

Quantum Science Generation | QSG 2024

Monday, 6 May 2024

Talks (15:30 - 16:00)

-Conveners: Gabriele Spada

time	[id] title	presenter
15:30	[20] Attractive binary Bose mixtures at finite temperature	SPADA, Gabriele

Talks (16:30 - 17:30)

-Conveners: Pietro Campana; Leonard Logaric

time	[id] title	presenter
16:30	[6] Quantum Many-Body Scars in Dual-Unitary Circuits	LOGARIC, Leonard
17:00	[61] Towards a quantum-limited, broadband amplifier for the readout of superconducting qubit arrays	CAMPANA, Pietro

Tuesday, 7 May 2024

Talks (10:00 - 10:30)

-Conveners: **Giuliano Chiriaco**

time	[id] title	presenter
10:00	[68] Quantum dynamics and entanglement in non-Markovian systems	CHIRIACÒ, Giuliano

Talks (11:30 - 12:30)

-Conveners: **Vincenzo Ardizzone; Gian Marcello Andolina**

time	[id] title	presenter
11:30	[72] Dicke superradiant enhancement of the heat current in circuit QED	ANDOLINA, Gian Marcello
12:00	[3] Exciton-polaritons as a platform for quantum optics in solid-state systems	ARDIZZONE, Vincenzo

Talks (14:00 - 16:00)

-Conveners: **Denis Vasilyev; Ivan Panadero Muñoz; Michele Dall'Arno; Christian Schilling**

time	[id] title	presenter
14:00	[52] Quantum Information Perspective on the Ground State Problem: What is Electron Correlation?	SCHILLING, Christian
14:30	[91] Enhancing readout in nitrogen vacancy center in diamond: leveraging photon statistics for analyzing ionization dynamics	PANADERO MUÑOZ, Ivan
15:00	[39] Data-driven self-calibration of quantum circuits	DALL'ARNO, Michele
15:30	[54] Optimal and Variational Quantum Metrology	Dr VASILYEV, Denis

Talks (16:30 - 17:30)

-Conveners: **Giuseppe Emanuele Chiatto; Nicola Carlon Zambon**

time	[id] title	presenter
16:30	[84] Remote entanglement of optically levitated nanoparticles	CARLON ZAMBON, Nicola
17:00	[16] Spectroscopic characterization of the Markov to non-Markov transition in qubit-impurity systems	CHIATTO, Giuseppe Emanuele

Wednesday, 8 May 2024

Talks (10:00 - 10:30)

-Conveners: Markus Schmitt

time	[id] title	presenter
10:00	[92] Simulating non-equilibrium dynamics of Rydberg atom arrays	SCHMITT, Markus

Talks (11:00 - 12:30)

-Conveners: Matthew Eiles; Francesco Preti; Oriel Kiss

time	[id] title	presenter
11:00	[77] Statistical evaluation and optimization of entanglement purification protocols	PRETI, Francesco
11:30	[78] Early Fault-Tolerant Quantum Algorithms in Practice for Ground State Energy Estimation	KISS, Oriel
12:00	[81] From trilobite molecules to tight-binding models	EILES, Matthew

Talks (14:00 - 15:00)

-Conveners: Marco Tesoro; Pietro Bovini

time	[id] title	presenter
14:00	[83] Bose-Fermi mixtures with pairing interactions in two dimensions	BOVINI, Pietro
14:30	[85] Tensor Network approach for factoring RSA numbers	TESORO, Marco

Talks (16:30 - 17:30)

-Conveners: Narendra Hegade; Luis Colmenarez

time	[id] title	presenter
16:30	[88] Digitized Counterdiabatic Quantum Computing	Dr HEGADE, Narendra
17:00	[89] Quantum Circuit Discovery for Fault-Tolerant Logical State Preparation with Reinforcement Learning	COLMENAREZ, Luis

Thursday, 9 May 2024

Talks (10:00 - 10:30)

-Conveners: **Alessandro Summer**

time	[id] title	presenter
10:00	[5] Calculating the many-body density of states on a digital quantum computer	SUMMER, Alessandro

Talks (11:00 - 12:30)

-Conveners: **Enrico Di Benedetto; Raphael Holzinger; Bence Gábor**

time	[id] title	presenter
11:00	[8] Harnessing quantum emitter rings for efficient energy transport and trapping	HOLZINGER, Raphael
11:30	[4] Quantum Optics near Photonic Flat Bands	DI BENEDETTO, Enrico
12:00	[41] Ground-state bistability of cold atoms in a cavity	GÁBOR, Bence

Talks (15:00 - 15:30)

-Conveners: **Marco Govoni**

time	[id] title	presenter
15:00	[94] Simulating condensed systems on quantum computers with quantum embedding	GOVONI, Marco

Friday, 10 May 2024

Talks (10:00 - 10:30)

-Conveners: Taira Giordani

time	[id] title	presenter
10:00	[96] Generation of entangled photonic states from semiconductor quantum dots	GIORDANI, Taira

Talks (12:00 - 12:30)

-Conveners: Jeremy C. Adcock

time	[id] title	presenter
12:00	[90] Scalable silicon quantum photonics	C. ADCOCK, Jeremy

Talks (14:00 - 14:30)

-Conveners: Maja Colautti

time	[id] title	presenter
14:00	[102] Photonic Quantum Technologies with Single Organic Molecules	COLAUTTI, Maja