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		
Opening 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
					Poster Session 18:30 - 19:20				Closing Remarks		
					Social Dinner 19:30				Farewell Party		

Colours legend:

- Aula Cavallerizza
- Aula Principi d'Acaja
- Hotel NH
- Aula Magna Rettorato
- Aula Multifunzione
- Aula ex blu-Paini (CLab)
- Aula mutimediale

Sunday 26 (Aula Magna Rettorato)	
18:00	Opening reception (v.Po n°17 – v. Verdi n°8)

Monday 27 (Cavallerizza)		
Session I (Cavallerizza) - Chairperson: M. Genovese		
07:50-08:00	Arrival and informal meetings of participants	
08:00-08:15	E. Predazzi	"Ad memoriam of Carlo Novero"
08:15-08:30		Greetings from Authorities
08:35-08:55	J. Wrachtrup	Quantum control by measurement
08:55-09:15	L. Vaidman	Communication without particles traveling between Alice and Bob
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	K. Banaszek	Beating the Rayleigh limit using two-photon interference
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: L. Vaidman		
13:35-13:55	F. Jelezko	Coherent control of solid state nuclear spin nano-ensembles
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	N. Cerf	Hong-Ou-Mandel effect under partial time reversal: a destructive interference effect in the amplification of light
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: D. N. Jamieson		
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	H.-T. Elze	Interacting quantum models by approximation from multipartite cellular automata

17:15-17:35	F. De Martini	Cosmological constant: temperature effects on the Higgs field
17:35-17:55	M. Paris	Universal Quantum Magnetometry with Spin States at Equilibrium
17:55-18:15	M. Fedorov	Entanglement of multiphoton polarization Fock states and their superpositions
18:15-18.35	N. Malossi	Electro-opto-mechanical transducer towards quantum regime
18:35-18:55	L. La Volpe	Single-Pass Squeezing and Spatio-temporal Modes: Theoretical model and experimental characterization

Tuesday 28		
Session V (Cavallerizza) - Chairperson: G. Weihs		
08:00-08:20	Arrival of participants	
08:20-08:40	C. Silberhorn	Quantum optics and information science in multi-dimensional photonics networks
08:40-09:00	B. Englert	Evidence in quantum data
09:00-09:20	N. Gisin	Quantum non-locality in networks
09:20-09:40	P. Villoresi	Advances in Temporal Modes for Space Quantum Communications
09:40-10:00	A. Jamiolkowski	On efficient methods of investigation of nonpositive maps
Coffee break (sponsored by MPD)		
Session VI (Cavallerizza) - SIQUST - Chairperson: P. Olivero		
10:20-10:40	S. Kück	Realization and metrological characterization of absolute single-photon sources for quantum radiometry
10:40-11:00	S. Prawer	Critical Components for Integrated Diamond Quantum Photonic Devices
11:00-11:20	C. Becher	Spin properties and quantum control of group-IV vacancy centers in diamond
11:20-11:40	T. Ohshima	Position-selective silicon vacancy formation in silicon carbide devices using proton beam writing
11:40-12.00	J.-F. Roch	Quantum sensors, diamond anvils and high-pressure physics
12:00-12:20	J. Meijer	Status of the Leipzig diamond colour centre screening project
12:20-12:40	M. Nesladek	Electrical readout of coherently manipulated single NV diamond spin qubits at room temperature
12:40-13:00	C. Toninelli	Organic Molecules In Integrated Quantum Devices
Lunch interval		
Session VII (Cavallerizza) - Chairperson: P. Tombesi		
14:00-14:20	J.C. McCallum	Superconductivity in Degenerately-doped Si Nanowire Devices
14:20-14:40	M. Blasone	Lorentz boosts of bispinor Bell-like states
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	A. D. Greentree	Quantum trilateration of two particles and the role of photons in nanoscopy
15:40-16:00	T. Calarco	The world's fattest Schroedinger cat
Coffee break		

