

QED⁴

Fourth workshop on Quantum entanglement and its detection

Siegen, 23/09/2013-26/09/2013



Monday, 23.09.2013:

9:30	Opening
9:45	M. Ziman: Entanglement-annihilating channels
10:30	Z. Zimboras: Higher-order symmetries in Entanglement, Design and Control Theory
11:00	Coffee
11:30	G. Toth: Quantum Fisher information as the convex roof of the variance and its relation to multipartite entanglement
12:00	C. Budroni: Bounding temporal quantum correlations
12:30	Lunch Break
14:00	M. Cramer: Spatial entanglement of bosons in optical lattices
14:45	T. Moroder: Pitfalls in current state tomography schemes
15:15	Coffee
15:45	C. Schwemmer: Correlations and Entanglement
16:30	M. Hofmann: Multiparticle negativity - a computable entanglement monotone for mixed states
19:30	Conference Dinner, Gasthaus "Laternchen", sponsored by J. Phys. A

Tuesday, 24.09.2013:

9:30	R. Demkowicz-Dobrzanski: Gravitational wave detectors, atomic clocks - a naive theorist approach
10:15	I. Appellaniz: Accuracy bounds for gradient metrology
10:45	Coffee
11:15	O. Gittsovich: Entanglement detection in the context of quantum communication
12:00	I. Urizar-Lanz: Accuracy of gradient magnetometry with multipartite singlet states
12:30	Lunch Break
14:00	J. Siewert: Negativity as a counter of entangled dimensions
14:45	M. Epping: Dimension witnessing Bell inequalities
15:15	N. Killoran: Testing Quantum Devices
15:45	Coffee
16:15	L. Buchholz: Quantitative entanglement properties of GHZ symmetric states
16:45	C. Eltschka: Genuine three-qubit entanglement from coupling to a heat bath
17:15	G. Vitagliano: SU(d) squeezing and entanglement in systems of d-level particles

Wednesday, 25.09.2013:

9:30	M. Huber: TBA
10:15	F. E.S. Steinhoff: Bound entanglement in continuous variables
10:45	Coffee
11:15	R. Augusiak: Detecting nonlocality in multipartite quantum states with two-body correlators.
12:00	S. Wölk: Detecting entanglement with the Cauchy-Schwarz inequality
12:30	Lunch Break

Invited speakers:

Remigiusz Augusiak (Barcelona)

Marcus Cramer (Ulm)

Rafal Demkowicz-Dobrzanski (Warsaw)

Oleg Gittsovich (Waterloo/Innsbruck)

Marcus Huber (Barcelona)

Christian Schwemmer (München)

Jens Siewert (Bilbao)

Mário Ziman (Bratislava)

Further Participants:

Geza Toth (Bilbao)
Zoltan Zimboras (Bilbao)
Iñigo Urizar Lanz (Bilbao)
Iagoba Apellaniz (Bilbao)
Giuseppe Vitagliano (Bilbao)
Christopher Eltschka (Regensburg)
Oliver Marty (Ulm)
Nathan Killoran (Ulm)
Jochen Szangolies (Düsseldorf)
Michael Epping (Düsseldorf)
Dagmar Bruß (Düsseldorf)
Sylvia Bratzik (Düsseldorf)
Hermann Kampermann (Düsseldorf)
Otfried Gühne (Siegen)
Matthias Kleinmann (Siegen)
Tobias Moroder (Siegen)
Sabine Wölk (Siegen)
Frank Steinhoff (Siegen)
Martin Hofmann (Siegen)
Costantino Budroni (Siegen)
Lars Erik Buchholz (Siegen)
Florian Köppen (Siegen)
Christina Ritz (Siegen)

Funding:

- Sponsorship of J. Phys. A: Math. Theor.
- CHIST-ERA network QUASAR
- Marie Curie CIG (293993/ENFOQI)
- ERC Starting Grant GEDENTQOPT



Journal of Physics A
Mathematical and Theoretical

