



CHAIRE INNOVATION TECHNOLOGIQUE LILIANE BETTENCOURT

Année académique 2017-2018

Thomas EBBESEN

Professeur

QED-M2 «New QED Landscapes for Molecules and Materials»

Colloque en anglais. Colloquium in English

Lundi 18 et mardi 19 juin 2018, amphithéâtre Maurice Halbwachs.

MONDAY JUNE 18TH

- 8:50 **Arrival and welcome**
Thomas Ebbesen
- 9:00 **Wolfgang Wernsdorfer** (KIT, Karlsruhe)
Operating quantum states in single magnetic molecules
- 9:35 **Mario Ruben** (KIT, Karlsruhe)
Engineering molecular spin qubits
- 10:10 **Päivi Törmä** (Aalto University, Helsinki)
Bose-Einstein condensation in a plasmonic lattice
- 10:45 **Coffee break**
- 11:05 **Cyriaque Genet** (CNRS & University of Strasbourg)
Chiral Coupling of Valley Excitons with Spin-Momentum Locked Surface Plasmons
- 11:40 **Francisco Garcia-Vidal** (Madrid Autonomous University)
Polaritons for Chemistry and Materials Science
- 12:30 **Lunch**
- 14:00 **Francis Spano** (Temple University, Philadelphia)
Theory of Vibronic Polaritons in Optical Microcavities: The Effects of Multi-particle States
- 14:35 **Jaime Gomez-Rivas** (Eindhoven Institute of Technology)
Strong light-matter coupling in extended open cavities
- 15:10 **Giacomo Mazza** (Ecole Polytechnique, Paris)
Strong light-matter coupling and collective phenomena in quantum materials
- 15:45 **Coffee break**
- 16:05 **Xiaolan Zhong** (Beihang University, Beijing)
Non-radiative energy transfer via light-matter strong coupling
- 16:25 **Jino George** (IISER, Mohali, India)
Conductivity and Photoconductivity under Strong Coupling
- 16:45 **Tal Schwartz** (Tel Aviv University)
Tailoring energy transport in molecules by confined photons
- 17:05 **Luis Martin-Moreno** (University of Zaragoza)
Molecular Cavity Quantum Electrodynamics: ultrastrong coupling effects

TUESDAY JUNE 19TH

- 9:00 **Greg Scholes** (Princeton University)
Coupling Vibrational Modes Using Light
- 9:35 **Naomi Ginsberg** (UC Berkeley)
Functional structure of energy materials through universal tracing of tortuous excitation paths
- 10:10 **Jenny Clark** (Sheffield University)
Triplet Pair States in Organic Semiconductors
- 10:45 **Coffee break**
- 11:05 **Vahid Sandoghdar** (MPI, Erlangen)
Photonic spook: Molecules feeling each other at large distances
- 11:40 **Guido Pupillo** (University of Strasbourg & CNRS)
Cavity enhanced transport of excitons and charge
- 12:30 **Lunch**
- 14:00 **Jana Zaumseil** (Heidelberg University)
Weak and strong light-matter coupling with semiconducting polymers and carbon nanotubes
- 14:35 **Claudiu Genes** (MPI, Erlangen)
Applications of collective subradiant states of coupled quantum emitters
- 15:10 **Javier Aizpurua** (DIPC, San Sebastian)
Cavity-enhanced molecular optomechanics
- 15:45 **Coffee break**
- 16:05 **Karl Börjesson** (University of Göteborg)
Selective Manipulation of Electronically Excited States through Strong Light-Matter Interactions
- 16:25 **Atef Shalabney** (Braude College, Israel)
Molecular vibrational strong coupling: novel route to modify materials properties
- 16:45 **Anoop Thomas** (University of Strasbourg & CNRS)
Chemistry under Vibrational Light-Matter Strong Coupling
- 17:05 **Bill Barnes** (University of Exeter)
The vacuum as an engineering material