

## Monday, 17 July

<b>9:00-9:15</b>	<b>Welcoming / Registration</b>	
<i>Chair: Achim Kempf</i>		
9:15-10:00	Caslav Bruckner (U. Vienna)	Review: Quantum Reference Frames
10:00-10:30	Magdalena Zych (U. Stockholm)	Relativity of quantum superpositions in the context of superpositions of gravitational sources.
<b>10:30-11:00</b>	<b>Coffee</b>	
<i>Chair: Achim Kempf</i>		
11:00-11:20	Joshua Foo (U. Queensland)	Quantum superpositions of Miknowski spacetime in theory and in the lab
11:20-11:40	Jose de Ramon Rivera (U. Burgos)	Field-particle duality and time-energy uncertainty in measurements of quantum fields
11:40-12:00	Alessandro Pesci (INFN Bologna)	Classical vs quantum emission of gravitational radiation in the recombination of a delocalized particle
12:00-12:30	Eduardo Martin-Martinez (U. Waterloo)	Classical vs Quantum theories: when do quantum effects matter in gravity and quantum information?
<b>12:30-14:00</b>	<b>Lunch</b>	
<i>Chair: Dimitris Moustos</i>		
14:00-14:45	Jorma Louko (U. Nottingham)	Review: Black Hole Information
14:45-15:05	Fabio Scardigli (Milan Polytechnic)	Bekenstein bound and uncertainty relations
15:05-15:25	Sebastian Murk (Okinawa IST)	Nomen non est omen: why it is too soon to identify ultra-compact objects as black holes
15:25-15:45	Joseph Schindler (U. Autonoma Barcelona)	Unitarity and the information problem in an explicit model of black hole evaporation
15:45-16:05	Kfir Dolev (U. Stanford)	Holography as a resource for non-local quantum computation
<b>16:05-16:40</b>	<b>Coffee</b>	
<i>Chair: Dimitris Moustos</i>		
16:40-17:00	Jinzhao Wang (U. Stanford)	Some information-theoretic fine prints on the Bekenstein bound
17:00-17:30	Jonathan Oppenheim (U. College London)	A covariant theory of quantum fields back-reacting on classical space-time.
17:30-17:50	Flavio del Santo (U. Geneva)	The relativity of indeterminacy
17:50-18:10	Akira Matsumura (U. Kyushu)	Reduced dynamics with Poincare symmetry in an open quantum system

## Tuesday, 18 July

*Chair: Shih-Yuin Lin*

9:15-10:00	Marios Christodoulou (U. Vienna)	Review: Quantum Gravity in the Lab
10:00-10:30	Ohkyung Kwon (U. Chicago)	Foundational Tests of Quantum Gravity with Single Photon Detection Interferometry
<b>10:30-11:00</b>	<b>Coffee</b>	
<i>Chair: Shih-Yuin Lin</i>		
11:00-11:20	Vasileios Fragkos (U. Stockholm)	On the inference of quantisation from gravity induced entanglement
11:20-11:40	Michalis Lagouvardos (U. Patras)	Gravitational Decoherence
11:40-12:00	Hudson Loughlin (MIT)	A 40km Fiber Interferometer to Probe the Interaction of Quantum Light and Gravity
12:00-12.30	Alessio Belenchia (U. Eberhard-Karls, Tübingen)	Testing the foundations of quantum physics with large particles in space
<b>12:30-14:00</b>	<b>Lunch</b>	
<i>Chair: Fabio Costa</i>		
14:00-14:30	Uwe Fischer (Seoul National U.)	Impact of trans-Planckian excitations on black-hole radiation in dipolar condensates
14:30-15:00	Chryssomalis Chryssomalakos (UNAM)	Toponomic Quantum Computation
15:00-15:20	Ryszard Kostecki (U. Gdansk)	Quantum Schwarzschild space-time
15:20-15:40	Koji Yamaguchi (U. Waterloo)	Improving the efficiency of transmitting quantum information by utilizing correlated quantum fluctuations
15:40-16:00	Yasaman Yazdi (Imperial College)	Entanglement Entropy from Spacetime Two-Point Correlation Functions
<b>16:00-16:30</b>	<b>Coffee</b>	
<i>Chair: Fabio Costa</i>		
16:30-17:00	Achim Kempf (U. Waterloo)	Emergence of Spacetime from Fluctuations
17:00-17:20	Marko Vojinovic (IOP Belgrade)	Operational verification of the existence of spacetime
17:20-18:00	Round table discussion: <i>Quantum experiments and the foundations of gravity</i>	
18:15-20:30	Poster Session / Buffet	

## Wednesday, 19 July

*Chair: Christina Giamartzi*

9:15-10:00	Bei-Lok Hu (U. Maryland)	Review: Relativistic Quantum Information from Field Theory
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10:00-10:30	Daniel Terno (U. Macquarie)	What can the information loss problem tell us about black holes?
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**10:30-11:00**      **Coffee**

