



30th International Conference on Low Temperature Physics

7-13 August 2025, Bilbao, Spain

Thursday, 7 August, Day 1

12h00	Arrival and registration
	Auditorium Level 4
14h15	Opening
	Award of Fritz London Memorial Prize
14h30	(14h30-15h15) Robert Hallock, <i>Helium: Thin Films and Solids</i>
15h15	(15h15-16h00) John Saunders, <i>Quantum Materials and Sensors into the Microkelvin Regime</i>
16h00	(16h00-16h45) Ali Yazdani, <i>Emergent quantum phenomena under the microscope</i>

16h45-17h15 Coffee break

17h15	Award of Simon Memorial Prize
	(17h15-18h00) Adiel Stern, <i>Fractional Quantum Hall States and Fractional Chern Insulators - A Unified View</i>
18h00	Award of Olli V. Lounasmaa Memorial Prize
	(18h00-18h45) Andrew N. Cleland, <i>Quantum acoustics: Manipulating individual phonons</i>

18h45-20h00 Welcome reception

Friday, 8 August, Day 2

	Auditorium level 4 (900)
	Plenary session 1
09h00	(09h00-09h45) Francesca Ferlaino, <i>Supersolids in Magnetic Gases: From Roton Softening to Quantum Vortices</i>
09h45	(09h45-10h30) Leticia Tarruell, <i>Probing supersolidity through excitations in a spin-orbit-coupled Bose-Einstein condensate</i>

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 1	
	Auditorium level 4	Luxua 1 level 3
11h00	(11h00-11h35) Tom Manovitz, <i>Quantum coarsening and criticality on a programmable quantum simulator</i>	(11h00-11h35) Amir Yacoby, <i>Local Probes of Spin Excitations in Quantum Matter</i>
11h35	(11h35-12h10) Mikko Möttönen, <i>Millikelvin electronics for quantum computing and sensing</i>	(11h35-12h10) Shahal Ilani, <i>The Quantum Twisting Microscope: Visualizing Waves in Quantum Matter</i>

12h10-12h15 Room change to parallel sessions

Friday, 8 August, Morning Parallel Sessions

Room 1B level 5 8.PS1.1 Superfluid helium-I	Luxua 1 level 3 8.PS1.2 Nickelates-I	Auditorium 8.PS1.3 UTe ₂ -I	Room 1A level 5 8.PS1.4 Strongly correlated magnets-I	Luxua 2 level 3 8.PS1.5 Topology in quantum materials-I	Room 2 level 5 8.PS1.6 Superconducting properties and devices	Room level 2 8.PS1.7 Electron interactions and quantum interference	Room 3 level 5 8.PS1.8 Superconducting quantum circuits-I	Room 4 level 5 8.PS1.9 Low temperature instrumentation & applications-I
(12h15-12h40). 8.PS1.1.1. Jere Mäkinen <i>Time crystal optomechanics</i>	(12h15-12h40) 8.PS1.2.1. J. Zhao <i>Superconductivity in pressurized trilayer nickelate single crystals</i>	(12h15-12h40) 8.PS1.3.1. JP Brison <i>Field and Pressure-induced Superconducting Phases in UTe₂</i>	(12h15-12h40) 8.PS1.4.1. F Assaad <i>Dimensional mismatch Kondo systems</i>	(12h15-12h40) 8.PS1.5.1. A Grushin <i>Enforcing topology in non-crystalline metals</i>	(12h15-12h40) 8.PS1.6.1. R Shaikhaidarov <i>Development of superconducting Bloch Transistor.</i>	(12h15-12h40) 8.PS1.7.1. M Hashisaka <i>Mach-Zehnder interference of fractionalized electron-spin excitations</i>	(12h15-12h40) 8.PS1.8.1. I Pop <i>Superconducting Qubits Resilient to Tesla-Scale Magnetic Fields</i>	(12h15-12h40) 8.PS1.9.1. S de Graaf <i>In-situ structural and chemical identification of material defects in superconducting quantum circuits at mK temperatures</i>
(12h40-12h55) 8.PS1.1.2 C Uriarte, <i>Quantum Turbulence in ⁴He Characterized by a Superconducting Levitator Probe</i>	(12h40-12h55) 8.PS1.2.2. S. Onari <i>Analysis of non-fermi-liquid transport phenomena in thin-film bilayer nickelate La₃Ni₂O₇</i>	(12h40-12h55) 8.PS1.3.2. Arthur Carlton-Jones <i>Microwave Electrodynamics and Low-Energy Excitations of Superconducting UTe₂</i>	(12h40-12h55) 8.PS1.4.2. K Povarov <i>Pressure-induced ordering in the gapped quantum magnet DTN</i>	(12h40-12h55) 8.PS1.5.2. L Luszynski <i>Effect of uniaxial stress on the magnetostriction of Weyl semimetal TaAs</i>	(12h40-12h55) 8.PS1.6.2. T Domanski <i>Non-equilibrium signatures of electron pairing in quantum dots coupled to superconductors</i>	(12h40-12h55) 8.PS1.7.2. V Kashcheyevs <i>Evidence of Coulomb liquid phase in a few-electron droplets</i>	(12h40-12h55) 8.PS1.8.2. H Bohuslavskyi <i>Superconducting-transistor technology based on CVD graphene: toward superconducting integrated circuits</i>	(12h40-12h55) 8.PS1.9.2. A Sharma <i>Cryogenic SPM tools for magnetic imaging: MFM and NV magnetometry</i>
(12h55-13h10) 8.PS1.1.3 D Schmoranzner, <i>Discrete dissipation events measured with Si microwires in pure superfluid ⁴He</i>	(12h55-13h10) 8.PS1.2.3. F-C. Zhang <i>Self-doped molecular Mott insulator for superconducting La₃Ni₂O₇</i>	(12h55-13h10) 8.PS1.3.3. T. Vasina <i>Identicality of the High-Field and High-Pressure Superconducting Phases in UTe₂</i>	(12h55-13h10) 8.PS1.4.3. K Panda <i>Raman spectroscopy of the magnetic coupling in Gd-i-MAX</i>	(12h55-13h10) 8.PS1.5.3. Y. Dagan <i>Enhanced Nonlinear Response by Manipulating the Dirac Point at the (111) LaTiO₃/SrTiO₃ Interface</i>	(12h55-13h10) 8.PS1.6.3. J. Shen <i>Evidence of p-wave Pairing in K₂Cr₃As₃ Superconductors from Phase-sensitive Measurement</i>	(12h55-13h20) 8.PS1.7.2. A Chubukov <i>Isospin orders and superconductivity in graphene multilayers</i>	(12h55-13h10) 8.PS1.8.3. E Mukhanova <i>1/f phase noise in traveling wave parametric amplifier</i>	(12h55-13h10) 8.PS1.9.3. A Noah <i>Nanoscale magnetic effects in the 2D magnet CrGeTe₃</i>
(13h10-13h25) 8.PS1.1.4 A Ghosh, <i>Wigner crystallization on curved surfaces: collapsing multielectron bubbles in liquid He⁴ and He³</i>	(13h10-13h25) 8.PS1.2.4 M. Naamneh <i>$\pi/4$ phase shift in the anisotropic magnetoresistance of infinite layer nickelates</i>	(13h10-13h25) 8.PS1.3.4 Suguru Hosoi <i>Presence/absence of point nodes revealed by thermal conductivity in UTe₂</i>		(13h10-13h25) 8.PS1.5.4. P Marra <i>Topological zero modes and bounded modes at smooth domain walls: exact solutions and dualities</i>	(13h10-13h25) 8.PS1.6.4 J Ortuzar <i>Revealing inter-band electron pairing in a superconductor with spin-orbit coupling</i>		(13h10-13h25) 8.PS1.8.4 Y-Ch Chang <i>Towards ultra strong-coupling quantum thermodynamics using a superconducting flux qubit</i>	(13h10-13h25) 8.PS1.9.4 Kamal Brahim: <i>Measurements into the Single Photon Regime in Ferroelectric Materials</i>

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 2	
	Auditorium level 4	Luxua 1 level 3
15h45	(15h45-16h20) Long Ju, <i>Fractional Quantum Anomalous Hall Effect and Chiral Superconductivity in Graphene</i>	(15h45-16h20) Vidya Madhavan, <i>Vector Magnetic Field Response of Superconductivity and Charge Density Wave in UTe₂</i>
16h20	(16h20-16h55) Chun Ning (Jeanie) Lau, <i>Quantum Geometry and Screening of Flat Band Superconductivity in Twisted Bilayer Graphene</i>	(16h20-16h55) Beena Kalisky, <i>Imaging Quantum Materials</i>