Parallel Session VIII A (Cavallerizza) - Chairperson: S. Prawer		
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. 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	V. Bharadwaj	Femtosecond Laser Writing: A powerful tool for Integrated Diamond Quantum Photonics
18:40-19:00	M. López	Detection efficiency calibration of InGaAs/InP single-photon detectors
Parallel Section VIII B (Principi d'Acaja) - Chairperson: G. Kurizki		
16:20-16:40	E. Cohen	Weak value without weak measurements
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 enhanced correlated 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- Current and future trends in Quantum Optics-based measurements methods - Chairperson: L. Maccone		
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	Engineering multimode entangled states in nonlinear photonic crystals
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	Interfacing single-rail, dual-rail and continuous-variable optical qubits
11:10-11:30	G. Weihs	Creation and interference of multiphoton states
11:30-11:50	J. Piilo	Full control of dephasing dynamics — complex quantum networks
11:50-12:10	S. Polyakov	Resource-Prudent Communication via Quantum State Discrimination
12:10-12:30	G. Kurizki	Can we save the quantum revolution?
Lunch interval		
Session XI (Cavallerizza) - Chairperson: A. Pathak		
13:50-14:10	M. D'Ariano	What we have learned about quantum theory from its informational derivation
14:10-14:30	A. C. Elitzur/E.Cohen	Relativistic Independence – A new framework for analyzing nonlocality
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	H. Zbinden	Long distance and high speed Quantum Key Distribution
Coffee break		
Session XII (Cavallerizza) - Chairperson: V. Karimipour		
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	Reaching for Quantumness Through Generalized Squeezed States
17:30-17:50	A. Geraldi	Experimental Realization of an Innovative Phase-Stable Bulk-Optic Scheme for Quantum Walks.
17:50-18:05	A. Zwick	Quantum sensing to push the resolution limits in Magnetic Resonance Imaging
18:05-19:15	Poster Section (beer party)	
19:30	Social Dinner	
17:00-18:30	Public conference at Turin Academy of Science (in Italian). M. Paris "Verso la metrologia quantistica (passando per Torino)"	

Thursday 30		
Session XIII (Cavallerizza) - Chairperson: S. Padua		
07:55	Arrival of participants	
08:00:08:20	P. Horodecki	Relativistic causality and quantum information – two perspectives.
08:20-08:40	M. Zukowski	General mapping of multi-qudit entanglement conditions to non-separability indicators for quantum optical fields
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	Noise-robust quantum sensing via optimal multi-probe spectroscopy
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	G. Leuchs	Quantum Communication using satellites
11:40-12:00	Y. Kim	Direct quantum process tomography via measuring sequential weak values of incompatible observables
12:00-12:20	M. Peev	Quantum Key Distribution Networks
12:20-12:40	V. Karimipour	Entanglement-Assisted Communication in the Absence of Shared Reference Frame
12:40-13:00	F. Bovino	t.b.c.
Session XV (Cavallerizza) - Chairperson: M. Chekhova		
13:40-14:00	I. Jex	t.b.c.
14:00-14:20	S. Olivares	Phase-shift-keyed binary communication in noisy channels: when squeezing can help
14:20-14:40	F. Pepe	New perspectives in Correlation Plenoptic Imaging
14:40-15:00	S. Bose	Nonclassicality with Mesoscopic Levitated Objects
15:00-15:20	C. Monken	Energy, momentum and production rate of photonic Cooper pairs
15:20-15:40	Y. Shih	The physics of X-ray ghost microscope
15:40-16:00	J. Seiler	t.b.c.
Coffee Break		
Parallel Section XVI - A (Cavallerizza) Chairperson: L. Krivitsky		
16:25-16:45	A. Cavanna	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	F. Cardano	Topological phenomena in one-dimensional quantum walks of structured light
17:30-17:45	C. Lee	Optimality of Gaussian and non-Gaussian measurements for Gaussian metrology
17:45-18:00	K. G. Katamadze	Counterintuitive properties of the photon annihilation, applied to a thermal state of light: energy increasing and the quantum vampire effect
18:00-18:15	L. A. Markovich	Inferences on Quantum Tomography of Time-Dependent Nonlinear Hamiltonian Systems
18:15-18:30	A. Ferraro	Resource theory of Wigner negativity and applications in optomechanical systems
18:30-18:50	R. Floreanini	Fluctuation relations and detailed balance conditions for quantum thermalizing maps
Parallel Section XVI B (CLab) - 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	D. Y. Fedyanin	Color Centers in Silicon Carbide: Pushing the Limits of Electrically Driven Single-Photon Sources
17:05-17:20	M. Capelli	Increased creation efficiency of nitrogen-vacancy centres in diamond by electron beam irradiation at high temperature
17:20-17:35	M. De Feudis	NV, SiV and GeV centers incorporated into CVD nanodiamonds : study of the growth process and the optical properties.
17:35-17:50	X. Xu	Single-photon emission at 800 nm from colloidal quantum dots on sapphire surface at room temperature
17:50-18:05	I. A. Khramtsov	Temporal Dynamics of Electrically Driven Single-Photon Sources Based on Color Centers in Diamond
18:05-18:20	S. Ditalia Tchernij	Novel single-photon-emitting defects in diamond
18:20-18:35	P. Traina	Towards standardization of single-photon sources measurements
18:35-18:50	G. S. Paraoanu	Experimental Quantum-Enhanced Magnetometry Using a Superconducting Circuit
Parallel Section XVI C (Aula Magna Rettorato) - Chairperson: Z. Hradil		
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	G. Ferrini	Probabilistic Fault-Tolerant Universal Quantum Computation and Sampling Problems in Continuous Variables

