantum Photonic Devices
11:10-11:30	C. Becher	Spin properties and quantum control of group-IV vacancy centers in diamond
11:30-11:50	T. Ohshima	Position-selective silicon vacancy formation in silicon carbide devices using proton beam writing
11:50-12:10	J.-F. Roch	t.b.c.
12:10-12:30	J. Meijer	Status of the Leipzig diamond colour centre screening project
12:30-12:50	M. Nesladek	Electrical readout of coherently manipulated single NV diamond spin qubits at room temperature
12:50-13:10	C. Toninelli	t.b.c.

Lunch interval

Session VII (Cavallerizza) - Chairperson: F. Jelezko

14:00-14:20	J. McCallum	Superconductivity in Degenerately-doped Si Nanowire Devices
14:20-14:40	G. Leuchs	t.b.c.
14:40-15:00	F. Reinhard	Decoherence control by feedforward decoupling
15:00-15:20	A. Bramati	Integrated single photon sources with colloidal semiconductor nanocrystals
15:20-15:40	T. Calarco	t.b.c.
15:40-16:00	A. D. Greentree	Quantum trilateration of two particles and the role of photons in nanoscopy

Coffee break

Parallel Session VIII A (Cavallerizza) - Chairperson: S. Praver

16:20-16:40	B. C. Gibson	Nanoscale biophotonics: using nanodiamond and fibre optics to understand the inner workings of the body
16:40-17:00	M. Trupke	Quantum Technology with Spin Centres in Semiconductors
17:00-17:20	J. Achard	Engineering Doped Single Crystal Diamond Films For

		Quantum Applications
17:20-17:40	A. Huck	Coupling germanium-vacancy centers in diamond to a fiber based micro cavity
17:40-18:00	I. Vlasov	Controllable formation of single-photon emitters in diamonds
18:00-18:20	E. Neu	Optimal nanoscale quantum sensor-devices based on individual color centers in diamond
18:20-18:40	S. Eaton	t.b.c.
18:40-19:00	M. López	Detection efficiency calibration of InGaAs/InP single-photon detectors
Parallel Section VIII B (Principi d'Acaja) - Chairperson: L. Maccone		
16:20-16:40	E. Cohen	Completely top-down hierarchical structure in quantum mechanics
16:40-17:00	P. Giorda	State independent uncertainty relations from eigenvalue minimization
17:00-17:20	L. Castellani	History operators in QM
17:20-17:40	E. Losero	Quantum Interferometry for Planck scale effects detection
17:40-18:00	E. Moreva	Experiments for visualising time as an emergent property of quantum correlations
18:00-18:15	L. Neves	Ptychographic reconstruction of pure quantum states and its optical implementation
18:15-18:30	J. Nemirovsky	The Principle of Spin-Spacetime Censorship
18:30-18:45	A. Tosini	Thirring quantum cellular automaton
18:45-19:00	Hou-Ying Yau	Quantum Field with Time as a Dynamical Variable and Spin-1/2 Particle
Parallel Section VIII C (Aula Magna Rettorato) - Chairperson: M. D'Angelo		
16:20-16:40	J. R. Croca	A complex nonlinear approach for understanding quantum physics
16:40-17:00	A. Delgado	Approaching the Quantum Precision Limit in the Estimation of Quantum States
17:00-17:15	E. Gouzien	Hybrid entanglement with time-bin coding
17:15-17:30	I. I. Arkhipov	Complete identification of nonclassicality of Gaussian states via intensity moments
17:30-17:45	Y. Shen	Separability of Completely Symmetric States in Multipartite System
17:45-18:00	Y. C. Liu	Efficient verification of Dicke states
18:00-18:15	S.-H. Tan	Client-friendly Continuous-variable Blind and Verifiable Quantum Computing
18:15-18:30	P. R. Sharapova	Integrated multimode SU (1,1) interferometer
18:30-18:45	M. Giammarchi	First observation of antimatter wave-interference
18:45-19:00	D. Gatto	Distributed Quantum Metrology with Squeezed States

Wednesday 29

Session IX (Cavallerizza) - BECOME- Chairperson: S. Kulik

07:55	Arrival of participants	
08:00-08:20	V. Tamma	The quantum information supremacy of quantum interference based on correlation measurements in linear optics networks
08:20-08:40	J. P. Torres	Optical coherence tomography, and other fundamental things, with a nonlinear interferometer
08:40-09:00	J. C. F. Matthews	Sub shot noise measurements of transmission with each photon flux
09:00-09:20	A. Gatti	t.b.c.
09:20-09:40	Z. Hradil	Optical resolution at the quantum Fisher information limit