16h55-17h25 Coffee break

Friday, 8 August, Afternoon Parallel Sessions

Room 1B level 5 8.PS2.1. Superfluid ^3He	Room level 2 8.PS2.2. Quantum gases	Luxua 1 level 3 8.PS2.3 Iron based superconductors	Luxua 2 level 3 8.PS2.4. Thin films and interfaces-I	Auditorium 1 8.PS2.5. Correlations and graphene	Auditorium 2 8.PS2.6. Topology in Quantum Materials-II	Room 1A level 5 8.PS2.7. Superconductivity: spin-orbit coupling and diode effects	Room 2 level 5 8.PS2.8. Thermoelectric effect and heat transport	Room 3 level 5 8.PS2.9. Superconducting quantum circuits-II	Room 4 level 5 8.PS2.10. LT Detectors-I
(17h25-17h50). 8.PS2.1.1. Samuli Autti, <i>QUEST-DMC: Looking for Low Mass Dark Matter using Superfluid ^3He</i>	(17h25-17h50). 8.PS2.2.1. Yuki Kawaguchi, <i>Dynamics of one- dimensional spinless fermions coupled with dynamical axion fields</i>	(17h25-17h50). 8.PS2.3.1. M Allan <i>What limits the critical temperature for superconductivity in quantum materials?</i>	(17h25-17h50). 8.PS2.4.1. C-z Chang <i>Interface-Induced Superconductivity in Quantum Anomalous Hall Insulators</i>	(17h25-17h50). 8.PS2.5.1. E Zeldov <i>Thermodynamic quantum oscillations and band reconstruction in strongly correlated moiré systems</i>	(17h25-17h50). 8.PS2.6.1. J Haruyama <i>Pseudo Tunnel Magnetoresistance Behaviours in Large- twist van der Waals Integration of Thin Magnetic Layers Fe_3GeTe_2</i>	(17h25-17h50). 8.PS2.7.1. N. Pascual <i>A nanoscale Cooper pair tunneling diode</i>	(17h25-17h50). 8.PS2.8.1. I Maasilta <i>Low-temperature heat transfer across vacuum via acoustic phonon tunneling</i>	(17h25-17h50). 8.PS2.9.1. N Roch <i>Josephson meta- materials: a new platform for quantum optics</i>	(17h25-17h50). 8.PS2.10.1. S. Grohmann <i>Gravitational-wave detectors cooled with superfluid helium – GRAVITHELIUM</i>
(17h50-18h05) 8.PS2.1.2 JW Scott, <i>Modelling the influence of structural anisotropy on superfluid helium- 3 in aerogel</i>	(17h50-18h05) 8.PS2.2.2. A Tononi, <i>Dimer problem on a spherical surface</i>	(17h50-18h05) 8.PS2.3.2. Y Liu <i>Pair density wave and modulation state in a monolayer high- T_c iron-based superconductor</i>	(17h50-18h05) 8.PS2.4.2. N. Kang <i>Observation of a twofold anisotropy in ultrathin Mo_2C superconducting crystals</i>	(17h50-18h05) 8.PS2.5.2. RL Lee <i>Charge Sensing of Fractional Quantum Hall States in Graphene</i>	(17h50-18h05) 8.PS2.6.2. Y Nagai <i>Self-Learning Monte Carlo Method with Equivariant Transformer</i>	(17h50-18h05) 8.PS2.7.2. M Eto <i>Enhanced Superconducting Diode Effect Utilizing Quantum Dot</i>	(17h50-18h05) 8.PS2.8.2. T Yamamoto <i>Quantum heat transport across a Josephson junction</i>	(17h50-18h05) 8.PS2.9.2. Z Peng <i>Experimental realization of on-chip few-photon control around exceptional points</i>	(17h50-18h05) 8.PS2.10.2. D Helis <i>A Superconducting Qubit as an Underground Particle Detector</i>
(18h05-18h20) 8.PS2.1.3 J Knapp <i>Evidence for Many Body Localization of ^3He atoms in two dimensions</i>	(18h05-18h20) 8.PS2.2.3. Adolfo del Campo, <i>Universal Vortex Statistics and Stochastic Geometry of Bose-Einstein Condensation</i>	(18h05-18h20) 8.PS2.3.3. MK Wu <i>Correlation between Fe-vacancy and superconductivity in $\text{K}_2\text{Fe}_{4+x}\text{Se}_5$ crystals</i>	(18h05-18h20) 8.PS2.4.3. J Zhang <i>Stacking-selective self-intercalation in $\text{Nb}_{1+x}\text{Se}_2$</i>	(18h05-18h20) 8.PS2.5.3. K Nakazawa <i>Theory of nonlinear Shubnikov-de Haas effect.</i>	(18h05-18h30) 8.PS2.6.3. C Rogero <i>Epitaxial Van der Waals Heterostructures with Magnetic Transition Metal Dihalides as a Universal Platform for Investigation of the Quantum Effects</i>	(18h05-18h30) 8.PS2.7.3. I Tokatly <i>Effective field theory for coupled charge and spin transport in mesoscopic superconductors</i>	(18h05-18h20) 8.PS2.8.3. Tokura <i>Quantum Heat Transport across Capacitively Coupled Quantum Dots</i>	(18h05-18h20) 8.PS2.9.3. A Parra-Rodríguez <i>Exact and dispersive models for superconducting networks</i>	(18h05-18h20) 8.PS2.10.3. Addabbo <i>The monolithic arrays of the BULKID-DM Kinetic Inductance Detectors searching for light Dark Matter</i>
(18h20-18h45) 8.PS2.1.4 A Vorontsov <i>Modeling superfluid He-3 in anisotropic aerogel</i>	(18h20-18h45) 8.PS2.2.4. Fernando Sols <i>Superfluidity from correlations in driven boson systems</i>	(18h20-18h45) 8.PS2.3.4. HH Wen <i>Small Fermi energy and unique vortex bound states in iron- based superconductors</i>	(18h20-18h45) 8.PS2.4.4. Thilo Bauch <i>Quasiparticle Spectroscopy using a YBCO Transmon</i>	(18h20-18h45) 8.PS2.5.4. V. Geshkenbein <i>Abrikosov vortices switching Josephson current in magic angle graphene</i>	(18h30-18h55) 8.PS2.6.4. Chuan Li <i>Multi-channel second-order topological states in $\text{Bi}_{0.97}\text{Sb}_{0.03}$</i>	(18h30-18h55) 8.PS2.7.4. D Kochan <i>Magnetoelectric phenomena of non- centrosymmetric superconductors – supercurrent diode effect and anisotropic vortex squeezing</i>	(18h20-18h45) 8.PS2.8.4. E Lee <i>Joule spectroscopy and thermal effects in hybrid superconductor- semiconductor nanodevices</i>	(18h20-18h45) 8.PS2.9.4. Ma Randeria <i>Decoherence in fluxonium: a case study in superconducting qubit design</i>	(18h20-18h45) 8.PS2.10.4. S. Fu <i>Recent results from CUORE and path towards CUPID</i>
(18h45-19h00) 8.PS2.1.5 A Lopez-Eiguren <i>Numerical simulations of superfluid ^3He</i>	(18h45-19h00) 8.PS2.2.5 Jacques Tempere, <i>Polarons as probes of superfluid and supersolid phases in quantum gases</i>	(18h45-19h10) 8.PS2.3.5. S Mandal <i>The Interplay of Electron Correlation, Electron-Phonon Coupling, and non trivial topology for Enhancing Superconductivity in $\text{FeSe}/\text{SrTiO}_3$</i>	(18h45-19h10) 8.PS2.4.5. A di Bernardo <i>Gate control of supercurrents: from earlier evidence to technological applications</i>	(18h45-19h10) 8.PS2.5.5. Cory Dean <i>Studies of electron viscosity in graphene - quantitative measurement from magnetoconductanc e in Corbino</i>		(18h55-19h20) 8.PS2.7.5. S Matsuo <i>Superconducting diode effect in coherently coupled Josephson junctions</i>		(18h45-19h10) 8.PS2.9.5. Y Zhong <i>Low-loss interconnects for modular superconducting quantum processors and beyond</i>	(18h45-19h00) 8.PS2.10.5. S. Quitadamo. <i>First detection of marine microseismic activity with the CUORE ton-scale milliKelvin macro- calorimeters array</i>

Saturday, 9 August

	Auditorium level 4 (900)
	Plenary session 1
09h00	(09h00-09h45) Lieven Vandersypen, <i>Quantum computation and simulation with electrons</i>
09h45	(09h45-10h30) Andrea Young,