18:05-18:20	F. Giraldi	Regularizing the variations of the environmental energy and the information flow via special initial correlations and spectral gaps
18:20:18:35	M. Roncaglia	On the Conservation of Information in Quantum Physics
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: S. Takeuchi		
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: C. Marletto		
10:25-10:45	S. Takeuchi	Nanofiber integrated single light emitters for efficient single photon sources
10:45-11:05	M. Bondani	Tomography of Quantum-States with Photon-Number-Resolving Homodyne Detection
11:05-11:25	V. Vedral	Entanglement between living bacteria and quantized light
11:25-11:45	J. A. Bergou	Sequential measurements: optimally getting around the collapse postulate and the no-broadcasting theorem
11:45-12:05	M. Agio	Quantum nano-optics with diamond color centers and colloidal quantum dots
12:05-12:25	F. Daneshgar	Recent Progress in Superconducting Nanowire Single Photon Detectors for QKD Applications
lunch		
Session XIX (Cavallerizza) – Chairperson: A. Garuccio		
14:00-14:20	P. Zanardi	Quantifying the relative incompatibility of Quantum observables
14:20-14:40	E. Gouzien	Coherent optical frequency conversion for polarisation entangled qubits
14:40-15:00	M. Bellini	Delocalized photon addition for entangling macroscopic light states
15:00-15:20	F. Piacentini	Experimental realization of robust weak measurements
15:20-15:40	L. C. Kwek	Quantum Synchronization: From Squeezing to Other Applications
15:40-16:00	V. I. Man'ko	Quantum Suprematism and the Probability Distribution as an Alternative of the Wave Function and Density Matrix in Conventional Quantum Theory
Coffee break		
Parallel Section XX A (Cavallerizza) Chairperson: L. C. Kwek		
16:25-16:45	M. Mondin	System Parameter Optimization for Minimization of Sign Error Probability in Free Space Optical CV-QKD
16:45-17:05	G. L. Giorgi	Machine Learning Applied to Quantum Synchronization-Assisted Probing

