

AGENDA of the DIADEMS & SIRTEQ Quantum Technologies Workshop

(Status: 11.09.2017)

Thursday, 14 September 2017

Time	Item	Speaker
08:00	<i>Welcome coffee & Installation of the posters</i>	
OPENING OF THE WORKSHOP		
08:40	Opening & Introduction	Thierry Debuisschert (Thales Research & Technology) Philippe Grangier (Institut d'Optique Graduate School)
QUANTUM COMPUTATION		
09:00	Quantum Computers – Status, Mid- and Long-Term Perspectives	Frank Wilhelm-Mauch (Saarland University)
09:40	Technology for Quantum Computing	Peter Mueller (IBM Research Zurich)
10:00	Quantum Software Programming	Cyril Allouche (ATOS – Bull)
10:20	Holonomic Quantum Gates, Geometric Phases, and Cavity QED with Defect Centers in Diamond	Guido Burkard (University of Konstanz)
10:40	<i>Coffee break</i>	
QUANTUM SIMULATION		
11:10	Quantum Simulation	Christophe Salomon (Lab. Kastler Brossel, ENS Paris)
11:50	Arrays of Single Rydberg Atoms for the Quantum Simulation of Spin Hamiltonians	Thierry Lahaye (LCF, CNRS, Institut d'Optique)
12:10	Adiabatic Ensemble Control of a Continuum of Quantum Systems	Ugo Boscain (CMAP, École Polytechnique)
LUNCH		POSTERS
12:30	<i>Buffet lunch & Informal discussions around the displayed posters</i>	
QUANTUM COMMUNICATION		
14:30	The Dawn of Quantum Networks	Ronald Hanson (Delft University of Technology)
15:10	All-Optical Synchronisation for Quantum Networks Based on Photonic Entanglement	Sébastien Tanzilli (Univ. Côte d'Azur, INPHYNI, CNRS)
15:30	Efficient Semiconductor Quantum Light Sources for Quantum Technologies	Valérian Giesz (Quandela)
15:50	Satellite-to-Ground Quantum Key Distribution	Sebastian Neumann (IQOQI, Austrian Academy of Sciences)
16:10	<i>Coffee break</i>	

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Thursday, 14 September (cont'd)

Time	Item	Speaker
ENABLING TECHNOLOGIES		
16:40	Diode Lasers – Key Systems for Quantum Technology Systems & Applications	Jürgen Stuhler (TOPTICA Photonics AG)
17:00	Enabling Quantum Technologies – Next Generation Digital Data Acquisition	Michael Schlagmüller (Swabian Instruments GmbH)
17:20	Quantum Sensing and Metrology Technologies at CSEM	Gilles Buchs (CSEM SA, Time & Frequency)
17:40	NV Centers in Silicon Carbide: a New Solid State Qubit System with Microelectr. Integration Potential	H.J. von Bardeleben (INSP, Sorbonne Univ., UPMC)
A COORDINATION ACTION TO PREPARE THE QUANTUM TECHNOLOGY FLAGSHIP		
18:00	QSA 4 QTF: a Quantum Coordination and Support Action for the QT Flagship	Tommaso Calarco (University of Ulm)
EVENING COCKTAIL		POSTERS
18:20	<i>Evening buffet & Informal discussions around the displayed posters</i>	
20:30	<i>End of DAY 1 – Shuttle bus to Massy</i>	

Friday, 15 September 2017

Time	Item	Speaker
QUANTUM SENSING		
08:15	<i>Welcome coffee</i>	
08:40	Getting the Best out of Diamond	Jörg Wrachtrup (University of Stuttgart)
09:20	Quantum Sensing Technologies with Spins in Diamond	Patrick Maletinsky (University of Basel)
09:40	Quantum Technologies at Bosch	Robert Roelver (Bosch Germany)
10:00	Atom Chips for Inertial Sensors	Matthieu Dupont-Nivet (Thales Research & Technology)
10:20	Sub μ Gal Absolute Gravity Measurements with a Transportable Quantum Gravimeter	Bruno Desruelle (Muquans)
10:40	<i>Coffee break</i>	

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Friday, 15 September 2017 (cont'd)

Time	Item	Speaker
ROUND TABLE		
11:10	Round Table	<p><u>Chairperson:</u> Jean-François Buggenhout (Deputy Head of Unit, DG CONNECT, High Performance Computing & Quantum Technologies, European Commission)</p> <p><u>Contributors:</u> Thierry Debuisschert (Thales Research & Technology) Philippe Grangier (Institut d'Optique Graduate School) Rob Thew (University of Geneva) Thomas Strohm (Bosch) Frank Wilhelm-Mauch (Saarland University) Christophe Salomon (Lab. Kastler Brossel, ENS Paris) Ronald Hanson (Delft University of Technology) Jörg Wrachtrup (University of Stuttgart)</p>
GOOD-BYE LUNCH		
12:30	<i>Buffet lunch</i>	
14:30	<i>End of the Quantum Technologies Workshop</i>	