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 3	
	Auditorium level 4	Luxua 1 level 3
11h00	(11h00-11h35) Petri J. Heikkinen, <i>QUEST-DMC: The first-order phase transition in superfluid helium-3</i>	(11h00-11h35) J.C. Seamus Davis, <i>Imaging Superconductive Topological Surface Band and Spin Triplet Order Parameter of UTe₂</i>
11h35	(11h35-12h10) Wei Guo, <i>Recent progress in probing vortex dynamics and developing quantum information platforms</i>	(11h35-12h10) Peter Hirschfeld, <i>Overdoped cuprates: disorder, inhomogeneity, Homes scaling and all that</i>

12h10-12h15 Room change to parallel sessions

Saturday, 9 August, Morning Parallel Sessions

Room 1B level 5 9.PS3.1. Superfluid Helium-II	Luxua 1 level 3 9.PS3.2. Superc. non-equilibrium and fluctuations	Auditorium level 4 9.PS3.3. Cuprates I	Luxua 2 level 3 9.PS3.4. Transport in topological materials	Room 1A level 5 9.PS3.5. Correlated materials-I	Room 2 level 5 9.PS3.6. Quantum Hall	Room 3 level 5 9.PS3.7. Quantum Transport-I	Room 4 level 5 9.PS3.8. Novel and hybrid quantum platforms-I	Room level 2 9.PS3.9. Superconducting devices
(12h15-12h40) 9.PS3.1.1. Jack Harris <i>New results on magnetically levitated drops of superfluid helium</i>	(12h15-12h40) 9.PS3.2.1. P Armitage <i>Energy relaxation and dynamics in strongly correlated materials</i>	(12h15-12h40) 9.PS3.3.1. Y. Peng <i>Electron-Phonon Coupling and Superconducting Gap Symmetry in High-Tc Cuprates</i>	(12h15-12h40) 9.PS3.4.1. J. Villegas	(12h15-12h40) 9.PS3.5.1. V Taufour <i>Giant field induced unconventional anomalous Hall conductivity in the non-centrosymmetric Weyl metal CeCoGe₃</i>	(12h15-12h40) 9.PS3.6.1. F Pierre <i>Observation of the scaling dimension of fractional quantum Hall anyons</i>	(12h15-12h40) 9.PS3.7.1. Tingxin Li <i>Fractional quantum anomalous Hall effect and competing quantum phases in twisted MoTe₂</i>	(12h15-12h40) 9.PS3.8.1. Erika Kawakami <i>Floating Electrons Coupled to Resonators</i>	(12h15-12h40) 9.PS3.9.1. N. Paradiso <i>2D arrays of $\phi 0$-Josephson junctions</i>
(12h40-13h05) 9.PS3.1.2. D.E. Zmeev <i>Superflow on the scale of a coherence length</i>	(12h40-13h05) 9.PS3.2.2. P.W. Phillips <i>Solving the Mott Problem</i>	(12h40-13h05) 9.PS3.3.2. J. Tallon <i>Questioning the cuprate paradigm - absence of superfluid density loss in overdoped cuprates</i>	(12h40-12h55) 9.PS3.4.2. Y Aoki <i>Search for Symmetry-Enforced Dirac Points via Magnetoresistance Quantum Oscillations in Non-Symmorphic Type-I Superconductor beta-IrSn₄</i>	(12h40-12h55) 9.PS3.5.2. E Maniv <i>Dark Metastable Conduction Channels near a Metal-Insulator Transition</i>	(12h40-12h55) 9.PS3.6.2. O Maillet <i>Charge equilibration in counter-propagating quantum Hall channels coupled via Landauer reservoirs</i>	(12h40-12h55) 9.PS3.7.2. A Braggio <i>Thermoelectric detection in hybrid and quantum nanodevices</i>	(12h40-12h55) 9.PS3.8.2. Natalia Morais <i>Rydberg Tomography of Electrons on Helium in a Linear Microtrap</i>	(12h40-12h55) 9.PS3.9.2. Xiaoying Xu <i>Signature of chiral superconductivity evidenced in mesoscopic superconductors</i>
(13h05-13h30) 9.PS3.1.3. Y Sasaki <i>Macroscopic Orbital Supercurrent along the Edge of Chiral Domain in Chiral Superfluid ³He</i>	(13h05-13h20) 9.PS3.2.3. J. Luo <i>Unconventional coherence peak in cuprate superconductors</i>	(13h05-13h20) 9.PS3.3.3. C-H. Chung <i>A mechanism for quantum-critical Planckian metal phase in high-temperature cuprate superconductors</i>	(12h55-13h10) 9.PS3.7.1. T. Singar <i>Lifshitz transition observed through vortex core spectroscopy in Bi-2212 superconductor</i>	(12h55-13h10) 9.PS3.5.3. L Hao <i>Atomically controlled insulator-to-metal transition in strongly correlated iridate/manganite heterostructures</i>	(12h55-13h10) 9.PS3.6.3. Ky. Kim <i>Fractional Quantum Hall Levitons</i>	(12h55-13h10) 9.PS3.7.3. T. Kato <i>Microscopic Theory of Spin Current Generation by Chiral Phonons</i>	(12h55-13h10) 9.PS3.8.3. M Freeman <i>Progress Towards a Low Temperature Superfluid 4He Josephson Junction using 2D Nanoporous Materials</i>	(12h55-13h10) 9.PS3.9.3. A Mozes <i>Microwave assisted scanning tunneling microscopy to probe local complex impedance of unconventional superconductors</i>
			(13h10-13h25) 9.PS3.4.4. Lev V Levitin <i>Identification of topological superconductivity in YbRh₂Si₂</i>	(13h10-13h25) 9.PS3.5.4. M. Zhu <i>Continuum excitations in a triangular-lattice spin supersolid</i>	(13h10-13h25) 9.PS3.6.4. P Rout <i>Induced Superconductivity in Topological Phase of ZrTe₅</i>	(13h10-13h25) 9.PS3.7.4. Camryn Undershute <i>Decoherence of Surface Phonons in a Quantum Acoustic System</i>		

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 4	
	Auditorium level 4	Luxua 1 level 3
15h45	(15h45-16h20) William Oliver, <i>Emulating the Bose-Hubbard Model with Arrays of Superconducting Qubits</i>	(15h45-16h20) Erez Berg, <i>Exotic Superconductivity in Graphene Multilayers</i>
16h20	(16h20-16h55) Daniel Loss, <i>Spin Qubits in Semiconductors for Scalable Quantum Computers</i>	(16h20-16h55) Roser Valenti, <i>The revival of Fe-based superconductors: cascades of screening processes and their implications</i>