Coffee break

Session X (Cavallerizza) - Chairperson: P. Villoresi

10:10-10:30	J. von Zanthier	Super- and subradiance in free space
10:30-10:50	N. Lutkenhaus	Quantum Communication with Coherent States of Light
10:50-11:10	A. Lvovsky	t.b.c.
11:10-11:30	G. Weihs	Creation and interference of multiphoton states
11:30-11:50	S. Pascazio	t.b.c.
11:50-12:10	J. Piilo	Full control of dephasing dynamics — complex quantum networks
12:10-12:30	S. Polyakov	t.b.c.
12:30-12:50	G. Kurizki	Can we save the quantum revolution?

Lunch interval

Session XI (Cavallerizza) - Chairperson: P. Mataloni

13:50-14:10	M. D'Ariano	t.b.c.
14:10-14:30	A. C. Elitzur	A More Fundamental Reality Beneath Quantum Phenomena? Theory and Experiment
14:30-14:50	A. Datta	Fault-tolerant quantum metrology
14:50-15:10	H. de Guise	Sum rules and coset functions in multiphoton interferometry
15:10-15:30	A. Smerzi	Sensitivity Bounds for Multiparameter Quantum Metrology
15:30-15:50	S. Kulik	t.b.c.

Coffee break

Session XII (Cavallerizza) - Chairperson: M. Rasetti

16:10-16:30	P. Kok	Generating maximal entanglement between spectrally distinct solid-state emitters
16:30-16:50	L. Krivitsky	Infrared Metrology with Visible Photons: Spectroscopy, Imaging, and Polarimetry
16:50-17:10	C. Macchiavello	Optimal entanglement witnesses from limited local measurements
17:10-17:30	F. Raffa	t.b.c.
17:30-17:50	P. Mataloni	Experimental Realization of an Innovative Phase-Stable Bulk-Optic Scheme for Quantum Walks.

17:50-18:10	H. M. Moya-Cessa	Entropy for mixed states, degree of mixedness and virtual atoms
18:10-18:30	V. Karimipour	Entanglement-Assisted Communication in the Absence of Shared Reference Frame
18:30-19:15	Poster Section (beer party)	
19:30	Social Dinner	

Thursday 30

Session XIII (Cavallerizza) - Chairperson: J. Wrachtrup

07:55	Arrival of participants	
08:00-08:20	P. Horodecki	t.b.c.
08:20-08:40	M. Zukowski	t.b.c.
08:40-09:00	G. Adesso	Towards superresolution surface metrology: Quantum estimation of angular and axial separations
09:00-09:20	M. Barbieri	Simulating thermodynamics with photons
09:20-09:40	A. Valencia	Coupling different degrees of freedom of light to study open quantum systems
09:40-10:00	F. Caruso	t.b.c.

Coffee break

Session XIV (Cavallerizza) - Chairperson: C. Monken

10:20-10:40	A. Porzio	Continuous Variable Entanglement over Different Degree of Freedom for Multiple Bipartite State
10:40-11:00	S. Mancini	Union bound for quantum information processing
11:00-11:20	G. Marmo	Quantum States, Relative Entropies and Quantum Metrics ,a Tomographic Reconstruction
11:20-11:40	P. Villaresi	t.b.c.
11:40-12:00	Y. Kim	Direct quantum process tomography via measuring sequential weak values of incompatible observables
12:00-12:20	G. Long	t.b.c.
12:20-12:40	M. Peev	t.b.c.
12:40-13:00	F. Bovino	t.b.c.

