

Session overview

Technologies for Quantum Information Processing

High-Helicity Vortex Conversion in a Rubidium Vapor

Speaker: *Aurélien Chopinaud*

03.10.2017 10:30

Finite Quantum State Verification, Validation, and Imaging via Phase Space Methods

Speaker: *Russell P. Rundle*

03.10.2017 10:45

Temporal shaping of single photons enabled by entanglement

Speaker: *Valentin Averchenko*

03.10.2017 11:00

Strong photon-atom coupling with 4Pi microscopy

Speaker: *Yue-Sum Chin*

03.10.2017 11:15

Optimal verification of entangled states with local measurements

Speaker: *Sam Pallister*

03.10.2017 11:30

Realistic parameter regimes for a single sequential quantum repeater

Speaker: *Filip Rozpedek*

03.10.2017 11:45

Quantum Communication and Cryptography

Finite-resource teleportation stretching for continuous-variable systems

Speaker: *Riccardo Laurenza*

03.10.2017 13:00

Hybrid Photonic Loss Resilient Entanglement Swapping

Speaker: *Ryan Parker*

03.10.2017 13:15

Towards Accessible Metropolitan Quantum Secure Communication

Speaker: *Henry Semenenko*

03.10.2017 13:30

The Security of the Quantum MAC

Speaker: *Mansur Ziatdinov*

03.10.2017 13:45

Quantum-Limited Measurements of Optical Signals from a Geostationary Satellite

Speaker: *Kevin Günthner*

03.10.2017 14:00

Device Independent Conference Key Agreement

Speaker: *Jérémy Ribeiro*

03.10.2017 14:15

Quantum Foundations

Experimental observation of the interplay between quantum coherence and quantum correlations

Speaker: *Gerard Jiménez Machado*

03.10.2017 14:45

Witnessing irreducible dimension

Speaker: *Yu Cai*

03.10.2017 15:00

Approximate Majorization

Speaker: *Carlo Sparaciari*

03.10.2017 15:15

Certifying global randomness from partially entangled two-qubit states

Speaker: *Alexia Salavrakos*

03.10.2017 15:30

All entangled states can demonstrate non-classical teleportation
Speaker: *Ivan Supic*

03.10.2017 15:45

Extending Wheeler's delayed-choice experiment to Space
Speaker: *Costantino Agnesi*

03.10.2017 16:00

Experimental certification of millions of genuinely entangled atoms in a solid
Speaker: *Peter C. Strassmann*

03.10.2017 16:15

Poster Session - I

Covert quantum internet
Speaker: *Alex Wozniakowski*

03.10.2017 16:45

Entanglement detection on an NMR quantum-information processor using random local measurements
Speaker: *Amandeep Singh*

03.10.2017 16:45

Efficient experimental design of high-fidelity three-qubit quantum gates via genetic programming
Speaker: *Amit Devra*

03.10.2017 16:45

Complementarity of genuine multipartite Bell nonlocality
Speaker: *Anubhav Chaturvedi*

03.10.2017 16:45

Steady-state generation of maximal entanglement in any dimension via incoherent contact to thermal baths
Speaker: *Armin Tavakoli*

03.10.2017 16:45

Routing entanglement in a quantum network
Speaker: *Axel Dahlberg*

03.10.2017 16:45

Measuring higher-dimensional entanglement
Speaker: *Chandan Datta*

03.10.2017 16:45

Superradiance of Classical Fields via Projective Measurements
Speaker: *Daniel Bhatti*

03.10.2017 16:45

Controlling adsorbate distributions on a silica-coated gold surface measured by Rydberg spectroscopy
Speaker: *David Davtyan*

03.10.2017 16:45

Complementary Relations Between Quantum Steering Criteria
Speaker: *Debasis Mondal*

03.10.2017 16:45

Non-Markovian time evolution of an accelerated qubit
Speaker: *Dimitris Moustos*

03.10.2017 16:45

Multiplexed entanglement generation over quantum networks using multi-qubit nodes
Speaker: *Filip Rozpedek*

03.10.2017 16:45

Optimising practical entanglement distillation
Speaker: *Filip Rozpedek*

03.10.2017 16:45

A quantum particle in a cavity with alternating boundary conditions
Speaker: *Giancarlo Garnero*

03.10.2017 16:45

On-chip generation of frequency-entangled qudits
Speaker: *Giorgio Maltese*

03.10.2017 16:45

Randomness, Indistinguishability and the Environment as a Quantum Turing Machine

Speaker: *Hany Elemetry*

03.10.2017 16:45

Objectivity in non-Markovian spin-boson model

Speaker: *Jan Tuziemski*

03.10.2017 16:45

Quantum dot implementation of large error correction codes

Speaker: *Jonas Helsen*

03.10.2017 16:45

Scalability of quantum memory

Speaker: *Joris Kattemölle*

03.10.2017 16:45

Quantum Streaming Algorithms for Online Minimization Problems and Quantum Online Algorithms with Advice

Speaker: *Kamil Khadiev*

03.10.2017 16:45

Improving the dissipative production of a maximally entangled state via optimal control