16h55-17h25 Coffee

Saturday, 9 August, Afternoon Parallel Sessions

Room level 2 9.PS4.1. Theory and other condensates	Room 1B level 5 9.PS4.2. Quantum turbulence-I	Audit 1 level 4 9.PS4.3. Graphene and twisted systems-I	Audit 2 lev. 4 9.PS4.4. UTe ₂ -II	Luxua 1 level 3 9.PS4.5. Spin chains and chiral magnets	Luxua 2 level 3 9.PS4.6. Spin Ice and magnetic textures	Room 1A level 5 9.PS4.7. Graphene	Room 2 level 5 9.PS4.8. Josephson Physics-I	Room 3 level 5 9.PS4.9. Superconducting quantum circuits- III	Room 4 level 5 9.PS4.10. LT instrumentation and applications-II
(17h25-17h50). 9.PS4.1.1. Jordi Boronat, <i>Self-bound clusters of ultracold polar molecules</i>	(17h25-17h50). 9.PS4.2.1. L Galantucci <i>Quantum vortices leave a macroscopic signature in the thermal background</i>	(17h25-17h50). 9.PS4.3.1. E Bascones <i>Heavy fermions and cascades in twisted bilayer graphene: new results</i>	(17h25-17h50). 9.PS4.4.1. JP Paglione <i>Key issues in understanding the superconductivity of UTe₂</i>	(17h25-17h50). 9.PS4.5.1. N Lorente <i>Topological Character of Cr Spin Chains on Bi₂Pd</i>	(17h25-17h50). 9.PS4.6.1. S Raymond <i>Uncommon magnetic order in the hyperkagome system Yb₃Ga₅O₁₂</i>	(17h25-17h50). 9.PS4.7.1. Chunli Huang <i>Momentum-Space AC Josephson Effect and Intervalley Coherence in Multilayer Graphene</i>	(17h25-17h50). 9.PS4.8.1. M Houzet <i>Josephson quantum mechanics at odd parity</i>	(17h25-17h50). 9.PS4.9.1. Angela Kou <i>Using disordered superconductors to build qubits</i>	(17h25-17h50). 9.PS4.10.1. DH Nguyen <i>Advancing sensitive measurement techniques for the study of quantum materials at ultralow temperatures</i>
(17h50-18h05) 9.PS4.1.2. Alberto Villois <i>Breakdown of Superfluidity in Two-Dimensional Dipolar Bose- Einstein Condensates</i>	(17h50-18h15) 9.PS4.2.2. Andrei Golov. <i>Quantum Turbulence Sampled by 1-6 µm Particles Down to the T = 0 Limit</i>	(17h50-18h05) 9.PS4.3.2. D. Zhang <i>DC and AC Josephson effects in twisted cuprate bicrystals</i>	(17h50-18h05) 9.PS4.4.2. A. Kreisel <i>Detecting the nodal superconducting gap structure and topological surface states of UTe₂ with QPI</i>	(17h50-18h05) 9.PS4.5.2. Y Masaki <i>Phase Transitions in Quantum Monoaxial Chiral Magnets under Tilted Magnetic Fields</i>	(17h50-18h05) 9.PS4.6.2. M Gomilsek <i>Anisotropic Spin Dynamics in Centrosymmetric Skyrmion Host Gd₂PdSi₃</i>	(17h50-18h05) 9.PS4.7.2. JV Bustamante <i>Experimental signatures of quasi-Brillouin zones in doubly aligned BN/graphene/BN heterostructures</i>	(17h50-18h05) 9.PS4.8.2. FJ Matute <i>Quantum circuits with multiterminal Josephson- Andreev junctions</i>	(17h50-18h05) 9.PS4.9.2. Xi Chen <i>Optimal Control and Shortcuts to Adiabaticity for Fast Qubit Readout in Circuit Quantum Electrodynamics</i>	(17h50-18h05) 9.PS4.10.2 Y. Fujii <i>Development of Simultaneous Detection Method of Millimeter-Wave Electron Spin Resonance and Electrically- Detected Magnetic Resonance Signals of Phosphorous- doped Si</i>
(18h05-18h20) 9.PS4.1.3. L. Melnikovski <i>Quantized Vortices in Multi- Component Superfluids</i>	(18h15-18h30) 9.PS4.2.3 Ken Obara <i>Superfluid Suction Vortex Generated by Fountain Effect</i>	(18h05-18h30) 9.PS4.3.3. N. Krane <i>Engineering and Exploring Spin Excitations and Correlations in Open-Shell Nanographene Systems</i>	(18h05-18h30) 9.PS4.4.3. B. Ramshaw <i>Searching for topological superconductivity in UTe₂ using ultrasound</i>	(18h05-18h20) 9.PS4.5.3. Hao Zheng <i>Spectroscopy on superconductor carrying a supercurrent</i>	(18h05-18h20) 9.PS4.6.3. F. Morineau <i>Satisfaction and violation of the fluctuation- dissipation relation in spin ice</i>	(18h05-18h20) 9.PS4.7.3. M Banerjee <i>Graphene antidot in quantum Hall states</i>	(18h05-18h20) 9.PS4.8.3. E Sonin <i>Theory of Planar Ballistic SNS Junctions at T = 0</i>	(18h05-18h30) 9.PS4.9.3. P Sethi <i>Scalable Fabrication of High-Performance Superconducting Qubits Using Native-Oxide Passivated Trilayer Junctions</i>	

Conference dinner at 20h00

Sunday, 10 August

	Auditorium level 4
	Plenary session 3
09h00	(09h00-09h45) Claudia Felser, <i>Chirality, Topology, and Spin-Orbit Interactions in Quantum Materials</i>
09h45	(09h45-10h30) Wolfgang Wernsdorfer, <i>Advancements in Cryogenics for Quantum Technologies: Scaling the Cold Frontier</i>

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 5	
	Auditorium level 4	Luxua 1 level 3
11h00	(11h00-11h35) Jagadeesh Moodera, <i>Superconductors with Broken Symmetry: Majorana Bound States and Nonreciprocal Current Flow Phenomena in Superconductor-Ferromagnet Proximity Coupled Systems for Collective Quantum Technology</i>	(11h00-11h35) Natalia Ares, <i>Machine learning-based control and characterisation of quantum devices</i>
11h35	(11h35-12h10) Stuart Parkin, <i>Magnetic Tunnel Junctions and Josephson junctions using 2D van der Waals layers</i>	(11h35-12h10) Meng Wang, <i>High-temperature superconductivity in the Ruddlesden-Popper phase of nickelates</i>
12h10	(12h10-12h45) Seigo Tarucha, <i>High-Fidelity Qubit Gates and Phase Noise in Silicon Multi-qubit Devices</i>	(12h10-12h45) Elena Hassinger, <i>Mysteries of the two-phase superconductor CeRh₂As₂</i>
12h45	(12h45-13h20) Jukka P. Pekola, <i>Superconducting circuits as a platform for quantum thermodynamics experiments</i>	(12h45-13h20) Maia G. Vergniory, <i>The topological revival of Fe-based superconductors</i>

No lunch box will be offered this day. Time for networking, see also [recommended excursions](#).

Monday, 11 August

	Auditorium level 4
	Plenary session 4
09h00	(09h00-09h45) Päivi Törmä, <i>Quantum Geometry and Superconductivity</i>
09h45	(09h45-10h30) Dai Aoki, <i>Spin-Triplet Superconductivity under Extreme Conditions in UTe₂</i>

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 6	
	Auditorium level 4	Luxua 1 level 3
11h00	(11h00-11h35) Benjamin Sacépé, <i>Chiral supercurrent in quantum Hall Josephson junctions</i>	(11h00-11h35) Jiangping Hu, <i>Loop Current Order in Strongly Correlated Systems</i>
11h35	(11h35-12h10) Klaus Ensslin, <i>Graphene quantum devices</i>	(11h35-12h10) Naoto Nagaosa, <i>Nonreciprocal transport and diode effect in superconductors</i>

