

Programme GNGQC 2023

Monday Dec 18th	Tuesday dec. 19th	Wednesday Dec. 20th
08.30 - 09.00	<i>Light breakfast</i>	<i>Light breakfast</i>
09.00 - 09.30	Tutorial (Mehul Malik)	Stefano Pironio
09.30 - 10.00 <i>Registration + Welcome</i>		Tobias Gehring
10.00 - 10.30 Tutorial (Antonio Acín)	Warit Asavanant	Vladyslav Usenko
10.30 - 11.00	<i>Break</i>	<i>Break</i>
11.00 - 11.30 <i>Break</i>	Virginia D'Auria	Michael Stefszky
11.30 - 12.00 Qiang Zhang	Nicolas Sangouard	Marcos Curty
12.00 - 12.30 Gláucia Murta	Ofek Bengyat	Julien Laurat
12.30 - 13.30 <i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
13.30 - 13.45 Klára Baksová	Will McCutcheon	<i>End of GNGQC 2023</i>
13.45 - 14.00 Ambroise Boyer	Eva Maria Gonzalez Ruiz	
14.00 - 14.30 Armin Tavakoli	Eleni Diamanti	
14.30 - 15.00 Radim Filip	Florian Fertig	
15.30 - 16.00 <i>Break</i>	<i>Break</i>	
16.00 - 16.30 Peter Brown	<i>Poster session</i>	
16.30 - 17.00 David Nadlinger		
17.00 - 17.30 <i>QSNP consortium meeting /</i>		
17.30 - 18.00 <i>Free time</i>		
20.30 - <i>Conference Dinner @ Madklubben Vesterbro</i>		

Tutorials

Antonio Acín [ICFO](#)

Tutorial on device independence

Mehul Malik [Heriot-Watt University](#)

Tutorial on high-dimensional entanglement

Talks

Warit Asavanant [University of Tokyo](#)

Broadband quantum entanglement in time domain for large-scale quantum computation

Virginia D'Auria [Institut de Physique de Nice](#)

Multipartite entanglement in frequency combs out of microresonators

Ofek Bengyat [IQOQI Vienna](#)

Superposition of spacetimes in the laboratory

Peter Brown [Telecom Paris](#)

Tighter finite-size security proofs for QKD

Marcos Curty [Vigo University](#)

Approaches to achieve implementation security in quantum key distribution and their challenges

Eleni Diamanti [CNRS, Sorbonne University](#)

TBA

Florian Fertig [LMU Munich](#)

Entanglement distribution using single atoms

Radim Filip [Palacky University](#)

Rise of qubit coherences

Tobias Gehring [DTU Physics](#)

TBA

Julien Laurat [Université P. et M. Curie](#)

TBA

Cosmo Lupo [Politecnico di Bari](#)

Random numbers from quantum fluctuations, from Gaussians and non-Gaussian states

Gláucia Murta [Heinrich-Heine-Universität Düsseldorf](#)

Device-independent entanglement certification with dishonest parties

David Nadlinger [University of Oxford](#)

High-fidelity, high-rate remote entanglement between trapped-ion qubits

Stefano Pironio [Université Libre de Bruxelles](#)

Long range quantum correlations in routed Bell experiments and applications to DIQKD

Nicolas Sangouard [CEA / Université Paris-Saclay](#)

Paving the way for more practical realizations of device-Independent quantum key distribution

Michael Stefszky [Paderborn University](#)

Gaussian Boson sampling and engineering squeezed states

Armin Tavakoli [Lund University](#)

Entanglement and steering with imprecise measurements

Vladyslav Usenko [Palacky University](#)

Gaussian versus non-Gaussian states in secure quantum communication

Qiang Zhang [University of Science and Technology of China](#)

Recent experimental progress in quantum key distribution

Short Talks

Klára Baksová [TU Wien](#)

Activation of genuine multipartite entanglement in continuous-variable systems

Ambroise Boyer [Laboratoire Kastler Brossel](#)

Hybrid Bell-state measurement combining photon detection and Homodyne conditioning

