

## Program Schedule

### Artificial Atoms: from Quantum Physics to Applications

20-23 May 2013

Budapest, Hungary

	20 <sup>th</sup> May Monday	21 <sup>st</sup> May Tuesday	22 <sup>nd</sup> May Wednesday	23 <sup>rd</sup> May Thursday
09:00 - 09:45		Michael Drewsen: Cavity QED Experiments with Ion Coulomb Crystals: Towards quantum memories and photon counters	Tommaso Calarco: Quantum optimal control in AMO and NV physics	Fedor Jelezko: Quantum sensors based on single diamond defects
09:45 - 10:05		Christoph Becher: Coupling of a single NV center to a fiber-based microcavity	Ferdinand Schmidt-Kaler: Quantum technologies for solid state physics using cold trapped ions	David Simpson: Nanoscale spin sensing in artificial cell membranes
10:05 - 10:30		Michael Trupke: Arrays of microcavities for large-scale quantum systems		Philip Neumann: Nanoscale temperature sensing using single defects in diamond
10:30 - 11:00		<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>
11:00 - 11:45		Andreas Wallraf: Realization of Deterministic Quantum Teleportation with Solid State Qubits	Abram Falk: Polytype control of spin qubits in silicon carbide	Milos Nesladek: Fluorescent Nanodiamond for Biomedicine
11:45 - 12:05		Jeronimo Maze: Theoretical description for artificial atoms in diamond and the effect of nuclear spin bath on their coherence time	Brett Johnson: Single Photon Sources in Silicon Carbide	
12:05 - 12:30	<b>Registration</b>	Ressa Said: Strongly driven spin rotations in diamond	Lars Liebermeister: Single Photon Source with a Diamond Nanocrystal on an Optical Nanofiber	
12:30 - 14:00	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	
14:00 - 14:25	Helmut Ritsch: Quantum Optics with ultracold gases	Tatjana Wilk: Parametric feedback cooling of a single atom inside an optical cavity	Vladimir Dyakonov: Intrinsic defects in silicon carbide for spin-based quantum applications	
14:25 - 14:45			Georgy Astakhov: Multi-quantum spin resonances of intrinsic defects in silicon carbide	
14:45 - 15:05	Ferdinand Brennecke: Real-time observation of fluctuations at the driven-dissipative Dicke phase transition	Ronald Hanson: Quantum networks based on spins in diamond	Jean-Michel Raimond: Atoms and cavities: quantum measurement and feedback	
15:05 - 15:30				
15:30 - 16:00	<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>	
16:00 - 16:45	Yiwen Chu: Nanophotonic quantum interface for nitrogen vacancy centers in diamond	Matthew Markham: Engineering NV centres in Synthetic Diamond	Jörg Schmiedmayer: Connecting Photons to Spins	
16:45 - 17:05	John Patrick Hadden: Diamond Defect Centres for Quantum Photonics	Norikazu Mizuochi: Single photon, spin, and charge manipulation of diamond quantum register	Lachlan Rogers: Silicon-vacancy centre as an alternative artificial atom in diamond	
17:05 - 17:30			Sándor Varró: Measurable position-sensitive wide-angle interference effects of single photons radiated by a nitrogen-vacancy center in diamond	
20:00 - 23:00			<b>Dinner</b>	