Session XV (Cavallerizza) - Chairperson: A. Elitzur

13:40-14:00	M. Paris	Universal Quantum Magnetometry with Spin States at Equilibrium
14:00-14:20	I. Jex	t.b.c.
14:20-14:40	F. Sciarrino	t.b.c.
14:40-15:00	S. Bose	t.b.c.
15:00-15:20	C. Monken	Energy, momentum and production rate of photonic Cooper pairs
15:20-15:40	J. Seiler	t.b.c.
15:40-16:00	Y. Shih	The physics of X-ray ghost microscope

Coffee Break

Parallel Section XVI - A (Cavallerizza) Chairperson: M. Mitchell

16:25-16:45	A. Cavanaugh	Generation of two- and three-photon states in an ultrathin nonlinear crystal
16:45-17:00	A. Allevi	Testing nonclassicality in lossy transmission and detection systems
17:00-17:15	A. Bisio	Higher Order Quantum Computation and Quantum Causal Structures
17:15-17:30	G. Castagnoli	On the temporally nonlocal character of the quantum computational speedup
17:30-17:45	A. D'Errico	Topological quantum walks in the two-dimensional transverse momentum space of photons

17:45-18:00	C. Lee	Optimality of Gaussian and non-Gaussian measurements for Gaussian metrology
18:00-18:15	K. G. Katamadze	Counterintuitive properties of the photon annihilation, applied to a thermal state of light: energy increasing and the quantum vampire effect
18:15-18:30	L. A. Markovich	Inferences on Quantum Tomography of Time-Dependent Nonlinear Hamiltonian Systems
18:30-18:45	A. Ferraro	Resource theory of Wigner negativity and applications in optomechanical systems
Parallel Section XVI B (Principi d'Acaja) - Chairperson: J. Forneris		
16:25-16:45	G. Kh. Kitaeva	Generation of optical-terahertz biphotons under strongly non-degenerate spontaneous parametric down-conversion
16:45-17:05	A. Peruzzo	Hybrid quantum photonics
17:05-17:20	D. Y. Fedyanin	Color Centers in Silicon Carbide: Pushing the Limits of Electrically Driven Single-Photon Sources
17:20-17:35	M. Capelli	Increased creation efficiency of nitrogen-vacancy centres in diamond by electron beam irradiation at high temperature
17:35-17:50	M. De Feudis	NV, SiV and GeV centers incorporated into CVD nanodiamonds : study of the growth process and the optical properties.
17:50-18:05	X. Xu	Single-photon emission at 800 nm from colloidal quantum dots on sapphire surface at room temperature
18:05-18:20	I. A. Khramtsov	Temporal Dynamics of Electrically Driven Single-Photon Sources Based on Color Centers in Diamond
18:20-18:35	S. Ditalia Tchernij	t.b.c.
18:35-18:50	P. Traina	t.b.c.
18:50-19:10	N.Imoto	t.b.c.
Parallel Section XVI C (Aula Magna Rettorato) - Chairperson: Y. Shih		
16:25-16:45	A. Isar	Evolution of Quantum Coherence of Two-Mode Gaussian Systems in a Thermal Environment
16:45-17:00	V. C. Usenko	Compensating side-channel effects in continuous-variable quantum key distribution
17:00-17:15	P.-A. Moreau	Bell inequality in full field images of spontaneous parametric down-conversion.
17:15-17:30	R. Augusiak	Generalizing the CHSH Bell inequality and self-testing of two-qutrit quantum systems
17:30-17:50	H.Nikolic	Bohmian mechanics for instrumentalists
17:50-18:05	A. Carmi	Relativistic Independence – A new framework for analysing nonlocality
18:05-18:20	G. Ferrini	Probabilistic Fault-Tolerant Universal Quantum Computation and Sampling Problems in Continuous Variables

18:20-18:35	F. Giraldi	Regularizing the variations of the environmental energy and the information flow via special initial correlations and spectral gaps
18:35-18:50	L. Qian	Decomposition of the completely symmetric state
18:50-19:05	P. L. Saldanha	Experimental Fock-State Superradiance

Friday 31

Session XVII (Cavallerizza) - Chairperson: F. Illuminati

07:55	Arrival of participants	
08:00-08:20	M. Chekhova	Nonlinear optics with bright squeezed vacuum: high efficiencies, rogue waves, and Pareto photon distribution
08:20-08:40	V.Makarov	Source side-channels in quantum cryptography
08:40-09:00	R. Filip	Quantum non-Gaussian light and matter
09:00-09:20	L. Memarzadeh	Group covariant channels and testing extremality
09:20-09:40	O. Pfister	Non-Gaussian Quantum state tomography and engineering using photon-number resolved detection
09:40-10:00	L. A. Wu	Towards High-Resolution Ghost Imaging with an Incoherent X-ray Source

