**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

Chairman : Louis Taillefer

9:30 – 10:10 Dorothée Colson (SPEC Saclay)

*Elaboration of mercury-based cuprate single crystals: a crucial step for investigating high Tc 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**

Chairman : Denis Morris

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**

Chairman : Max Hofheinz

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**

Chairman : André-Marie Tremblay

16:00 – 16:40 Antoine Georges (Collège de France et Flatiron Institute)

*Strong Correlations in Multi-Orbital Materials: Beyond Mottness*

16:40 – 17:20 Nicolas 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**

Chairman : Jeffrey Quilliam

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 Seff=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