Speaker: *Karl Horn*

03.10.2017 16:45

Interferometer alignment method based on the weak value concept

Speaker: *Katharina Senkalla*

03.10.2017 16:45

Generalized non-Markovian stochastic Schrödinger equation with application to entanglement detection

Speaker: *Kimmo Luoma*

03.10.2017 16:45

Nonclassicality in optical systems

Speaker: *Kishore Thapliyal*

03.10.2017 16:45

Communication complexity for mixed protocols

Speaker: *Maharshi Ray*

03.10.2017 16:45

Quantum batteries

Speaker: *Mariia Gumberidze*

03.10.2017 16:45

Trading qubit resources for quantum simulation of electronic systems

Speaker: *Mark Steudtner*

03.10.2017 16:45

Measuring orbital angular momentum of light by using a trapped atom

Speaker: *Naeimeh Mohseni*

03.10.2017 16:45

High magnetic field gradient tips for single spin resonance imaging

Speaker: *Philipp Scheiger*

03.10.2017 16:45

Photon reflection by a quantum mirror: A wave-function approach

Speaker: *Raul Corrêa*

03.10.2017 16:45

Quantum simulators for open quantum systems using quantum Zeno dynamics

Speaker: *Sabrina Patsch*

03.10.2017 16:45

Mutual Uncertainty, Conditional Uncertainty and Strong Sub-Additivity

Speaker: *Sheikh Sazim*

03.10.2017 16:45

Semiclassical Laser Cooling Near the Focal Point of a Parabolic Mirror

Speaker: *Thorsten Haase*

03.10.2017 16:45

Robust self-testing of (almost) all pure two-qubit states

Speaker: *Tim Coopmans*

03.10.2017 16:45

Entanglement and (in)distinguishability

Speaker: *Ugo Marzolino*

03.10.2017 16:45

Survival of time-evolved quantum correlations depending on whether quenching is across a critical point in an XY spin chain

Speaker: *Utkarsh Mishra*

03.10.2017 16:45

Many-box locality

Speaker: *Yu Cai*

03.10.2017 16:45

Quantum Simulation and Computation

Realization of Shor's algorithm at Room

Temperature

Speaker: *Niklas Johansson*

04.10.2017 10:30

Towards quantum simulation with circular Rydberg atoms

Speaker: *Brice Ravon*

04.10.2017 10:45

Quantum mechanics and the efficiency of simulating classical complex systems

Speaker: *Carlo Di Franco*

04.10.2017 11:00

Flow Ambiguity: A Path Towards Classically Driven Blind Quantum Computation

Speaker: *Atul Mantri*

04.10.2017 11:15

Fractal Properties of Magic State

Distillation

Speaker: *Patrick Rall*

04.10.2017 11:30

On the implausibility of classical client blind quantum computing

Speaker: *Alexandru Cojocaru*

04.10.2017 11:45

Quantum Correlations and Networks

Remote polarization-entanglement generation by local dephasing and frequency up-conversion

Speaker: *Sina Hamedani Raja*

04.10.2017 13:00

Entanglement scaling at a first order phase transition

Speaker: *Abel Yuste*

04.10.2017 13:15

Convex optimization over classes of multiparticle entanglement

Speaker: *Jiangwei Shang*

04.10.2017 13:30

Entanglement and quantum combinatorial designs

Speaker: *Zahra Raissi*

04.10.2017 13:45

Efficient Device-independent Entanglement Detection for Multipartite Systems

Speaker: *Flavio Baccari*

04.10.2017 14:00

Certification of quantum network functionality based on multi-round teleportation

Speaker: *Victoria Lipinska*

04.10.2017 14:15

Poster Session - II

Interference of single photons on a system of coupled waveguides

Speaker: *Ali Angulo*

04.10.2017 16:30

Simulating Markov Transition Probabilities in a Quantum Environment

Speaker: *Carla Silva*

04.10.2017	16:30	Optimizing Quantum Walk Search on a Reduced Uniform Complete Multi-Partite Graph Speaker: <i>Chen-Fu Chiang</i>	04.10.2017	16:30	Multiqubit State Tomography with Finite Data Speaker: <i>Lukas Knips</i>
04.10.2017	16:30	Multipartite entanglement transformations with local operations and finite rounds of classical communication Speaker: <i>David Sauerwein</i>	04.10.2017	16:30	Generalized Probabilistic Description of Noninteracting Identical Particles Speaker: <i>Marcin Karczewski</i>
04.10.2017	16:30	Bell Inequalities in Continuous Variable Systems for General 4-mode Gaussian States Speaker: <i>Gaurav Saxena</i>	04.10.2017	16:30	Simulating boson sampling in free space Speaker: <i>Marc-Oliver Pleinert</i>
04.10.2017	16:30	Quantum Sensor Networks with NV centers Speaker: <i>Helmut Frasch</i>	04.10.2017	16:30	SLOCC hierarchy for generic states in $2 \times m \times n$ level systems Speaker: <i>Martin Hebenstreit</i>
04.10.2017	16:30	Entanglement in quantum spin networks with defects Speaker: <i>Himadri Dhar</i>	04.10.2017	16:30	Wide Field Imaging of Atomic Spins using Nitrogen-Vacancy Centers in Diamond Speaker: <i>Marwa Garsi</i>
04.10.2017	16:30	Two-photon interference of vapor-delayed single quantum-dot photons Speaker: <i>Hüseyin Vural</i>	04.10.2017	16:30	Games and Monogamy in the relativistically causal correlations Speaker: <i>Michał Kamoń</i>
04.10.2017	16:30	Commercializing continuous-variable quantum key distribution Speaker: <i>Imran Khan</i>	04.10.2017	16:30	quantum discord between two distant Bose-Einstein condensates with Bell-like detection Speaker: <i>Mohammad Eghbali-Arani</i>
04.10.2017	16:30	Estimation of CHSH Inequality for Unknown Quantum State via C-SPSA Speaker: <i>Jean Cortés-Vega</i>	04.10.2017	16:30	Cryogenic Fabry-Perot cavities for ultrastable lasers Speaker: <i>Nikita Zhadnov</i>
04.10.2017	16:30	New entropic functions for qubit and Gaussian states Speaker: <i>Julio Lopez</i>	04.10.2017	16:30	Quantum Algorithm for Perfect Matching Problem Speaker: <i>Nikolajs Nahimovs</i>

