| | Wednesday the 16th of November 2022 | Thursday the 17th of November 2022 | Friday the 18th of November 2022 |
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| 8:00 | **Conference opening - *Collection of badges in the main hall*** | | |
| 8:30 | **Welcome - Anaïs Dréau & Sylvain Ravets** | | |
| 9:00 | **Retour sur 13 ans d'IQFA - S. Tanzilli** | **Tutorial - TEM - Atac Imamoglu (ETH Zurich, CH): *Kinetic magnetism in moire materials*** | **Tutorial - QCOM - Benjamin Brecht (Paderborn University, DE): *High-dimensional quantum communication with temporal modes*** |
| 9:30 | **Tutorial - QPAC - Richard Kueng (Johannes Kepler Universität Linz, AT): *TBA*** | | |
| 10:00 | | TEM - S. Zihlmann (CEA Grenoble, FR): *Coherent coupling of a microwave photon to a hole spin in silicon* | QCOM - J.-D. Bancal (IPhT, CEA, FR): *Experimental quantum key distribution certified by Bell's theorem* |
| 10:30 | Coffee break | Coffee break | Coffee break |
| 11:00 | **Invited talk - QPAC - Ulrik Andersen (DTU, DK) : *Photonic Quantum Computing with Continuous Variables*** | TEM - T. Ray (CNRS, Collège de Fr., PSL Univ., FR): *Optical switching with cold atoms trapped around a nanofiber* | QCOM - P. Hilaire (Quandela, FR & U. Leiden, NL) *Fundamental loss-tolerance thresholds of logical linear-optical Bell state measurements* |
| 11:30 | QPAC - A. Clément (CNRS, INRIA, FR): *From a Formal Framework for Optical Circuits to a Complete Equational Theory for Quantum Circuits* | TEM - Y. Seis (Niels Bohr Institute, DK & ENS Lyon , FR): *Ground state cooling of an ultracoherent electromechanical system* | QCOM - D. Fioretto (CNRS, U.P.-Saclay, FR): *High-rate entanglement between a semiconductor spin and indistinguishable photons* |
| 12:00 | QPAC - A. Marquet (ENS Lyon, FR): *Passive two-photon dissipation for bit-flip error correction of a cat code* | TEM - A. Rodriguez (CNRS, U.P.-Saclay, FR): *Polarization-controlled Brillouin scattering in elliptical optophononic micropillar resonator* | QSIM - F. Baboux (Univ. Paris Cité, FR): *Generation of spatially entangled states of light in nonlinear waveguide arrays* |
| 12:30 | Lunch | Lunch | Lunch |
| 14:00 | **Tutorial - FQA - Ana Belen Sainz (University of Gdansk, PL): *Quantum resources from non-classical phenomena*** | **Tutorial - QMET - Olivier Arcizet (Institut Néel, FR): *Ultrasensitive vectorial force field imaging with suspended nanowires : exploration of proximity forces and cavity nano-optomechanics at small photon number*** | **Invited talk - QSIM - Quentin Glorieux (PSL Univ., FR): *Non-equilibirium physics and turbulence in a fluid of light*** |
| 14:30 | | | QSIM - R. Dubessy (Univ. Paris 13, FR): *A fast rotating superfluid on a curved surface* |
| 15:00 | FQA - M.-O. Renou (ICFO, ES): *Quantum theory needs complex numbers* | QMET - T. Clua-Provost (CNRS, Univ. Montpellier, FR): *Quantum sensing with spin defects hosted in a van der Waals material* | QSIM - A. Le Boité (CNRS, Univ. Paris Cité, FR): *Non-Gaussian superradiant transition via three-body ultrastrong coupling* |
| 15:30 | Coffee break | Coffee break | Closing session - A. Dréau |
| 16:00 | **Invited talk - FQA - Natalia Ares (Univ. of Oxford, UK): *Accessing thermodynamic quantities at the nanoscale*** | **Invited talk - QMET - Akash Dixit (NIST, USA): *Searching for Dark Matter with Superconducting Qubits*** | |
| 16:30 | FQA - P.-E. Emeriau (Quandela, FR): *Contextuality and Wigner negativity are equivalent for continuous-variable measurements* | QMET - R. Assouly (ENS Lyon, FR): *Demonstration of Quantum Advantage in Microwave Quantum Radar* | |
| 17:00 | FQA - R. Mothe (CNRS, Univ. Grenoble Alpes, FR): *Indefinite causal order strategies in quantum metrology* | QMET - A. Louchet-Chauvet (CNRS, ESPCI, FR): *High frequency vibration sensing in cryostats* | |
| 17:30 | Poster session 1 | Poster session 2 | |
| 19:30 | | Banquet | |