Coffee break

Session XVIII (Cavallerizza) - Chairperson: M. Chekhova

10:25-10:45	S. Takeuchi	Nanofiber integrated single light emitters for efficient single photon sources
10:45-11:05	R. Fazio	Time crystals and quantum synchronisation
11:05-11:25	M. Bondani	Tomography of Quantum-States with Photon-Number-Resolving Homodyne Detection
11:25-11:45	V. Vedral	Entanglement between living bacteria and quantized light
11:45-12:05	J. A. Bergou	Sequential measurements: optimally getting around the collapse postulate and the no-broadcasting theorem
12:05-12:25	M. Agio	t.b.c.
12:25-12:45	F. Daneshgar	t.b.c.

lunch

Session XIX (Cavallerizza) – Chairperson:

14:00-14:20	S. Tanzilli	Coherent optical frequency conversion for polarisation entangled qubits
14:20-14:40	V. I. Man'ko	Quantum Suprematism and the Probability Distribution as an Alternative of the Wave Function and Density Matrix in Conventional Quantum Theory
14:40-15:00	M. Bellini	Delocalized photon addition for entangling macroscopic light states
15:00-15:20	F. Piacentini	t.b.c.
15:20-15:40	L. Kwek	Quantum Synchronization: From Squeezing to Other Applications
15:40-16:00	P. Zanardi	Quantifying the relative incompatibility of Quantum observables

Coffee break

Parallel Section XX A (Cavallerizza) Chairperson: G. Weihs

16:25-16:45	M. Mondin	t.b.c.
16:45-17:05	G. L. Giorgi	Machine Learning Applied to Quantum Synchronization-Assisted Probing
17:05-17:25	L. La Volpe	Single-Pass Squeezing and Spatio-temporal Modes: Theoretical model and experimental characterization
17:25-17:45	A. Meda	t.b.c.
17:45-18:00	K. An	Experimental Observation of Cooperative Absorption of

		Phase-Correlated Atoms
18:00-18:15	G. S. Paraoanu	Experimental Quantum-Enhanced Magnetometry Using a Superconducting Circuit
18:15-18:30	S. Sarkar	Self-testing of maximally entangled state of arbitrary local dimension
Parallel Section XX B (Principi d'Acaja) - Chairperson: M. Fedorov		
16:25-16:45	W. Bruzda	t.b.c.
16:45-17:05	M. Rossi	Continuous measurements for advanced quantum metrology
17:05-17:25	A. Avella	t.b.c.
17:25-17:40	S. Straupe	Reconfigurable Laser-Written Integrated Photonic Circuits for Linear Optical Quantum Computing
17:40-17:55	F. Cardano	Topological phenomena in one-dimensional quantum walks of structured light
17:55-18:10	H. Zoubi	Nonlinear Quantum Optics in Nanoscale Waveguides
18:10-18:25	J. Shang	Convex optimization over classes of multiparticle entanglement
Parallel Section XX C (Aula Magna Rettorato) - Chairperson:		
16:30-16:50	M. F. Pusey	Contextuality without access to a tomographically complete set
16:50-17:10	F. Pepe	New perspectives in Correlation Plenoptic Imaging
17:10-17:25	G. Carcassi	The Fundamental Connections Between Classical Hamiltonian Mechanics, Quantum Mechanics and Information Entropy
17:25-17:40	A. Naddeo	A quantum low-energy gravity model free from causality violation problems
17:40-17:55	M. Arnhem	Optimal estimation of parameters encoded in coherent states quadratures
17:55-18:10	K. Thapliyal	Nonclassical features in off-resonant Raman process
18:10-18:25	A. Nomerotski	Spatial characterization of photonic polarization entanglement over large distances

18:30-19:20 Closing - Beer party – Best poster award ceremony
sponsored by **Entropy**

Saturday 1 June (Physics Faculty)	
10.00-11.00	Visit of Turin University laboratories
08:30-12:00	Space for Informal meetings

