

# Quantum Corona

Quantum Correlations of Nature  
Siegen, 26.9.2022 – 29.9.2022

Conference venue: [Conference center of the University of Siegen, Obergraben 25, 57072 Siegen](#)

## Monday 26.9.2022

9:00 – 9:50	<b>Adán Cabello</b> SI-C sets: irreducible magic, lower detection efficiency, optimal Bell inequalities, uniqueness, and DI certification of ideal measurements
9:50 – 10:15	<b>Gautam Sharma</b> One-sided device-independent self-testing of a large class of pure states
10:15 – 10:45	Coffee break
10:45 – 11:35	<b>Mirjam Weilenmann</b> Correlations from joint measurements in boxworld and applications to information processing
11:35 – 12:00	<b>Marc-Olivier Renou</b> Any physical theory of Nature must be boundlessly multipartite nonlocal
12:00 – 12:25	<b>Kiara Hansenne</b> Uncertainty relations from graph theory
12:25 – 14:00	Lunch break
14:00 – 14:25	<b>Mariami Gachechiladze</b> Bounding the set of quantum correlations using information causality
14:25 – 14:50	<b>Tein Van Der Lugt</b> Certifying indefinite causal order using Bell's theorem
14:50 – 15:15	<b>Satoya Imai</b> Work fluctuations and entanglement in quantum batteries
15:15 – 15:45	Coffee break
15:45 – 16:35	<b>Paolo Perinotti</b> Causal influence vs. signaling: when do systems affect each other?
16:35 – 17:00	<b>Lucas Tendick</b> Distance-based resource quantification for sets of quantum measurements
19:00	Conference dinner at <a href="#">Wirtshaus Schloss Stüberl</a>

## Tuesday 27.9.2022

9:00 – 9:50	<b>Felix Huber</b> Trace polynomials and entanglement
9:50 – 10:15	<b>Ties Ohst</b> Nearly optimal separability certification of quantum states
10:15 – 10:45	Coffee break
10:45 – 11:35	<b>Julio de Vicente</b> Genuine multipartite entanglement and nonlocality in pair-entangled network states
11:35 – 12:00	<b>Owidiusz Makuta</b> No graph states can be prepared in quantum networks with bipartite sources
12:00 – 12:25	<b>Lisa Weinbrenner</b> Average waiting times for entanglement links in multiplexed quantum networks
12:25 – 14:00	Lunch break
14:00 – 14:25	<b>Szilárd Szalay</b> Permutation invariant multipartite entanglement and correlations
14:25 – 14:50	<b>Sophia Denker</b> Constructing entanglement witnesses based on the Schmidt decomposition of operators
14:50 – 15:15	<b>Shuheng Liu</b> Bounding entanglement dimensionality from the covariance matrix
15:15 – 15:45	Coffee break
15:45 – 16:35	<b>Alexander Streltsov</b> Entanglement catalysis for quantum states and noisy channels
16:35 – 17:00	<b>Jan Lennart Bönsel</b> Spin squeezing inequalities meet randomized measurements

## Wednesday 28.9.2022

9:00 – 9:50	<b>Paweł Horodecki</b> Quantum correlations from postquantum perspective
9:50 – 10:15	<b>Carlos de Gois</b> Complete hierarchy for high-dimensional steering certification
10:15 – 10:40	<b>Thomas Cope</b> t.b.a.
10:40 – 11:10	Coffee break
11:10 – 12:00	<b>Jan-Åke Larsson</b> Quantum computation and the additional degrees of freedom in a physical system
12:00 – 12:25	<b>Mei Yu</b> Entanglement preservation in open quantum systems
12:25 – 12:50	<b>Leonardo Oleynik</b> An ontological approach to (non)locality
12:50 – 14:00	Lunch break
afternoon	Hike / Art museum tour

## Thursday 29.9.2023

Discussions at the [Emmy-Noether-Campus](#).