12h10-12h15 Room change to parallel sessions

Monday, 11 August, Morning Parallel Sessions

Room 1A level 5 11.PS5.1 He nanomechanics	Auditorium level 4 11.PS5.2 Topological superconductivity-I	Luxua 1 level 3 11.PS5.3 Superconductivity and magnetism (COST superqumap.eu)	Luxua 2 level 3 11.PS5.4 Magnons and superconductivity	Room 1B level 5 11.PS5.5 Magnetism and Transport in Kagome Antiferromagnets	Room 2 level 5 11.PS5.6 2D and quasi-2D Materials	Room 3 level 5 11.PS5.7 Correlated and low dimensional systems	Room level 2 11.PS5.8 Novel and hybrid platforms-II	Room 4 level 5 11.PS5.9 Thermometry and refrigeration techniques- I
(12h15-12h40). 11.PS5.1.1. V. Tsepelin, <i>Interaction of NEMS with a Quantum Vortex in Superfluid-4</i>	(12h15-12h40). 11.PS5.2.1. Y Tanaka <i>Theory of full counting statistics in unconventional superconductor junctions</i>	(12h15-12h40). 11.PS5.3.1. P. Samuely <i>Ising superconductivity in bulk 4H_a-NbSe₂</i>	(12h15-12h40). 11.PS5.4.1. MJ Martínez <i>From Cavity - QED to Van der Waals – QED: magnons instead of photons</i>	(12h15-12h40). 11.PS5.5.1. S Suetsugu <i>Gapless spin excitations and gapped magnetization plateau phases in a spin-1/2 perfect kagome antiferromagnet</i>	(12h15-12h40). 11.PS5.6.1. H Bouchiat <i>Probing orbital currents in 2D materials</i>	(12h15-12h40). 11.PS5.7.1. A.A. Aligia <i>Topological quantum phase transition transition to a “non-Landau” Fermi liquid in a two-channel spin-1 anisotropic Kondo model and its experimental relevance</i>	(12h15-12h40). 11.PS5.8.1 M Urdampilleta <i>A foundry-fabricated spin qubit unit-cell with in-situ dispersive readout</i>	(12h15-12h40). 11.PS5.9.1. Ch Dimas <i>Thermal Spectrometer for Superconducting Circuits</i>
(12h40-12h55) 11.PS5.1.2. Riku Rantanen, <i>Engineering topology in a superfluid through nanoscale confinement</i>	(12h40-12h55) 11.PS5.2.2. H. Takahashi <i>Pressure-Induced Structural Anomaly in the Dirac Line-Nodal Material CaSb₂</i>	(12h40-12h55) 11.PS5.3.2. J. Custers <i>Evidence for Coexistence of Magnetism and Superconductivity in Ce₃PtIn₁₁</i>	(12h40-12h55) 11.PS5.4.2. S Catalano <i>EuS Interfaces for Low Temperature Spintronics</i>	(12h40-12h55) 11.PS5.5.2. Z Zhu <i>Field-linear anomalous Hall effect, magnetostriiction, piezomagnetism and domain nucleation in a kagome antiferromagnet Mn₃Sn</i>	(12h40-12h55) 11.PS5.6.2. Ch Zhou <i>Mapping the Mott and Generalized Wigner Crystal States in Twisted Bilayer MoS₂ by Quantum Well Resonant Tunneling Spectroscopy</i>	(12h40-12h55) 11.PS5.7.2. T Novotny <i>Double quantum dot Andreev molecules: numerical phase diagrams, critical evaluation of effective models, and identification of microscopic mechanisms</i>	(12h40-12h55) 11.PS5.8.2 Federico Fedele <i>Spin mechanical coupling and self-oscillations in a carbon nanotube electromechanical resonator</i>	(12h40-12h55) 11.PS5.9.2. J Hätinén <i>Nb-based tunnel junction refrigerators</i>
(12h55-13h20) 11.PS5.1.3. Oleg Kirichek <i>⁴He and ³He – ⁴He mixture films studied by neutron reflectometry</i>	(12h55-13h10) 11.PS5.2.3. N. Poniatowski <i>Detecting induced unconventional superconductivity with cQED</i>	(12h55-13h10) 11.PS5.3.3. P. Szabó <i>Disorder- and magnetic field-tuned fermionic superconductor-insulator transition in MoN thin films. Transport and STM studies.</i>	(12h55-13h10) 11.PS5.4.3. L Hao <i>Atomically controlled insulator-to-metal transition in strongly correlated iridate/manganite heterostructures</i>	(12h55-13h10) 11.PS5.5.3. ZA Xu <i>Giant Anomalous Hall Effect in Kagome Nodal Surface Semimetal Fe₃Ge</i>	(12h55-13h10) 11.PS5.6.3. E Henriquez <i>Biaxial Compressive Strain Tuning of Quantum Properties in 2D Materials</i>	(12h55-13h10) 11.PS5.7.3. JM Torres <i>K-P model for moiré exciton trapping and polarization</i>	(12h55-13h10) 11.PS5.8.3 Claudio Bonizzoni <i>Perfect Absorption of Single-Photons for Quantum Technologies</i>	(12h55-13h10) 11.PS5.9.3. D Lvov <i>Thermometry Based on a Superconducting Qubit</i>
	(13h10-13h25) 11.PS5.2.4. R. Okugawa <i>Gapless topological superconducting phases in two-dimensional quasicrystals</i>	(13h10-13h25) 11.PS5.3.4. V. Fomin <i>Superconductor 3D Nanoarchitectures: A Playground for Novel Quantum Phenomena</i>	(13h10-13h25) 11.PS5.4.4. A Badreldin <i>A 200-mm Superconducting Platform for the Microwave Characterization of Magnetic Materials at Low Temperature</i>	(13h10-13h25) 11.PS5.5.4. M Kato <i>Magnetism of novel kapellasite-type kagome antiferromagnet InCu₃(OH)6Cl₃</i>	(13h10-13h25) 11.PS5.6.4. MR Calvo <i>Strain Engineering of Magnetoresistance and Magnetic Anisotropy in CrSBr</i>	(13h10-13h25) 11.PS5.7.4. KI Wysokinski <i>Hubbard and correlated-hopping interactions in a quantum dot coupled to four or two terminals: non-linear transport coefficients and rectification of charge and heat currents.</i>	(13h10-13h25) 11.PS5.8.4 Carolina Del Río <i>Remote polariton-polariton interactions mediated by superconducting circuits for quantum applications</i>	(13h10-13h25) 11.PS5.9.4. L Wang <i>Normal metal Coulomb Blockade Thermometer below 10 mK</i>

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 2	
	Auditorium level 4	Luxua 1 level 3
15h45	(15h45-16h20) Eun-Ah Kim,	(15h45-16h20) Sebastian Will, <i>Molecular Quantum Liquids</i>
16h20	(16h20-16h55) Paul C. Canfield, <i>Collapsed tetragonal phase transitions as canaries</i>	(16h20-16h55) Dafei Jin, <i>Noise-resilient solid host for electron qubits above 100 mK</i>

16h55-17h25 Coffee

Monday, 11 August, Afternoon Parallel Sessions

Room 1A level 5 11.PS6.1 Superfluid Helium-III	Auditorium1 level 4 11.PS6.2 Nickelate, Kagome and other topical superconductors	Auditorium2 level 4 11.PS6.3 Collective modes and Quantum criticality	Luxua1 level 5 11.PS6.4 Vortex lattices and nanostructures (COST superqumap.eu)	Luxua2 level 5 11.PS6.5 Correlated materials- II	Room 1B level 5 11.PS6.6 Frustrated Magnetism and Exotic Spin States	Room 2 level 5 11.PS6.7 Quantum Transport-II	Room 3 level 5 11.PS6.8 Superconducting devices/van der Waals materials	Room level 2 11.PS6.9 QC with semiconductor circuits	Room 4 level 5 11.PS6.10 Thermometry and refrigeration techniques-II
(17h25-17h50). 11.PS6.1.1. W Halperin <i>Magnetic susceptibility enhancement of superfluid ³He-B in anisotropic confinement</i>	(17h25-17h50). 11.PS6.2.1. D Feng <i>Electronic, magnetic and optical properties of the nickelate superconductors.</i>	(17h25-17h50). 11.PS6.3.1. Mo Randeria <i>Andreev versus Tunneling Spectroscopy in Unconventional Flat Band Superconductors</i>	(17h25-17h50). 11.PS6.4.1. G. Pasquini <i>Exploring the interplay between nematicity and superconductivity</i>	(17h25-17h50). 11.PS6.5.1. P Giraldo <i>Fermiology of the charge density wave compound TaTe₂ and its signatures of non- trivial topological states</i>	(17h25-17h50). 11.PS6.6.1. J Nagl <i>Ground-State Selection and Braided Ising Spin- Tubes in a new Family of Breathing Kagome Magnets</i>	(17h25-17h50). 11.PS6.7.1. R López <i>Quantum Kinetic Uncertainty Relations in Mesoscopic Conductors at Strong Coupling</i>	(17h25-17h50). 11.PS6.8.1. P Burset <i>Single-Electron Charge Pulses in Superconducting Devices</i>	(17h25-17h50). 11.PS6.9.1. G Burkard <i>The singlet-triplet and exchange-only flopping-mode spin qubits</i>	(17h25-17h50). 11.PS6.10.1. H Fukuyama <i>The Continuous Sub- millikelvin Refrigerator</i>
(17h50-18h15) 11.PS6.1.2. Priya Sharma <i>Towards a micromechanical qubit based on quantized oscillations in superfluid helium</i>	(17h50-18h05) 11.PS6.2.2. Q. Niu <i>Nematicity and orbital current order probed by transverse resistivity in Kagome metal thin flakes</i>	(17h50-18h05) 11.PS6.3.2. H. Watanabe <i>Theory of BCS-BEC Crossover in Strongly Correlated Electron Systems</i>	(17h50-18h05) 11.PS6.4.2. A. Palau <i>Field-Induced Phase Transitions in Cuprate Superconductors for Cryogenic in-Memory Computing</i>	(17h50-18h05) 11.PS6.5.2. S Mishra <i>Simultaneous optical and thermodynamic investigation of Ca₃Ru₂O₇</i>	(17h50-18h05) 11.PS6.6.2. K Aoyama <i>Asymmetric spin- wave dispersion in a triple-Q chiral state of a breathing-kagome antiferromagnet</i>	(17h50-18h05) 11.PS6.7.2 <u>Yu. Makhlin</u> <i><u>Planar topological- insulator based Josephson junctions and Majorana zero modes</u></i>	(17h50-18h05) 11.PS6.8.2. M Moskalets <i>An e-h superposition created on demand</i>	(17h50-18h05) 11.PS6.9.2. I Fernández de Fuentes <i>Running a six-qubit algorithm on a silicon spin qubit array</i>	(17h50-18h05) 11.PS6.10.2. Y Shimura <i>Application of Adiabatic Demagnetization Refrigeration by Enlarged YbCu₂Ni Alloy under Sub- Kelvin Temperature Region</i>
(18h15-18h40) 11.PS6.1.3. X Rojas <i>Novel platforms for superfluid optomechanics</i>	(18h05-18h20) 11.PS6.2.3. X. Feng <i>Rotational symmetry breaking within the fully-gapped superconducting state in kagome metal CsV₃Sb₅</i>	(18h05-18h20) 11.PS6.3.3. S. Trivini <i>Role of Superconductor/grap hene interface conductance in proximity effect</i>	(18h05-18h20) 11.PS6.4.3. W. Lang <i>Tailoring Vortex Behavior in High-Tc Superconductors via Periodic Defects Created by Focused Helium Ion Beams</i>	(18h05-18h20) 11.PS6.5.3. T. Mito <i>Origin of Low- Temperature Magnetic Fluctuations in Kondo Insulator SmB₆ studied by 10B- and 11B-NMR measurements</i>	(18h05-18h20) 11.PS6.6.3. SA Zvyagin <i>High-field magnetic properties of the alternating ferro- antiferromagnetic spin-1/2 chain compound Cu₂(OH)3Br</i>	(18h05-18h20) 11.PS6.7.3. L Magazzu <i>Thermal rectification in a qubit-oscillator system</i>	(18h05-18h20) 11.PS6.8.3. M Ilyn <i>Epitaxial Van der Waals Heterostructures Magnetic Transition Metal Dihalides / Superconductor 2H- NbSe₂</i>	(18h05-18h20) 11.PS6.9.3. K Castoria <i>Single Surface- Electron Sensing and CMOS Control Above 1 Kelvin</i>	(18h05-18h20) 11.PS6.10.3. J. Kölling <i>Accelerating cryogenic testing and characterization of quantum materials and devices with novel ADR cryostats</i>
(18h40-19h05) 11.PS6.1.4 P Stasiak <i>Experimental and theoretical evidence of universality in vortex reconnections</i>	(18h20-18h45) 11.PS6.2.4 K. Jiang <i>Bound states in doped charge transfer insulators</i>	(18h20-18h45) 11.PS6.3.4 D. Manske <i>Higgs Spectroscopy of Superconductors</i>	(18h20-18h45) 11.PS6.4.4 M Milosevic <i>Advances in multiphysics simulations of superconducting electronics</i>	(18h20-18h45) 11.PS6.5.4 Y. Fasano <i>How do atomic defects alter the electronic properties of Fe-based superconductors?</i>	(18h20-18h45) 11.PS6.6.4 YB Kim <i>Fractionalized excitations and emergent photons in dipolar-octupolar quantum spin ice</i>	(18h20-18h45) 11.PS6.7.4 R Seoane <i>Towards Ideal Supercurrent Rectification in Josephson Junctions</i>	(18h20-18h45) 11.PS6.8.4 G Chen <i>Correlated and topological states in ABC-stacking multilayer graphene</i>	(18h20-18h45) 11.PS6.9.4 F Gonzalez Zalba <i>A quantum processor based on silicon spin qubits</i>	(18h20-18h45) 11.PS6.10.4 M Klinger <i>Frustrated magnets for milli-Kelvin refrigeration</i>
	(18h45-19h00) 11.PS6.2.5. M Isobe <i>Crystal Growth of Nickelates for Potential High-Tc Superconductors</i>	(18h45-19h10) 11.PS5.3.5. F Massee <i>Hund's assisted quantum phase transition in Fe(Se,Te)</i>	(18h45-19h10) 11.PS6.4.5. D. Popovic <i>Persistence of Vortexlike Phase Fluctuations in Underdoped to Heavily Overdoped Bi-2201 Cuprates</i>	(18h45-19h10) 11.PS6.5.5. A McCollam <i>Fermi surface reconstruction and non-Fermi liquid behavior near the ferromagnetic quantum phase transition in Fe(Ga1- xGex)3</i>	(18h45-19h00) 11.PS6.6.5. SD Nabi <i>Magnetic phase diagram and model Hamiltonian of Cs2RuO4</i>	(18h45-19h10) 11.PS6.7.4 K-H Chiang <i>Dual-qubit heat valve: an experimental study on collective quantum heat transport</i>	(18h45-19h10) 11.PS6.8.5. Wei Li <i>Interplay between Stripe-like Charge orders, Electronic Correlation and Majorana Bound States in 2M-WS₂</i>	(18h45-19h00) 11.PS6.9.5. Elizaveta Morozova <i>Onset of a quantum phase transition in a germanium quantum dot ladder</i>	(18h45-19h10) 11.PS6.10.5. D Szweczyk <i>Heat Capacity Investigations of Benzene Derivatives: Exploring the Mechanism Behind Glassy Anomalies in Quasiplanar Molecular Crystals</i>

