PROGRAMME

May 13 (Mon)

08:30－ REGISTRATION

09:15－09:30 OPENING

Chair: **Yasunobu Nakamura**

09:30－10:00 Mo-01 **Michel Devoret** (Yale University)
A stabilized logical quantum bit encoded in grid states of a superconducting cavity

10:00－10:30 Mo-02 **Aashish Clerk** (The University of Chicago)
Driven-dissipative nonlinear cavities: new exact solution methods

10:30－11:00 COFFEE BREAK

Chair: **William Oliver**

11:00－11:30 Mo-03 **Abhinav Kandala** (IBM)
Error-mitigated quantum computation with noisy superconducting qubits

11:30－12:00 Mo-04 **Keisuke Fujii** (Osaka University)
Applications of noisy-intermediate-scale quantum computing for machine learning and quantum simulation

12:00－12:30 Mo-05 **Theodore White** (Google)
Superconducting qubits at the threshold of quantum supremacy

12:30－14:00 LUNCH

Chair: **Gerd Schön**

14:00－14:30 Mo-06 **Andrew Houck** (Princeton University)
Intrinsically error-protected superconducting qubits

14:30－15:00 Mo-07 **Kouichi Semba** (NICT)
Light-matter interaction beyond strong coupling in circuit QED

15:00－15:30 Mo-08 **Frank Wilhelm** (Saarland University)
Control and coherence in high-fidelity gate design

15:30－17:00 POSTER SESSION (Odd number posters)

Chair: **Liang Jiang**

17:00－17:30 Mo-09 **Patrice Bertet** (CEA Saclay)
Circuit-QED-enhanced magnetic resonance

17:30－18:00 Mo-10 **Dany Lachance-Quirion** (The University of Tokyo)
Detection of magnons in the quantum regime with a superconducting qubit

May 14 (Tue)

Chair: **Daniel Esteve**

09:00－09:30 Tu-01 **Alexandre Blais** (University of Sherbrooke)
Quantum metamaterial for nondestructive microwave photon counting

09:30－10:00 Tu-02 **Benjamin Huard** (ENS Lyon)
Photocounting using multiplexed readout of the fluorescence of a coupled qubit

10:00－10:30 Tu-03 **Andrew Jordan** (University of Rochester)
Measuring superconducting qubits: quantum trajectories to quantum sensing

10:30－11:00 COFFEE BREAK

Chair: **Alexey Ustinov**

11:00－11:30 Tu-04 **Mazyar Mirrahimi** (INRIA)
Cat qubits: scaling

11:30－12:00 Tu-05 **Luyan Sun** (Tsinghua University)
Experimental quantum error correction with binomial bosonic codes

12:00－12:30 Tu-06 **Leonardo DiCarlo** (QuTech and TU Delft)
Protecting quantum entanglement from leakage during repeated error correction cycles

12:30－14:00 LUNCH

Chair: **Per Delsing**

14:00－14:30 Tu-07 **Andrew Cleland** (The University of Chicago)
Acoustic phonon Fock states and phonon-mediated quantum entanglement

14:30－15:00 Tu-08 **Atsushi Noguchi** (The University of Tokyo)
Quantum gate with a radiation pressure interaction between superconducting qubits

15:00－15:30 Tu-09 **John Teufel** (NIST)
Ultrastrong parametric coupling in microwave optomechanical circuits

15:30－17:00 POSTER SESSION (Even number posters)

Chair: **Franco Nori**

17:00－17:30 Tu-10 **Kevin O'Brien** (MIT)
Josephson traveling wave parametric amplifiers (JTWPAs)

17:30－18:00 Tu-11 **Michael Hatridge** (University of Pittsburgh)
Improving parametric amplifiers with multiple parametric drives

18:30－20:30 BANQUET (Room 101+102, 1st Floor)

May 15 (Wed)

Chair: **Hans Mooij**

09:00－09:30 We-01 **Oleg Astafiev** (Skoltech, and Royal Holloway, University of London)
Charge quantum interference device

09:30－10:00 We-02 **Hugues Pothier** (CEA Saclay)
Probing and manipulating Andreev bound states

10:00－10:30 We-03 **Gianluigi Catelani** (Jülich Research Center)
Measuring and controlling quasiparticles in superconducting qubits

10:30－11:00 COFFEE BREAK

Chair: **Göran Wendin**

11:00－11:30 We-04 **Frank Deppe** (Walther-Meißner Institute)
Secure quantum remote state preparation of squeezed microwave states

11:30－12:00 We-05 **Isil Ozfidan** (D-Wave Systems)
Demonstration of nonstoquastic Hamiltonian in coupled superconducting flux qubits

12:00－12:30 We-06 **Britton Plourde** (Syracuse University)
Building an interface between superconducting qubits and cryogenic digital circuitry

12:30－14:00 LUNCH

Chair: **David Haviland**

14:00－14:30 We-07 **Robert Schoelkopf** (Yale University)
Hardware-efficient quantum error correction

14:30－15:00 We-08 **Xiaobo Zhu** (University of Science and Technology of China)
Genuine 12-qubit entanglement on a superconducting quantum processor

15:00－15:30 We-09 **David Schuster** (The University of Chicago)
Modular superconducting quantum computing

15:30－16:00 COFFEE BREAK

Chair: **Jaw-Shen Tsai**

16:00－16:30 We-10 **Oskar Painter** (Caltech)
Channeling quantum interactions: experiments in waveguide QED with superconducting quantum circuits

16:30－17:00 We-11 **Andreas Wallraff** (ETH Zurich)
Single photon detectors, parity measurements and heralded cat states in the microwave domain

17:00－17:30 CLOSING & DEPARTURE