

## GDR MESO Réunion Plénière 23 au 26 novembre 2020

### Posters

#### Qubits hybrides, semiconducteurs et électrodynamique quantique

(1 )- 1,2,3...many photons emitted by a Josephson junction strongly coupled to a microwave resonator

*Gerbold Ménard, Iouri Mukharsky, Ambroise Peugeot, Chloé Rolland, Denis Vion, Philippe Joyez, Patrice Roche, Daniel Esteve, Carles Altimiras, Fabien Portier*

(2 )-Graphene based quantum superconducting circuits

*Guilliam Butseraen, François Lefloch, Julien Renard*

(3 )-Multiplexed photon number measurement using a superconducting qubit

*Antoine Essig, Quentin Ficheux, Théau Peronnin, Nathanael Cottet, Raphaël Lescanne, Alain Sarlette, Pierre Rouchon, Zaki Leghtas, Benjamin Huard*

(4 )-Squeezing of edge\_magnetoplasmon states in Quantum Hall edge channels

*Hugo Bartolomei, Rémi Bisognin, Erwann Bocquillon, Antonella Cavanna, Ulf Gennser, Yong Jin, Jean-Marc Berroir, Bernard Placais, Gwendal Feve*

(5 )-Superradiant Quantum Phase transition in Rashba and Zeeman Cavity QED

*Guillaume Manzanares*

(6 )-Ultrafast charging in a two-photon Dicke quantum battery

*Alba Crescente*

#### Transport, transfert d'énergie, réactivité chimique en cavité plasmonique

(7 )-Collisional interferometry of levitons in quantum Hall edge channels at  $\nu=2$

*Giacomo Rebora, Matteo Acciai, Dario Ferraro, Maura Sassetti*

(8 )-Ferromagnetic instability in ensembles of gold nanoparticles

*Gaetan Percebois*

(9 )-Heat Conductance in a Quasi-ballistic InAs Nanowire

*daniel MAJIDI, Mukesh Kumar, Lars Samuelson, Herve Courtois, Clemens Winkelmann, Ville F. Maisi*

(10 )-Polaritons in periodic chains of metallic nanoparticles: a QED approach

*Thomas Allard*

#### Systèmes 2D

(11 )-Demonstration of PdSe<sub>2</sub> van der Waals MISFETs

*Romaric Le Goff, Zheng Liu, Takashi Taniguchi, Kenji Watanabe, Christophe Voisin, Jean-Marc Berroir, Erwann Bocquillon, Gwendal Fèvre, Jean Chazelas, Emmanuel Baudin, Bernard Placais*

**(12 )**-Investigating Ising and Triplet Superconductivity in few-monolayer NbSe<sub>2</sub>

*Marko Kuzmanović, Tom Dvir, David Möckli, Stefan Ilić, Julia Meyer, Manuel Houzet, Marco Aprili, Maxim Khodas, Hadar Steinberg, Charis Quay*

**(13 )**-Robust electronic states due to inhomogeneous spin-orbit couplings in graphene heterostructure

*Jean-Baptiste Touchais, Pascal Simon, Andrej Mesaros*

**(14 )**-Scanning gate microscopy of a pn junction in graphene

*Marco Guerra*

**(15)**-Thermal transport in quantum Hall states in graphene

*Raphaëlle Delagrange, Gaëlle Le Breton, Myunglae Jo, Takashi Taniguchi, Kenji Watanabe, Preden Roulleau, Patrice Roche, François Parmentier*

#### **Transport quantique d'électrons et de chaleur**

**(16 )**-Electric field control of photonic heat transport in a superconducting circuit

*Olivier Maillet, Diego Subero, Joonas Peltonen, Dmitry Golubev, Jukka Pekola*

**(17 )**-Influence de l'anomalie chirale sur le transport non-local des semi-métaux de Weyl

*Sergueï Tchoumakov, Bogusz Bujnowski, Jérôme CAYSSOL, Adolfo Grushin*

#### **Supraconductivité mésoscopique, Qubits hybrides, semiconducteurs et électrodynamique quantique**

**(18)**-Implementing low-impedance resonators resilient to magnetic field and dielectric losses for nanoscale paramagnetic resonance detection

*Arne Bahr, benjamin huard, Audrey Bienfait*

**(19)**-Robust supercurrent in graphene Josephson junctions assisted by strong spin-orbit interaction

*NianJheng WU, Taro Wakamura*

**(20 )**-Transconductance quantization in a topological Josephson tunnel junction circuit

*Léo Peyruchat, Joël Griesmar, Jean-Damien Pillet, Çağlar Girit*

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