17:05-17:25	A. Meda	Optimizing quantum enhanced imaging in realistic conditions
17:25-17:40	S. Sarkar	Self-testing of maximally entangled state of arbitrary local dimension
17:40-17:55	J. Shang	Convex optimization over classes of multiparticle entanglement
17:55-18:10	M. Fadel	Entanglement, Einstein-Podolski-Rosen steering and Bell correlations in Bose-Einstein condensates.
18:10-18.25	A. D'Errico	Topological quantum walks in the two-dimensional transverse momentum space of photons
Parallel Section XX B (Aula CLab) - Chairperson: M. Manko		
16:25-16:40	C. Marletto	On the locality of the Aharonov-Bohm phase
16:40-17:00	W. Bruzda	Excess of a Matrix and Bell Inequalities
17:00-17:20	J. Pedernales	On nanodiamonds for matter-wave interferometry
17:20-17:40	A. Avella	Quantum differential ghost imaging
17:40-17:55	M. Rossi	Continuous measurements for advanced quantum metrology
17:55-18:10	K. Thapliyal	Nonclassical features in off-resonant Raman process
Parallel Section XX C (Aula multifunzione) - Chairperson: A. Valencia		
16:30-16:50	M. F. Pusey	Contextuality without access to a tomographically complete set
16:50-17:10	N. Spagnolo	Validation of multiphoton interference via machine learning
17:10-17:25	S. Straupe	Reconfigurable Laser-Written Integrated Photonic Circuits for Linear Optical Quantum Computing
17:25-17:40	A. Naddeo	A quantum low-energy gravity model free from causality violation problems
17:40-17:55	G. Carcassi	The Fundamental Connections Between Classical Hamiltonian Mechanics, Quantum Mechanics and Information Entropy
17:55-18:10	M. Arnhem	Optimal estimation of parameters encoded in coherent states quadratures
18:10-18:25	A. Nomerotski	Spatial characterization of photonic polarization entanglement over large distances

Closing (Cavallerizza)	
18.30	Best poster award ceremony sponsored by Entropy (Chair: I. P. Degiovanni)
18:35-19:20	**Closing** (G.Brida) - **Beer party –**

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	N.Anand	Quantifying non-Markovianity: a quantum resource-theoretic approach
2	R.Angusiak	Scalable Bell inequalities for qubit graph states and robust self-testing
3	M. Arnhem	Optimal estimation of parameters encoded in coherent states quadratures
4	G. Atkinson	Fisher Information with Continuous Variable Quantum Resources
5	D. Bacco	In-field demonstration of a quantum key distribution system in the metropolitan Florence area
6	S.Bagchi	Analysis Of The Experiments Demonstrating Quantum Pigeonhole Paradox
7	B.I. Bantysh	Quantum process tomography with imperfect measurements
8	M. V. Bastrakova	Non-destructive measurement of superconducting qubit states by Josephson bifurcation oscillator
9	A. Benmachiche	Single quantum gates and Bell's states using the controlled adiabatic evolutions
10	E. Bernardi	High sensitivity magnetic measurements with Nitrogen Vacancy Centers in Diamond
11	C.Bonizzoni	Pulsed-Wave Transmission Spectroscopy of Spin Ensembles Through Planar Superconducting Microwave Resonators
12	N. Borshchevskaia	Separated Schmidt modes in angular spectrum of biphotons
13	D. Branford	Fundamental limits in detecting localisation effects
14	A.Byron	Generating GHZ states with squeezing and post-selection
15	A. C. Cardoso	Classical imaging with undetected light
17	G. Chesi	Quantifying nonclassicality and qualifying photodetectors through autocorrelation functions
18	L. Chiatti	A new version of quantum mechanics with definite

