

LIA Circuits et Matériaux Quantiques

Colloque du 2-4 octobre 2019 - Jouvence

Mardi 1 octobre

- 18:00 Arrivée des Français
19:00 **Souper**

Mercredi 2 octobre

- 7:00 – 9:00 **Petit-déjeuner**
- 9:00 – 9:30 Introduction – Discussion préliminaire sur l'avenir du LIA
- 9:30 – 10:10 Dorothée Colson (SPEC Saclay)
Elaboration of mercury-based cuprate single crystals: a crucial step for investigating high T_c superconductors.
- 10:10 – 11:00 **Pause café**
- 11:00 – 11:40 Alain Sacuto (Paris Diderot)
Energy Scale of the Charge Density Waves in Cuprate superconductors.
- 11:40 – 12:20 Gaël Grissonnanche (Sherbrooke)
Giant thermal Hall conductivity in the pseudogap phase of cuprate superconductors
- 12:20 – 16:00 **Pause Déjeuner et discussion**
- 16:00 – 16:40 Jean François Roch (ENS Paris Saclay)
NV centers in diamond as quantum sensors for high-pressure physics
- 16:40 – 19:00 *Poster* : présentation (30 s / poster) + session + apéritif
- 19:00 **Souper**

Jeudi 3 octobre

- 7:00 – 8:30 **Petit-déjeuner**
- 8:30 – 9:10 Denis Vion (SPEC Saclay)
Quantum microwaves produced by a dc-biased Josephson junction
- 9:10 – 9:50 Hélène Bouchiat (LPS Orsay)
Revealing the second-order topological character of bismuth-based Josephson junction
- 9:50 – 10:50 **Pause café**
- 10:50 – 11:30 Preden Roulleau (SPEC Saclay)
A Josephson relation for fractionally charged anyons
- 11:30 – 12:10 Agustin di Paolo (Sherbrooke)
Protected superconducting qubits based on high-impedance modes
- 12:10 – 16:00 **Pause Déjeuner et discussion**
- 16:00 – 16:40 Antoine Georges (Collège de France et Flatiron institute)
Strong Correlations in Multi-Orbital Materials: Beyond Mottness
- 16:40 – 17:20 N. Dupuis (LPTMC Paris)
Mott transition: from bosons in optical lattices to quasi-one-dimensional electronic systems
- 17:20 – 19:00 *Poster*
- 19:00 **Souper**

Vendredi 4 octobre

- 7:00 – 8:30 **Petit-déjeuner**
- 8:30 – 9:10 Marco Aprili (LPS Orsay)
Spin-dependent transport in mesoscopic superconductors
- 9:10 – 9:50 Edwin Kermarrec (LPS Orsay)
Quantum spin liquid in $S_{\text{eff}}=1/2$ rare-earth based frustrated magnets
- 9:50 – 10:50 **Pause café**
- 10:50 – 12:00 *Table Ronde*
- 12:00 – **Pause Déjeuner puis départ**