

# Kick-off meeting

The kick-off meeting of IQUPS took place on January 20<sup>th</sup> 2017. It gathered 70 participants. There were 4 long talks and 23 short presentations.

PROGRAM:

9:50	Hugues POTHIER (SPEC)	Introduction, presentation of IQUPS
<b>10:00</b> <b>10:40</b>	<b>Pascale SENELLART (C2N)</b>	<b>Quantum dot based quantum technologies</b>
10:40 11:00	<i>Coffee break</i>	
<b>11:00</b> <b>11:40</b>	<b>Richard DEBLOCK (LPS)</b>	<b>The Orion microscope : a platform for nanofabrication with helium and neon ions</b>
Short presentations, SESSION A		
11:40	Alberto AMO (C2N)	Polariton lattices for quantum simulation
11:47	Thomas BOURDEL (LCF)	Propagation of a bright soliton through a disordered potential
11:54	Chris WESTBROOK (LCF)	Detection of Correlations and Entanglement
12 :01	Laurent SANCHEZ-PALENCIA (CPhT)	Out-of equilibrium dynamics of quantum systems with short- and long-range interactions
12:08	Denis VION (SPEC)	Quantum Zeno dynamics in 3D circuit QED
12:15	Grégoire MISGUICH (IPhT)	Numerics for the Lindblad dynamics of one-dimensional interacting quantum systems
12:22	Jean-Pierre HERMIER (GEMAC)	Colloidal quantum dots for quantum optics
12:29	Hans LIGNIER (LAC)	Fast internal cooling of diatomic molecules
12:36	Laurence PRUVOST (LAC)	Optical vortex and its quantum orbital angular momentum
12:50 14:00	<i>LUNCH (buffet in the Hall)</i>	
<b>14:00</b> <b>14:40</b>	<b>Loïc RONDIN (LAC)</b>	<b>Imaging magnetism with NV spins in diamond</b>

Short presentations, SESSION B		
14:40	Nathalie VAST (LSI)	Project of the theoretical study of deep levels in large gap semiconductors (the NV center in diamond and silicon carbide)
14:47	Patrice BERTET (SPEC)	Magnetic resonance at the quantum limit
14:54	Thierry DEBUISSCHERT (Thales Research & Technology)	NV centers for sensing applications
15:01	Paul HILAIRE (C2N)	A spin-photon interface for quantum computing
15:08	Daniel LANZILLOTTI KIMURA (C2N)	Acoustic-phonon engineering
15:15	Isabelle ZAQUINE (LTCI)	Quantum information and application team at Télécom-ParisTech
15:22	Frédéric GROSSHANS (LAC)	Theoretical Quantum Information at Aimé Cotton (éTICC team)
15:29	Romain ALLÉAUME (LTCI)	High-dimensional hybrid quantum cryptography
15:40 16 :00	<b><i>Coffee break</i></b>	
<b>16:00 16:40</b>	<b>Thierry LAHAYE (LCF)</b>	<b>Quantum engineering and quantum simulation using arrays of individual Rydberg atoms</b>
Short presentations, SESSION C		
16:40	Ulf GENNSER (C2N)	Quantum engineering at the Phynano group of C2N
16:47	François PARMENTIER (SPEC)	van der Waals heterostructures on the Plateau de Saclay
16:54	Marcelo GOFFMAN (SPEC)	Andreev Quantum Dots
17:01	Vardan KALADZHYAN (LPS, IPhT)	Engineering topological superconductors with impurities
17:08	Taro WAKAMURA (LPS)	Spin-orbit interaction in graphene induced by transition metal dichalcogenides
17:15	Alexei CHEPELIANSKII (LPS)	Spin and transport properties of photo-excited states