		macroscopic states
19	D.Cocco	Fluctuating Quantum Mechanics
20	S.Cornia	Hybrid Superconducting Microwave Resonator – Nanowire Quantum Dot Systems
21	D. Das	Facets of bipartite nonlocality sharing by multiple observers via sequential measurements
22	A. Facchini	Computational Complexity and the Nature of Quantum Mechanics
23	M.Fadel	Spatial entanglement patterns and Einstein-Podolsky-Rosen steering in a Bose-Einstein condensate
24	G. Frascella	Spatially multimode SU(1,1) interferometer
25	D.Gaspard	Solvable model of a quantum particle in a detector
26	D. Gatto	Distributed Quantum Metrology with Squeezed states
27	A. Gaysarov	Theoretical study of the optical-terahertz biphoton fields by means of the generalized Kirchhoff law
28	A. Geraldi	All-Optical Implementation of Collision Based Evolutions of Open Quantum Systems
29	F.Ghafari	Interfering trajectories in experimental quantum-enhanced stochastic simulation
30	B. Giacomelli	Realization of Popper's EPR-like Experiment with Mesoscopic Pseudo-thermal Light
31	É. Gouzien	Hybrid entanglement with time-bin coding
32	R. Grimaudo	Cooling of Many-Body Systems via Selective Interactions
33	A. Iwamoto	Theoretical study of temporal quantum interference using a quantum fluxon with an internal degree of freedom
34	I. U. Jeon	Measurement-device-independent verification of coherent channel extension
35	S. Kanjilal	Simultaneous Correlations in mutually unbiased bases as resource for Quantum-information processing tasks
36	H. Katayama	Quantum walks under the continuous weak measurement
37	T. Kiyohara	Serial-parallel conversion for a stream of single photons using heralding signals
38	V. I. Koroli	Quantum-statistical and squeezing properties of the quantized cavity field interacting with laser cooled and trapped three-level radiator
39	E. V. Kovlakov	Quantum state engineering with twisted photons via adaptive shaping of the pump beam
40	M. Lostaglio	Anomalous weak values and contextuality: robustness, tightness, and imaginary parts
41	R. Machulka	Evolution of coherence properties of intense twin beams
42	P. Malpani	On the phase precision parameter of nonclassical states
43	S.Marcantoni	Quantum Model for Impulsive Stimulated Raman Scattering
44	A. Messina	Coupling-assisted Landau-Majorana-Stuckelberg-Zener transitions in two-interacting-qubit systems

45	T. Mihaescu	Random Entanglement Witnesses for Gaussian States
46	M. Milajiguli	Adversarial vs cooperative quantum estimation
47	R. N. M. Nasir	Mutually Unbiased Unitary Bases
48	C. Oh	Optimal measurements for quantum fidelity and quantum Fisher information of Gaussian states
49	C. Okoth	Non-phase matched spontaneous parametric down conversion: generation of states with huge spatial entanglement
50	G. Ortolano	Toward Quantum Enhanced Schlieren Imaging of Refractive Object
51	S.Pradyumna	Technical details of the realisation of quantum enhanced correlation interferometry
53	V. Prakash	Tunable, Narrow Band Correlated Photons Interfaced with Atomic Systems
54	E. Rebufello	Quantum entanglement near open timelike curves: theory and experimental simulation
55	G.Reznik	Quantum Violation Of The Pigeonhole Principle
56	A. Riccardi	Squeezing metrology
56b	L. Ruppert	High-precision multiparameter estimation of mechanical force by quantum optomechanics
57	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.
58	T. Santiago-Cruz	Single-photon spectroscopy of non-phase matched spontaneous parametric down conversion
59	S. Sarkar	Self-testing of maximally entangled state of arbitrary local dimension
60	S. Sasmal	Certifying maximal amount of Genuine Randomness for any two-qubit entangled state
61	A.Scagliola	Correlation Plenoptic Microscopypan
62	G. Styliaris	Mixing of quantum states under Markovian dissipation and coherent control
63	K. Thapliyal	Quantum Zeno effect in a PT symmetric optical system
64	S. Virzì	Genetic Quantum Measurement: a new measurement paradigm in Quantum Mechanics
65	Ma Yue	Quantum tennis-racket effect
66	G. A. Alvarez	Attaining the ultimate precision bound for estimating parameters on the environment by a quantum sensor
67	S. Gallino	Weak-Measurement-based Local Realism Tests
68	H. Y. Yau	Emerged Quantum and Gravitational Fields of a Proper Time Oscillator