Will McCutcheon [BBQLabs, Heriot-Watt University](#)

Compressive Tomography of Unstructured High-Dimensional Photonic Entanglement

Eva Maria Gonzalez Ruiz [CEA Paris-Saclay](#)

Device-Independent Quantum Key Distribution with realistic single-photon source implementations

Posters

Evelyn A. Ortega [ICFO](#)

Experimental multiplexed entanglement distribution through a Multicore Fiber

Joan Agustí Bruzón [Technical University of Munich](#)

Non-Markovian thermal reservoirs as a resource for long-distance entanglement distribution

Matthieu Arnhem [Palacky University Olomouc](#)

Interferometric measurement of the quadrature coherence scale using two replicas of a quantum optical state

Marco Avesani [University of Padova](#)

Source-Device-Independent Quantum Random Number Generators

Lorenzo Coccia [University of Padova](#)

Geometry of sequential quantum correlations and robust randomness certification

Álvaro Cuevas [ICFO](#)

Versatile bulk entangled photons source and tunable fiber coupling

Jakub Czartowski

Thermal recall: Memory-assisted Markovian thermal processes

Alexssandre De Oliveira Junior [Technical University of Denmark](#)

Quantum catalysis in cavity QED

Jorge Fuenzalida [University of Darmstadt](#)

Quantum state tomography of undetected photons

Mariia Gumberidze [Palacky University Olomouc](#)

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Adnan Hajomer [Technical University of Denmark](#)

Continuous-variable quantum key distribution at 10 GBaud using an integrated photonic-electronic receiver

Ryuhoh Ide [The University of Tokyo](#)

Generation of high-quality two-mode entanglement toward switch-free optical quantum computing

Akito Kawasaki [The University of Tokyo](#)

Generation and measurement of broadband optical entangled states

Olena Kovalenko [Palacky University Olomouc](#)

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Lukas Lachman [Laboratoire Kastler Brossel](#)

Nonclassical and quantum non-Gaussian coherence

Mohammad Mehboudi [TU Wien](#)

Joint measurability in continuous variable systems under pure loss

Darren Moore [Palacký University](#)

Nonlinear Squeezing in Classical and Quantum Mechanics

Jaime Moreno [Tampere University](#)

Characterizing two-photon frequency correlations via polarization measurements

Monika Mothsara [Heinrich Heine University](#)
Better sensing with variable-range interactions

Valeriy Novikov [University of Copenhagen](#)
Entangled states of light and atomic spin oscillators for quantum noise reduction in gravitational wave detectors

Akash Nag Oruganti [Palacky university](#)
Multi user CV-QKD

Antoine Petitjean [Université Côte d'Azur](#)
Data acquisition for state engineering in multimode context

Jan Provaznik [Palacky University Olomouc](#)
Adapting coherent-state superpositions in noisy channels

Phila Rembold [TU Wien](#)
MUB Construction for Photon-Electron Entanglement Estimation

Giovanni Scala
Robust self-testing of Bell inequalities tilted for maximal loophole-free nonlocality

Hannah Seabrook [University of Bristol](#)
Noiseless quantum key distribution across unknown unitary channels

Rajiuddin Sk [IISER Kolkata](#)
Information capacity analysis of fully correlated channel

Olga Solodovnikova [Technical University of Denmark](#)
Simulation and preparation of non-Gaussian states in the optical regime

Rajshree Swarnkar [Friedrich Alexander Universität Erlangen Nürnberg](#)
Enhancing Axial Resolution in mid-infrared frequency-domain optical coherence tomography with undetected photons through Dual Pump Wavelength Spectral Broadening

Kristian Toccacelo [Technical University of Denmark](#)
On the possibility of measuring quantum gravity with gravitational Rabi oscillations

