

# 2<sup>nd</sup> International GaAs Quantum Dot Workshop 2024 – Traunkirchen, Austria

Time	Wednesday 17.4.	Thursday 18.4.	Friday 19.4.
09:00	Registration		
09:30	Opening	Dorian Gangloff: State engineering of a mesoscopic spin system	Evgeny Chekhovich: Quantum dot spins: Nuclear magnetic resonance perspectives
09:45	Peter Michler: Photonic integrated circuits with quantum dots		
10:00	Lucas Rickert: Fiber-pigtailed quantum dot hybrid circular Bragg gratings	Nam Nguyen: Coherent photons and a coherent spin in GaAs QDs	Martin Appel: Engineering a quantum dot nuclear spin ensemble via an optically active electron spin
10:15	Ievgen Brytavskiy: Electrically-controlled circular Bragg resonators with GaAs quantum dots		Harry Dyte: Storing quantum coherence in a quantum dot nuclear spin ensemble for over 100 milliseconds
10:30	Zhe Xian Koong: Spin-photon interface with a quantum dot in an open microcavity	Christian Schimpf: Tuning of the magnetic response of electron qubits in GaAs QDs	
10:45	Discussion	Discussion	Discussion
11:00	Coffee break	Coffee break	Coffee break
11:15			
11:30	Paola Atkinson: Nanohole anisotropy and mixing of dark and bright excitonic states in droplet-etched GaAs QDs	Philip Walther: Multiphoton experiments using quantum dot sources	Michał Gawelczyk: Phonon-assisted processes and external field effects in quantum dots
11:45			
12:00	Petr Klenovsky: Realistic calculations of correlated (multi)particle electronic structure of GaAs/AlGaAs quantum dots	Klaus Jöns: Coherent control of GaAs QDs	Mark Hogg: Fast optical manipulation of a coherent hole spin in a microcavity
12:15			Alex Ghorbal: Tuning the coherent interaction of an electron qubit and a nuclear magnon
12:30	Florian Kappe: Stimulated excitation and coherent control of dark exciton population in a quantum dot	Michele Rota: Quantum dots in photonic cavities: Challenges and perspectives	Discussion and closing
12:45	Discussion	Discussion	
13:00	Lunch break	Lunch break	Excursion & scientific discussion <a href="http://www.bergfex.at/sommer/oberoesterreich/touren/wanderung/931466,traunkirchen-kleiner-sonnstein/">www.bergfex.at/sommer/oberoesterreich/touren/wanderung/931466,traunkirchen-kleiner-sonnstein/</a>
14:30	Doris Reiter: Electron-Phonon Interaction in Quantum Dots	Sandra Stroj: Laser microprocessing (especially its application for quantum photonics)	
14:45			
15:00	Helmut Ritsch: Collective radiative phenomena in quantum emitters	Viorel Dragoi: Wafer bonding technology overview - from lab to fab	
15:15			
15:30	Yusuf Karli: Robust and coherent preparation of single photon states	Mateusz Kuniej: Theory of acousto-optical state control in QDs	
15:45	Discussion	Discussion	
16:00	Coffee break	Coffee break	
16:15			
16:30	Michael Trupke: Microcavity arrays for spin-photon entanglement	Gregor Weihs: Advanced optical excitation methods for quantum dots	
16:45			
17:00	Rinaldo Trotta: Entangled photons from GaAs quantum dots	Lorenzo Carosini: Reconfigurable time-bin processor for multi-photon quantum interference	Legend:
17:15			Invited Long
17:30	Armando Rastelli: Brief history of GaAs QDs and what we can tune	Ailton Garcia Jr.: Epitaxial growth of (In,Al)GaAs quantum dots in nanoholes	Invited Short
17:45	Discussion	Discussion	Invited Tutorial
18:30		Workshop dinner	Project Contributions