

QuCoLiMa

Topical Days on “Photo-detection of quantum correlations”

Date: September 29th-30th, 2022

Place: Campus Uni des Saarlandes, Gebäude C7.4 Seminarraum 1.17, 66123 Saarbrücken

Local organizer: Giovanna Morigi and Susanna Trampert, Physics Department, Saarland University

Advisory Board: QuCoLiMa Steering Committee (Giovanna Morigi, Kai Philipp Schmidt, Ferdinand Schmidt-Kaler, Joachim von Zanthier)

Thursday 29.09 13:30-19:00	General Meeting	Photo-detection of quantum correlations
13:30-13:40	Giovanna Morigi	Welcome
13:40-14:10	Jürgen Eschner	Postselection, Herald, and projective measurement with trapped ions
14:10-14:20	All	Discussion
14:20-14:50	Gregor Jung	"Correlation Spectroscopy in Chemistry"
14:50-15:00	All	Discussion
15:00-15:30	Coffee Break	
15:30-16:00	Joachim von Zanthier	Generation of arbitrary symmetric entangled states in remote qubits via projective measurements"
16:00-16:10	All	Discussion
16:10-16:40	Jamir Marino	An introduction to measurement-induced phase transitions
16:40-17:00	All	Discussion
17:00-17:30	Coffee Break	
17:00-19:00	Discussion	
19:30	Dinner (catering)	

Friday 30.09 9:00-10:30	Focus session	Photodetection and superradiance
9:00-9:25	Joachim von Zanthier	"Superradiant emission from remote entangled atoms"
9:25-9:45	All	Discussion

9:45-10:00	Aleksei Konovalov	superradiance by an atomic chain
10:00-10:30	All	Discussion
10:30-11:00	Coffee Break	
Friday 30.09 11:00-12:30	Focus session	Measurement induced phase transitions
11:00-11:30	Jamir Marino	Coherence requirements for quantum communication from hybrid circuit dynamics
11:30-11:45	All	Discussion
11:45-12:00	Raphael Menu	
12:00-12:30	All	Discussion
12:30-13:30	Lunch (Catering)	
13:30-14:30	Wrap up session	
14:30-16:00	Lab tour	
16:00	End	