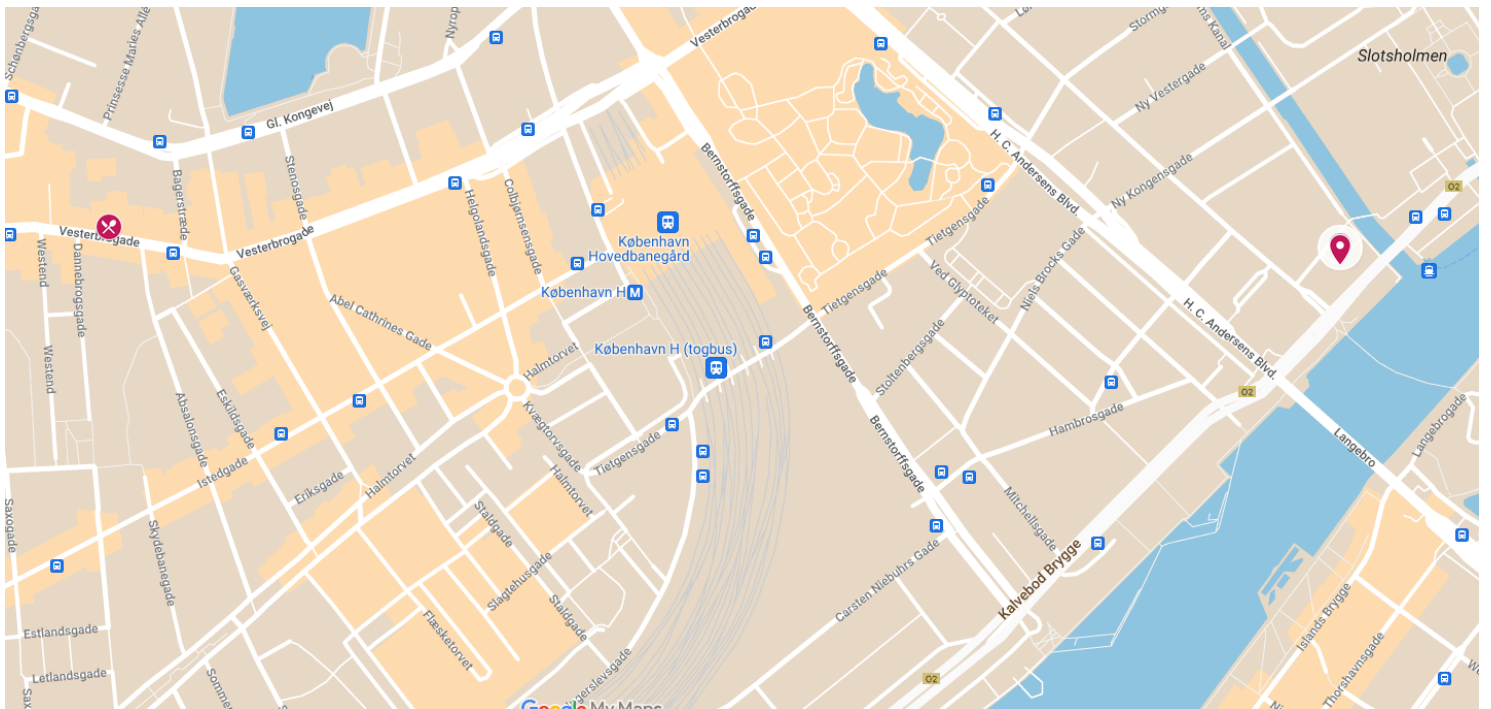
Davide Tomasella [Technical University of Denmark](#)
Room-temperature optomechanical strong coupling with a macroscopic quartz crystal

Alessandro Trenti [Austrian Institute of Technology](#)
A guided-wave set-up for squeezed light generation and detection

Adam Vallés [ICFO](#)
Stimulated teleportation of high-dimensional spatially entangled states

Abhinav Verma [Technical University of Denmark](#)
TBA

Workshop and dinner venues



Workshop venue

Danish Architecture Center in BLOX
Bryghuspladsen 10
DK-1473 Copenhagen K
Denmark



Dinner venue

Madklubben Vesterbro
Vesterbrogade 62
DK-1620 Copenhagen V
Denmark