Tuesday, 12 August

	Auditorium level 4
	Plenary session 4
09h00	(09h00-09h45) Joseph Checkelsky, <i>Natural Superlattice Materials and Modulated Superconductivity</i>
09h45	(09h45-10h30) Xingjiang Zhou, <i>Laser ARPES on Pairing Symmetry and High-T_c Origin in High Temperature Superconductors</i>

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 6	
	Auditorium level 4	Luxua 1 level 3
11h00	(11h00-11h35) JP Davis, <i>Superfluid ³He Electromechanics</i>	(11h00-11h35) Ramón Aguado, <i>Novel qubits based on hybrid semiconductor-superconductor Josephson junctions</i>
11h35	(11h35-12h10) Yong-Hamb Kim, <i>Magnetic microcalorimeters for large-scale astroparticle physics applications</i>	(11h35-12h10) Christoph Strunk, <i>Berezinski-Kosterlitz-Thouless transition in strongly disordered NbN films close to the localization threshold</i>

12h10-12h15 Room change to parallel sessions

Tuesday, 12 August, Morning Parallel Sessions

Room 1A level 5 12.PS7.1. Quantum turbulence II	Auditorium level 3 12.PS7.2. Kagome SC	Luxua1 level 4 12.PS7.3. Thin film and interfaces-II (COST superqumap.eu)	Luxua2 level4 12.PS7.4. Correlated materials-III	Room 1B level 5 12.PS7.5. Strongly correlated magnets-II	Room 2 level 5 12.PS7.6. Quantum fluctuations and Thermal effects	Room 3 level 5 12.PS7.7. Josephson physics-II	Room level 2 12.PS7.8. Novel and hybrid platforms-III	Room 4 level 5 12.PS7.9. Thermometry and refrigeration techniques-III
(12h15-12h40). 12.PS7.1.1. Ryuji Nomura <i>Quantum Dripping of Superfluid Pendant Droplets</i>	(12h15-12h40). 12.PS7.2.1 R. Tazai Multi-stage Phase Transitions and Non-Reciprocal Transport in Kagome Superconductors AV ₃ Sb ₅	(12h15-12h40). 12.PS7.3.1 F Lombardi <i>Ground State Engineering in Ultrathin YBCO via Nanostructured Surfaces: Enhanced Superconductivity, Nematicity, and Unidirectional Charge Order</i>	(12h15-12h40). 12.PS7.4.1 M Menghini <i>Mott resistive switching in an antiferromagnetic insulator initiated by topological defects</i>	(12h15-12h40). 12.PS7.5.1 G Causser <i>One-dimensional magnetic soliton layers in a cubic chiral magnet</i>	(12h15-12h40). 12.PS7.6.1 Ma Naka <i>Spin-splitting and cross-correlation in altermagnets</i>	(12h15-12h40). 12.PS7.7.1 V Chandrasekhar <i>Searching for signatures of non-trivial topology in diffusive, multiterminal Josephson junctions</i>	(12h15-12h40). 11.PS7.8.1. G. Platero <i>Topological edge states for quantum information transfer</i>	(12h15-12h40). 12.PS7.9.1 J Huang <i>Development of a new magnetic refrigeration method for achieving low temperatures below one-Kelvin without using the helium-3</i>
(12h40-12h55) 12.PS7.1.2 H Takeuchi <i>Eccentric fractional skyrmions from quantum Kelvin-Helmholtz instability</i>	(12h40-12h55) 12.PS7.2.2 B.-C. Lin <i>Spin-polarized p-wave superconductivity in the kagome material RbV₃Sb₅</i>	(12h40-12h55) 12.PS7.3.2 Yufan Li <i>Determination of spin-triplet superconductivity with phase-sensitive experiments</i>	(12h40-12h55) 12.PS7.4.2 VF Mitrovic <i>Orbital glass conceals missing magnetic entropy in a relativistic Mott insulator</i>	(12h40-12h55) 12.PS7.5.2 G Kaur <i>Magnetoelastic dynamics in Spin-Jahn Teller driven antiferromagnet: CoTi₂O₅</i>	(12h40-12h55) 12.PS7.6.2 R Dolleman <i>Continuous sub-millikelvin cooling of nanoelectronic devices using a Wigner crystal</i>	(12h40-12h55) 12.PS7.7.2 M Ferrier <i>Supercurrent noise in a phase-biased superconductor - normal ring in thermal equilibrium</i>	(12h40-12h55) 11.PS7.8.2. Pomaransk David <i>Time-bin architecture for electronic qubits with quantum-Hall edge channels</i>	(12h40-12h55) 12.PS7.9.2 S Guo <i>Quantum Fluctuation enhanced Millikelvin Magnetic Refrigeration in Triangular Lattice Magnet</i>
(12h55-13h10) 12.PS7.1.3 Yosuke Minowa <i>Kelvin wave excitation on quantized vortices in superfluid helium</i>	(12h55-13h10) 12.PS7.2.3 S. Yonezawa <i>Field-angle-resolved calorimetry of the pristine and Nb-substituted CsV₃Sb₅ Kagome superconductors</i>	(12h55-13h10) 12.PS7.3.3 Che-H Ku <i>Point-contact Andreev-reflection spectroscopy of compressed superconducting thin flakes inside a diamond anvil cell</i>	(12h55-13h10) 12.PS7.4.3 C Lee <i>Odd-parity itinerant antiferromagnets by space group symmetry</i>	(12h55-13h10) 12.PS7.5.3 K. Fukui <i>Unveiling new magnetic phases in 3D extended Kitaev models</i>	(12h55-13h10) 12.PS7.6.3 A Delattre <i>Low temperature fluctuations of a mesoscopic mechanical mode</i>	(12h55-13h10) 12.PS7.7.3 JA Moreno <i>Feedback driven Josephson microscope</i>	(12h55-13h10) 11.PS7.8.3. Li Lu <i>Experimental exploration of the Fu-Kane scheme of topological quantum computation</i>	(12h55-13h10) 12.PS7.9.3 Clement Geffroy <i>An ultra-compact dilution refrigerator for rapid quantum device characterization and education</i>
(13h10-13h25) 12.PS7.1.4 Igor Todoshchenko, <i>Quantum fluctuations in helium adsorbed on nanotube</i>	(13h10-13h25) 12.PS7.2.4 H. Kontani <i>Unconventional density waves, exotic superconductivity and quantum criticality in kagome metals and bilayer nickelate superconductors</i>	(13h10-13h25) 12.PS7.3.4 K. Ienaga <i>Quantum and Thermal Fluctuations in Two-Dimensional Superconductors studied by the Nernst effect</i>	(13h10-13h25) 12.PS7.4.4 YM Xie <i>Photon-drag photovoltaic effects and quantum geometric nature</i>	(13h10-13h25) 12.PS7.5.4 S Gabani <i>Evidence for ferrons formation in the heavy fermion metal CeB₆ with dynamic charge stripes</i>	(13h10-13h25) 12.PS7.6.4 Zh. Hu <i>Local Characterization of Electric Field Induced Dielectric Constant Changes in (Ba,Sr)TiO₃ Detected by Microwave Impedance Microscopy</i>	(13h10-13h25) 12.PS7.7.4 Andrei Mazanik <i>Interfacial spin-orbit coupling in superconducting hybrid systems</i>	(13h10-13h25) 11.PS7.8.4. Giacomo Marmorini <i>Spiral quantum state tomography of quantum many-body states and entanglement measurement</i>	(13h10-13h25) 12.PS7.9.4 A Fefferman <i>Aluminum nuclear-demagnetization refrigerator for continuous cooling below 1 mK</i>