POSTER SESSION

Posters exhibition is open during the whole duration of the Workshop

The official presentation is scheduled on Wednesday

1	M. V. Bastrakova	Non-destructive measurement of superconducting qubit states by Josephson bifurcation oscillator
2	A. Benmachiche	Single quantum gates and Bell's states using the controlled adiabatic evolutions
3	N. Borshchevskaia	Separated Schmidt modes in angular spectrum of biphotons
4	A. Gaysarov	Theoretical study of the optical-terahertz biphoton fields by means of the generalized Kirchhoff law
5	A. Geraldi	All-Optical Implementation of Collision Based Evolutions of Open Quantum Systems
6	B. Giacomelli	Realization of Popper's EPR-like Experiment with Mesoscopic Pseudo-thermal Light
7	R. Grimaudo	Cooling of Many-Body Systems via Selective Interactions
8	A. Iwamoto	Theoretical study of temporal quantum interference using a quantum fluxon with an internal degree of freedom
9	I. U. Jeon	Measurement-device-independent verification of coherent channel extension
10	H. Katayama	Quantum walks under the continuous weak measurement
11	V. I. Koroli	Quantum-statistical and squeezing properties of the quantized cavity field interacting with laser cooled and trapped three-level radiator
12	R. Machulka	Evolution of coherence properties of intense twin beams
13	A. Messina	Coupling-assisted Landau-Majorana-Stueckelberg-Zener transitions in two-interacting-qubit systems
14	T. Mihaescu	Random Entanglement Witnesses for Gaussian States
15	D. H. Oaknin	Bell vs. Galileo: the proof of the inequality clashes with the principle of relativity
16	D. Gatto	Distributed Quantum Metrology with Squeezed states
17	N. Samantaray	A model showing change of photon statistics of twin beam state from thermal to Poissonian and the advantage of photon subtraction in twin beam state for loss estimations.
18	S. Sarkar	Self-testing of maximally entangled state of arbitrary local dimension
19	M. Arnhem	Optimal estimation of parameters encoded in coherent states quadratures
20	S. Virzì	t.b.c.
21	E. Rebufello	t.b.c.
22	E. Bernardi	High sensitivity magnetometry with Nitrogen-Vacancy centers in

		diamond
23	G. Ortolano	(Towards) Quantum Enhanced "background oriented schlieren"
24	C. Lee	Optimal measurements for quantum fidelity and quantum Fisher information of Gaussian states
25	D. H. Oaknin	Bell vs. Galileo: the proof of the inequality clashes with the principle of relativity
26	S. Sarkar	Self-testing of maximally entangled state of arbitrary local dimension
27	D. Bacco	In-field demonstration of a quantum key distribution system in the metropolitan Florence area
28	A. Benavoli	Computational Complexity and the Nature of Quantum Mechanics
29	G. Atkinson	Fisher Information with Continuous Variable Quantum Resources
30	C. Okoth	Non-phase matched spontaneous parametric down conversion: generation of states with huge spatial entanglement
31	M. Milajiguli	Adversarial vs cooperative quantum estimation
32	B.I. Bantysh	Quantum process tomography with imperfect measurements
33	D. Branford	Fundamental limits in detecting localisation effects
34	G. Chesi	Quantifying nonclassicality and qualifying photodetectors through autocorrelation functions
35	D. Das	Facets of bipartite nonlocality sharing by multiple observers via sequential measurements
36	G. Frascella	Spatially multimode SU(1,1) interferometer
37	É. Gouzien	Hybrid entanglement with time-bin coding
38	S. Kanjilal	Simultaneous Correlations in mutually unbiased bases as resource for Quantum-information processing tasks
39	T. Kiyohara	Serial-parallel conversion for a stream of single photons using heralding signals
40	E. V. Kovalkov	Quantum state engineering with twisted photons via adaptive shaping of the pump beam
41	M. Lostaglio	Anomalous weak values and contextuality: robustness, tightness, and imaginary parts
42	R. N. M. Nasir	Mutually Unbiased Unitary Bases
43	V. Prakash	Tunable, Narrow Band Correlated Photons Interfaced with Atomic Systems
44	A. Riccardi	Multipartite steering inequalities based on entropic uncertainty relations
45	T. Santiago-Cruz	Single-photon spectroscopy of non-phase matched spontaneous parametric down conversion
46	J. Shang	Convex optimization over classes of multiparticle entanglement
47	S. Sasmal	Certifying maximal amount of Genuine Randomness for any two-qubit entangled state
48	G. Styliaris	Mixing of quantum states under Markovian dissipation and coherent control
49	V. Sukharnikov	Quantum-optical Gate for Non-classical Squeezed Light
50	K. Thapliyal	Quantum Zeno effect in a PT symmetric optical system

51	L. Chiatti	A new version of quantum mechanics with definite macroscopic states
52	P. Malpani	On the phase precision parameter of nonclassical states
53	C. Oh	Optimal measurements for quantum fidelity and quantum Fisher information of Gaussian states
54	A. C. Cardoso	Classical imaging with undetected light