*Chair: Christina Giamartzi*

11:00-11:20	Tales Rick Perche (U. Waterloo)	Particle detectors from quantum fields
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11:20-11:40	Nicholas Funai (Royal Melbourne Institute)	Covariant bandlimitation and sampling for QFT
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11:40-12:00	Richard Lopp (U. Ulm)	Dimensional Reduction in Quantum Optics
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12:00-12:30	Shih-Yuin Lin (National Changhua U.)	Quantum coherence of relativistic wavepackets moving in electromagnetic vacuum
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**12:30-14:00**      **Lunch**

*Chair: Robert Oeckl*

14:00-14:30	Robert Mann (U. Waterloo)	Quantum Superpositions of Black Holes
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14:30-14:50	David Kubiznak (Charles U.)	Quantum imprints of gravitational shockwaves
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14:50-15:10	Daniele Colosi (UNAM)	Excitation of an Unruh-DeWitt detector by quantum evanescent waves
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15:10-15:30	Mohammed Alkhateeb (Cergy Paris U.)	Space-time resolved quantum field approach to Klein tunneling dynamics of fermions and bosons
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15:30-15:50	Hal Haggard (Bard College)	Quantum Tetrahedra and Relativistic Information
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**15:50-16:20**      **Coffee**

*Chair: Robert Oeckl*

16:20-16:40	Alessio Lapponi (SSM Napoli)	Relativistic quantum communication between harmonic oscillator detectors
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16:40-17:00	Carolyn Wood (U. Queensland)	Quantum particle detector models
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17:00-17:20	Bruno Torres (U. Waterloo)	A general framework for Gaussian complexity geometry
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17:20-17:40	Jose Polo-Gomez (U. Waterloo)	Unruh effect through machine learning
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17:40-18:30	Round table discussion: <i>Foundations of RQI</i>	
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## Thursday, 20 July

*Chair: Albert Roura*

9:15-10:00	Esteban Castro Ruiz (U. Paris-Saclay)	Review: Quantum Causal Orders
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10:00-10:30	Christina Giamartzi (U. Technology Sydney)	Full characterisation of quantum non-Markovian processes
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**10:30-11:00**      **Coffee**

*Chair: Albert Roura*

11:00-11:20	Natalia Salome-Moller (Slovak Academy of Sciences)	The quantum switch in flat, curved and quantum spacetimes
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11:20-11:40	Veronika Baumann (U. Vienna)	Different perspectives in (non)-causal quantum processes
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11:40-12:00	Nicola Pinzani (U. Brussels)	The Topology and Geometry of Causality
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12:00-12:30	Venkatesh Vilasini (ETH Zurich)	Quantum information-theoretic causal structures and their compatibility with spatio-temporal causality
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**12:30-14:00**      **Lunch**

*Chair: Magdalena Zych*

14:00-14:30	Robert Oeckl (UNAM)	Towards a local and compositional notion of measurement in Quantum Field Theory
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14:30-14:50	Demosthenes Ellinas (Technical U. of Crete)	Superposition of topologies via indefinitely ordered composition of quantum channels
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14:50-15:10	Anne-Catherine de la Hamette (U. Vienna)	Quantum diffeomorphisms cannot make indefinite causal order definite
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15:10-15:30	Adamantia Zampeli (UNAM)	Composition of observables in the general boundary quantum field theory
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15:50-16:10	Claudio Paganini (U. Regensburg)	The Causal Compatibility Conjecture and its implication on time travel
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**16:10-16:40**      **Coffee**

*Chair: Magdalena Zych*

16:40-17:10	Fabio Costa (NORDITA, Stockholm)	A de Finetti representation for quantum causal structures
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17:10-17:30	Eleftherios Tselentis (U. Vienna)	Admissible Causal Structures and Correlations
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17:30-17:50	Fil Simovic (U. Macquarie)	Black Hole Thermodynamics: Lessons in Unitariness, Information, and Quantum Gravity
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17:50-18:30      ISRQI General Assembly

20:30-      CONFERENCE DINNER

## Friday, 21 July

*Chair: Daniel Terno*

9:15-10:00	Albert Roura (DLR Ulm)	Review: Long-baseline quantum optics experiments in space
10:00-10:30	Daniel Braun (U. Eberhard-Karls, Tübingen)	Quantum metrology and the measurement of small gravitational effects
<b>10:30-11:00</b>	<b>Coffee</b>	
<i>Chair: Daniel Terno</i>		
11:00-11:30	Maxime Jacquet (Sorbonne)	Black hole experiments with polaritons
11:30-11:50	Andrey Moskaleiko (KAIST)	Finite-time Unruh effect in a nonlinear-optical system: diamond temperature and transition to the Unruh-temperature regime
11:50-12:10	Cisco Gooding (U. Nottingham)	Vacuum Entanglement Probes for Ultra-cold Atom Systems
12:10-12:30	Cameron Bunney (U. Nottingham)	Circular motion analogue Unruh effect in a 2+1 thermal bath
12:30-12:50	Kazuhiro Yamamoto (U. Kyushu)	Two-mode theory of suspended mirror coupled cavity light: Wiener filter analysis
12:50-13:30	Discussion: <i>The future of RQI</i>	