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 7	
	Auditorium level 4	Luxua 1 level 3
15h45	(15h45-16h20) Rebeca Ribeiro, <i>Impact of the angular alignment on the crystal field and intrinsic doping of bilayer graphene/BN heterostructures</i>	(15h45-16h20) Makoto Tsubota, <i>Quantum Hydrodynamics and Turbulence: A Journey from Legacy to Future</i>
16h20	(16h20-16h55) Javad Shabani, <i>Gate-tunable Superconducting Diode Effect</i>	(16h20-16h55) Vladimir Eltsov, <i>Nanomechanical probes of vortex dynamics in quantum fluids</i>

16h55-17h25 Coffee

Tuesday, 12 August, Afternoon Parallel Sessions

Room 1A level 5 12.PS8.1. Superfluid helium-IV	Audit 1 level 4 12.PS8.2. Thin films and interfaces-III (COST superqumap.eu)	Audit 2 level 4 12.PS8.3. Oxides and arsenides	Luxua 1 level 5 12.PS8.4. Nickelates-II	Luxua 2 level 5 12.PS8.5. Topological States, and Anomalous Hall Effect	Room 2 level 5 12.PS8.6. Topology in Quantum Materials-III	Room 1B level 5 12.PS8.7. Topological superconductivity-II	Room 3 level 5 12.PS8.8. Low dimensional systems	Room level 2 12.PS8.9. Superconducting quantum circuits-IV	Room 4 level 5 12.PS8.10. LT detectors-II
(17h25-17h50). 12.PS8.1.1. Junko Taniguchi, <i>Property of superfluid and flow of ⁴He confined in a nanometer-sized channel</i>	(17h25-17h50). 12.PS8.2.1. M. Iavarone <i>Engineering Nb-Au Interfaces for Superconducting Qubits</i>	(17h25-17h50). 12.PS8.3.1. Y Maeno <i>Bridging various strain-related responses of superconducting Sr₂RuO₄</i>	(17h25-17h50). 12.PS8.4.1. K. Kuroki <i>Theoretical study on high T_c unconventional superconductivity in multilayer nickelates La₃Ni₂O₇ and La₂Ni₃O₁₀</i>	(17h25-17h50). 12.PS8.5.1. H-Y Kee <i>Microscopic Roadmap to a Kitaev-Yao-Lee Spin-Orbital Liquid</i>	(17h25-17h50). 12.PS8.6.1. Wei-Li Lee <i>Nonlinear and nonreciprocal transport effects in untwinned thin films of topological Weyl metal SrRuO₃</i>	(17h25-17h50). 12.PS8.7.1. K Franke <i>Wave-function engineering of Yu-Shiba-Rusinov states from magnetic atoms and molecules on superconductors</i>	(17h25-17h50). 12.PS8.8.1. G Katsaros <i>Charge and spin in planar Germanium</i>	(17h25-17h50). 12.PS8.9.1. S. Gasparinetti	(17h25-17h50). 12.PS8.10.1. S Kubatkin <i>Sensing microwave photons with scalable epitaxial graphene bolometers</i>
(17h50-18h05) 12.PS8.1.2. Igor Zaliznyak <i>Bogolyubov-Feynman-Pitaevskii spectrum and decays of phonon-roton quasiparticles in superfluid helium</i>	(17h50-18h05) 12.PS8.2.2. N Fridman <i>Anomalous Thickness Dependence of the Vortex Pearl Length in Few-Layer NbSe₂</i>	(17h50-18h05) 12.PS8.3.2. I. Sochnikov <i>Superelastic Microstructures of Superconducting Strontium Titanate</i>	(17h50-18h05) 12.PS8.4.2. Y.-T. Hsu <i>Transport phase diagram and anomalous metallicity in superconducting infinite-layer nickelates</i>	(17h50-18h05) 12.PS8.5.2. H Ishizuka <i>Chirality-related anomalous hall effect in pyrochlore magnets</i>	(17h50-18h05) 12.PS8.6.2. A Devillez <i>Bond-dependent interactions and ill-ordered state in the honeycomb cobaltate BaCo₂(AsO₄)₂</i>	(17h50-18h05) 12.PS8.7.2. V Kornich <i>Non-Hermitian superconductivity: stability, generation and detection</i>	(17h50-18h05) 12.PS8.8.2. A Hüttel <i>Transport spectroscopy of MoS₂ nanotube quantum dots</i>	(17h50-18h05) 12.PS8.9.2. Shohei Miyakoshi <i>Advancing Quantum Circuit Optimization Through Density Matrix Renormalization Group Techniques</i>	(17h50-18h05) 12.PS8.10.2. K Ramos <i>Development of photon detectors based on granular aluminum superconducting resonators</i>
(18h05-18h20) 12.PS8.1.3. Emil Varga <i>Decay of Two-Dimensional Quantum Turbulence</i>	(18h05-18h20) 12.PS8.2.3. M. Šindler <i>Vortex mass in high-T_c superconductors</i>	(18h05-18h30) 12.PS8.3.3. Changhee Lee <i>Superconductivity and Antiferromagnetism in CeRh₂As₂: Unification through type-II van Hove singularity</i>	(18h05-18h20) 12.PS8.4.3. Xianhui Chen <i>Superconductivity and density wave transition in Ruddlesden-Popper phase nickelates</i>	(18h05-18h20) 12.PS8.5.3. S Chowdhury <i>Understanding the Quantum Anomalous Hall Effect (QAHE) in 2D-UOTe</i>	(18h05-18h20) 12.PS8.6.3. DJ Huang <i>Revealing Chiral Phonons in Quantum Materials via Resonant Inelastic X-ray Scattering</i>	(18h05-18h20) 12.PS8.7.3. C González <i>Signatures of edge states in antiferromagnetic van der Waals Josephson junctions</i>	(18h05-18h20) 12.PS8.8.3. A Loh <i>Microwave optomechanics with a carbon nanotube nano-electromechanical resonator</i>	(18h05-18h20) 12.PS8.9.3. Sh Xue <i>Error-mitigated entanglement-assisted quantum process tomography</i>	(18h05-18h20) 12.PS8.10.3. C Pobes <i>Cryogenic radiation detectors base on Transition Edge Sensors</i>
(18h20-18h45) 12.PS8.1.4. Ladislav Skrbek <i>Critical Velocities in Flows of Superfluid ⁴He</i>	(18h20-18h45) 12.PS8.2.4. M. Eschrig <i>Purely even harmonic Josephson currents due to crossed equal-spin pair transmission</i>	(18h30-18h55) 12.PS8.3.4. J. Landaeta <i>Quantum oscillations of Sr₂RuO₄ under c-axis uniaxial stress</i>	(18h20-18h45) 12.PS8.4.4. H. Yuan <i>From Heavy Fermions to Nickelates: Superconductivity, Quantum Criticality, and Strange Metals</i>	(18h20-18h45) 12.PS8.5.4. N Trivedi <i>Detection of anyon braiding through pump-probe spectroscopy</i>	(18h20-18h45) 12.PS8.6.4. M Klanjsek <i>Kitaev and Dirac Quantum Spin Liquids in Honeycomb Magnets</i>	(18h20-18h45) 12.PS8.7.4. J Klinovaja <i>From perfect to imperfect poor man's Majoranas in minimal Kitaev chains</i>	(18h20-18h45) 12.PS8.8.4. G Csathy <i>Non-Coulombic Short-Range Potentials and Competing Orders in the Two-dimensional Electron Gas</i>	(18h20-18h45) 12.PS8.9.4. S. Kono, <i>Scalable Superconducting Circuit Optomechanics with Millisecond Quantum Coherence</i>	(18h20-18h45) 12.PS8.10.4. D.B. Tanner <i>Search for dark-matter axions</i>
(18h45-19h00) 12.PS8.1.5. L Cavicchioli <i>Formation of Multiple Quantum Droplets through Capillary Instability</i>	(18h45-19h00) 12.PS8.2.5. M. Zgirski <i>A single superconducting vortex on a leash.</i>	(18h55-19h20) 12.PS8.3.5. HM Noad <i>Thermodynamic Measurements of Sr₂RuO₄ under Uniaxial Stress</i>	(18h45-19h00) 12.PS8.4.5. D. Inoue <i>Unconventional SDW+CDW order and superconductivity in bilayer nickelate: intra/inter-layer bond-order fluctuations mediated pairing mechanism</i>	(18h45-19h00) 12.PS8.5.5. G Gervais <i>Observation of Temperature-Independent Anomalous Hall Effect in Thin Bismuth from Near Absolute Zero to 300 K Temperature</i>		(18h45-19h10) 12.PS8.7.5. M.A. Cazalilla <i>Probing Magnetic and Triplet Correlations in Spin-Split Superconductors with Magnetic Impurities</i>		(18h45-19h10) 12.PS8.9.5. W. Poirier <i>A primary quantum current standard for the Ampere</i>	

