

## **Session Program**

**9-13 Sept 2024**



## **Annual Meeting of the Swiss Physical Society 2024**

### ***Atomic Physics and Quantum Optics***

ETH Zürich  
Gebäude ETA/ETF/ETZ Gloriastr. 35, 8092 Zürich

# Thursday 12 September

14:00

## Atomic Physics and Quantum Optics: I

Session | Location: ETF E 1

14:00–14:30

### 【401】 Language models for the simulation of quantum many-body

#### Speaker

Juan Carasquilla

14:30–15:00

### 【402】 Einstein-Podolsky-Rosen experiment with two Bose-Einstein condensates

#### Speaker

Paolo Colciaghi

15:00–15:15

### 【403】 Quantum synchronization through the interference blockade

#### Speaker

Tobias Kehr

15:15–15:30

### 【404】 Quantum backflow within circular geometry

#### Speaker

Arseni Goussev

15:30–15:45

### 【405】 Universal entropy transport far from equilibrium across the BCS-BEC crossover

#### Speaker

Meng-Zi Huang

15:45–16:00

### 【406】 Nonreciprocal synchronization of active quantum spins

#### Speaker

Tobias Nadolny

16:00–16:15

### 【407】 Towards a two-qubit gate with grid states encoded in the motion of a trapped ion

#### Speaker

Florence Berterottière

16:15–16:30

### 【408】 On-chip time-bin-entangled quantum state generation and tomography for optical quantum communication

#### Speaker

Giovanni Finco

16:30

17:00

## Atomic Physics and Quantum Optics: II

Session | Location: ETF E 1

17:00–17:30

### 【411】 Quantum technologies for trapped molecular ions

**Speaker**

Stefan Willitsch

17:30–18:00

**【412】 Metrology of highly excited states of the hydrogen atom****Speaker**

Simon Scheidegger

18:00–18:15

**【413】 Progress towards multi-particle entanglement generation and manipulation in an optical tweezer array of  $^{171}\text{Yb}$  nuclear-spin qubits****Speaker**

Alexander Baumgärtner

18:15–18:30

**【414】 A cavity-microscope for micrometer-scale control of atom-photon interactions****Speaker**

Michael Alexander Eichenberger

18:30–18:45

**【415】 Exploiting frequency metrology fiber networks for earthquake sensing****Speaker**

Dr Dominik Husmann

18:45–19:00

**【416】 Bragg-spectroscopy of a dissipation-induced instability in an atom-cavity system****Speaker**

Gabriele Natale

19:00