### 4th PSI Condensed Matter Summer Camp 2023

### **Report of Contributions**

Contribution ID: 1 Type: not specified

### Arrival / Registration / check-in

Sunday, 6 August 2023 16:00 (4 hours)

Departure

#### Contribution ID: 2 Type: not specified

### Departure

Friday, 11 August 2023 13:30 (1h 30m)

Contribution ID: 42 Type: not specified

# Using muons to probe quantum entanglement and spin liquids

Monday, 7 August 2023 09:00 (45 minutes)

**Presenter:** BLUNDELL, Stephen (University of Oxford)

Contribution ID: 43 Type: not specified

#### van der Waals magnets: neutron and synchrotron

Monday, 7 August 2023 09:45 (45 minutes)

Presenter: PARK, Je-Geun

Contribution ID: 44 Type: **not specified** 

### **Numerical Studies of Quantum Spin Liquids**

Monday, 7 August 2023 11:00 (45 minutes)

**Presenter:** LÄUCHLI HERZIG, Andreas Martin (PSI - Paul Scherrer Institut / EPFL)

Contribution ID: 45 Type: not specified

### Nonequilibrium Quantum Magnetism

Monday, 7 August 2023 14:00 (45 minutes)

**Presenter:** NORMAND, Bruce George Alexander (PSI - Paul Scherrer Institut)

Contribution ID: 46 Type: not specified

#### Ultrafast linear and nonlinear transport on chip

Monday, 7 August 2023 14:45 (45 minutes)

**Presenter:** WANG, Eryin

Contribution ID: 47 Type: **not specified** 

### Engineering quantum geometry and light matter interactions at oxide interfaces

Monday, 7 August 2023 16:00 (45 minutes)

**Presenter:** CAVIGLIA, Andrea (Max Planck Research Department for Structural Dynamics, University of Hamburg)

Contribution ID: 48 Type: not specified

### Quantum microscopy on 2D magnets

Tuesday, 8 August 2023 08:00 (45 minutes)

**Presenter:** WRACHTRUP, Jörg

Contribution ID: 49 Type: not specified

## Illuminating Atomic-Scale Devices: 2D Electron Systems in Traditional Semiconductors

Tuesday, 8 August 2023 08:45 (45 minutes)

Presenter: SCHOFILED, Steven

Contribution ID: 50 Type: not specified

# Imaging quantum materials with scanning SQUID microscopy

Tuesday, 8 August 2023 10:00 (45 minutes)

Presenter: KALISKY, Beena

Contribution ID: 51 Type: not specified

### Spin dynamics in the triangular lattice: the case of delafossites

Tuesday, 8 August 2023 15:30 (45 minutes)

**Presenter:** NIKITIN, Stanislav (PSI - Paul Scherrer Institut)

Contribution ID: 52 Type: not specified

#### **Next Level 2D Quantum Materials**

Tuesday, 8 August 2023 16:45 (45 minutes)

**Presenter:** ROY, Xavier

Contribution ID: 53 Type: not specified

### Non-equilibrium dynamics of thin film perovskites and its interfaces

Tuesday, 8 August 2023 17:30 (45 minutes)

**Presenter:** STAUB, Urs (PSI - Paul Scherrer Institut)

Contribution ID: 54 Type: not specified

### Welcome and Opening of the Camp

Monday, 7 August 2023 08:45 (15 minutes)

Presenter: KENZELMANN, Michel (PSI - Paul Scherrer Institut)

Contribution ID: 55 Type: not specified

# The conspicuous case of 1T-TaS2: from polaron condensation to x-ray modulators

Wednesday, 9 August 2023 08:00 (45 minutes)

**Presenter:** MIHAILOVIC, Dragan (Jozef Stefan Institute)

Contribution ID: 56 Type: not specified

#### 2D materials and heterostructures at the atomic scale

Wednesday, 9 August 2023 08:45 (45 minutes)

Presenter: LUICAN-MAYER, Adina

Contribution ID: 57 Type: not specified

# Explorations from electric controlled ferroics/multiferroics to emergent transition metal oxide monolayers

Wednesday, 9 August 2023 10:00 (45 minutes)

**Presenter:** HE, (Helen) Qing

Contribution ID: 58 Type: not specified

## Advances and Future Prospects in Interfaces engineering and Freestanding Oxide Films

Wednesday, 9 August 2023 15:30 (45 minutes)

Presenter: PRYDS, Nini

Contribution ID: 59 Type: not specified

### Emergent topological properties of twisted graphene devices

Wednesday, 9 August 2023 16:45 (45 minutes)

**Presenter:** EFETOV, Dmitri

Contribution ID: 60 Type: not specified

### The Quantum Twisting Microscope

Wednesday, 9 August 2023 17:30 (45 minutes)

Presenter: ILANI, Shahal

Contribution ID: 62 Type: not specified

### Flat bands and superconductivity in graphene-based materials

Thursday, 10 August 2023 08:00 (45 minutes)

Presenter: BLACK-SCHAFFER, Annica

Contribution ID: 63 Type: not specified

# Tuning and understanding the intertwined phases in quasi-2D superconductors: the case of La-based cuprate and V-based kagome materials

Thursday, 10 August 2023 08:45 (45 minutes)

Presenter: GUGUCHIA, Zurab (PSI - Paul Scherrer Institut)

Contribution ID: 64 Type: not specified

### **Natural Superlattice Approaches to 2D materials**

Thursday, 10 August 2023 10:00 (45 minutes)

**Presenter:** CHECKELSKY, Joseph (MIT)

Contribution ID: 65 Type: not specified

#### Resonant Inelastic X-ray Scattering on 2D Materials: Nematic Spin Correlations in FeSe and Observation of the Flat Magnon Band in a Ferromagnetic Kagome Metal

Thursday, 10 August 2023 15:30 (45 minutes)

**Presenter:** SCHMITT, Thorsten (PSI - Paul Scherrer Institut)

Contribution ID: 66 Type: not specified

## Photoemission spectroscopy of CDW and SDW phases in low dimensional materials

Thursday, 10 August 2023 16:45 (45 minutes)

**Presenter:** Prof. MONNEY, Claude (University of Fribourg)

Contribution ID: 67 Type: not specified

### Superconductivity in layered materials

Thursday, 10 August 2023 17:30 (45 minutes)

**Presenter:** RAMIRES, Aline

Contribution ID: 68 Type: not specified

### Transport and thermodynamic studies of microstructures quantum materials

Friday, 11 August 2023 09:00 (45 minutes)

**Presenter:** MACKENZIE, Andrew

Contribution ID: 69 Type: not specified

# STM spectroscopy of monolayer chalcogenide and dichalcogenide films: superconductors and quantum spin Hall systems

Friday, 11 August 2023 09:45 (45 minutes)

Presenter: MADHAVAN, Vidya

Contribution ID: 70 Type: not specified

#### van der Waals magnets: An ARPES perspective

Friday, 11 August 2023 11:00 (45 minutes)

van der Waals magnets: An ARP ···

Presenter: YI, Ming

Contribution ID: 71 Type: not specified

### **Closing of the Camp**

Friday, 11 August 2023 11:45 (15 minutes)

Presenter: KENZELMANN, Michel (PSI - Paul Scherrer Institut)