Role of cross-talk in multimode continuous-variable quantum communication

Speaker: *Olena Kovalenko*

04.10.2017 16:30

Private key against side channel attacks

Speaker: *Omer Sakarya*

04.10.2017 16:30

Generalised cluster states of mechanical oscillators for universal quantum computation

Speaker: *Oussama Houhou*

04.10.2017 16:30

Reduction of many-body terms for quantum computations with fermions

Speaker: *Panagiotis Barkoutsos*

04.10.2017 16:30

Security analysis of thermal and continuous-variable measurement-device-independent quantum key distribution incorporating finite size effects

Speaker: *Panagiotis Papanastasiou*

04.10.2017 16:30

Transient Response of Bistable Systems

Speaker: *Paul Brookes*

04.10.2017 16:30

Taming finite statistics for device-independent quantum information

Speaker: *Pei-Sheng Lin*

04.10.2017 16:30

Robust and efficient control of spins in a complex (biological) environment

Speaker: *Philipp Konzelmann*

04.10.2017 16:30

Tripled frequency photon generation in the focus of a deep parabolic mirror in argon gas

Speaker: *Rojiar Penjweini*

04.10.2017 16:30

Selection of multipartite spin states in a nuclear bath

Speaker: *Stefan Jesenski*

04.10.2017 16:30

Nanoscale thermometry and magnetometry for a new generation of hard disk recording heads

Speaker: *Sven Bodenstedt*

04.10.2017 16:30

Negatively charged state on phosphorus atom in the silicon quantum computer architecture

Speaker: *Tatiana Pavlova*

04.10.2017 16:30

The problem of quantum information's transmission through a field

Speaker: *Theodora Kolioni*

04.10.2017 16:30

Simulation of non-Pauli channels

Speaker: *Thomas Cope*

04.10.2017 16:30

Quantum correlations in an optomechanical cavity with a periodic modulation

Speaker: *Vahid Ameri*

04.10.2017 16:30

Optical trapping of nano-particles with a deep parabolic mirror

Speaker: *Vsevolod Salakhutdinov*

04.10.2017 16:30

Improved quantum advantage with shallow circuits via non-local games

Speaker: *Zachary Webb*

04.10.2017 16:30

Artificial subsystems in multilevel single-part systems and new information-entropic inequalities for Clebsch-Gordan coefficients

Speaker: *Zhanat Seilov*

04.10.2017 16:30

Quantum Thermodynamics and Open Systems

Perfect Sampling for Quantum Gibbs States

Speaker: *Daniel Stilck França*

06.10.2017 13:00

Energetic instability of passive states in thermodynamics

Speaker: *Carlo Sparaciari*

06.10.2017 13:15

Phase Transition in Chaotic Dynamics of Purification Protocol

Speaker: *Martin Malachov*

06.10.2017 13:30

Beating the Limits in Qubit Reset with Initial Correlations

Speaker: *Daniel Basilewitsch*

06.10.2017 13:45

Autonomous quantum clocks: how thermodynamics limits our ability to measure time

Speaker: *Paul Erker*

06.10.2017 14:00

State transfer in a one-dimensional strongly-interacting gas

Speaker: *Artem Volosniev*

06.10.2017 14:15

Quantum Metrology & Condensed Matter and

Precision arrangement of phosphorus atoms on Si(100) through chlorine mask

Speaker: *Tatiana Pavlova*

06.10.2017 14:45

Ultimate limits for quantum magnetometry via time-continuous measurements

Speaker: *Francesco Albarelli*

06.10.2017 15:00

High resolution sensing of high-frequency fields with continuous dynamical decoupling

Speaker: *Nati Aharon*

06.10.2017 15:15

Nonlocal bunching of composite bosons

Speaker: *Zakarya Lasmar*

06.10.2017 15:30

Simultaneous estimation of conjugate parameters: Reaching the Cramér-Rao bound with coherent states

Speaker: *Matthieu Arnhem*

06.10.2017 15:45