Wednesday, 13 August

	Auditorium level 4 (900)
	Plenary session 4
09h00	(09h00-09h45) Jim Sauls, <i>The Left Hand of the Electron in Chiral Superfluids and Superconductors</i>
09h45	(09h45-10h30) Pablo Jarillo Herrero, <i>The Magic of Moiré Quantum Matter</i>

10h30-11h00 Coffee break and exhibition

Room 1A level 5 13.PS9.1. Interactions and condensates	Luxua2 level 4 13.PS9.2. Cuprates-II	Luxua1 level 4 13.PS9.3. Thin films and interfaces-IV	Auditorium level 3 13.PS9.4. Graphene and twisted systems-II	Room 1B level 5 13.PS9.5. Topology in Quantum Materials-IV	Room 2 level 5 13.PS9.6. Unconventional Effects in Superconducting Junctions	Room 3 level 5 13.PS9.7. Topological Transport and Quantum Hall States	Room level 2 13.PS9.8. Quantum simulation	Room 4 level 5 13.PS9.9. Thermometry and refrigeration techniques-IV
(11h00-11h25). 13.PS9.1.1. Lev Haldar Kendrick <i>Emergent physics at ultralow temperatures in a Fermi-Hubbard quantum simulator</i>	(11h00-11h25). 13.PS9.2.1. ZX Shen <i>Unconventional Superconductivity in Cuprates – Strides Made and Challenges Remain</i>	(11h00-11h25). 13.PS9.3.1. J Wang <i>Discovery of higher charge superconductivity beyond charge-2e Cooper pairs</i>	(11h00-11h25). 13.PS9.4.1. D. Efetov	(11h00-11h25). 13.PS9.5.1. M Sato <i>Callan-Rubakov effects in topological insulators</i>	(11h00-11h25). 13.PS9.6.1. F Qu <i>Boundary supercurrent and continuous non-integer Shapiro steps in NiTe₂-based Josephson junctions</i>	(11h00-11h25). 13.PS9.7.1. G Finkelstein <i>Electrical and thermal properties of the superconductor – quantum Hall interfaces</i>	(11h00-11h25). 13.PS9.8.1. Yu-Ao Chen <i>Quantum Simulation with Ultracold Atoms</i>	(11h00-11h25). 13.PS9.9.1. R Haley <i>Cooling nanoelectronic devices to the sub-mK regime</i>
(11h25-11h50) 13.PS9.1.2. Daniel Barredo <i>Exploring quantum magnetism with dipolar Rydberg atom arrays</i>	(11h25-11h50) 13.PS9.2.2 D. Leboeuf <i>Strange metal and spin fluctuations in cuprate superconductors</i>	(11h25-11h50) 13.PS9.3.2 X. Qiu <i>Visualization of skyrmion-superconducting vortex pairs in a chiral magnet-superconductor heterostructure</i>	(11h25-11h50) 13.PS9.4.2 F. Guinea	(11h25-11h50) 13.PS9.5.2 M Uchida <i>In-plane anomalous Hall effect in magnetic Weyl semimetal films</i>	(11h25-11h50) 13.PS9.6.2 P Hakonen, <i>Experiments on 1/f noise in normal and superconducting low-dimensional conductors</i>	(11h25-11h50) 13.PS9.7.2 C. Spanslatt <i>Electrical noise spectroscopy of magnons in a quantum Hall ferromagnet</i>	(11h25-11h50) 13.PS9.8.2 Haohua Wang <i>Multiqubit superconducting platform for simulating quantum many-body physics</i>	(11h25-11h50) 13.PS9.9.2 A Casey <i>Immersion cooling quantum materials and quantum devices to sub-mK</i>
(11h50-12h05) 13.PS9.1.3. D Yamamoto <i>Entropy engineering in SU(N) cold atoms for simulating strongly correlated electron systems</i>	(11h50-12h05) 13.PS9.2.3. J.E. Hirsch <i>Unanswered questions raised by the Meissner effect and proposed answers</i>	(11h50-12h05) 13.PS9.3.3. L. Greene <i>Planar Tunnel Spectroscopy of CeColn_s: Investigation of local-moment pairing.</i>	(11h50-12h05) 13.PS9.4.3. Zh. Zhan <i>Robust flat bands in twisted trilayer graphene</i>	(11h50-12h05) 13.PS9.5.3. K. Frei <i>Half-quantized Hall Plateaus in the Confined Geometry of Graphene</i>	(11h50-12h05) 13.PS9.6.3. S Kobayashi <i>Phase control of fermion parity in a quantum dot Josephson junction</i>	(11h50-12h05) 13.PS9.7.3. A. Wang <i>Observation of topological Anderson Chern insulator phase in MnBi₄Te₇ monolayer</i>	(11h50-12h05) 13.PS9.8.3. Yue Ban <i>Digital Quantum Simulation of Fermionic Lattice Models with Counterdiabatic Ansatz</i>	(11h50-12h05) 13.PS9.9.3 O Sharifi <i>Cooling and thermometry of a semiconductor 2D gas down to 1 mK</i>

12h05-12h10 Move to Auditorium level 4

	Auditorium Level 4
	Award of IUPAP early career scientist prize in low temperature physics
12h10	(12h10-12h40) Anasua Chatterjee, <i>Increasing the complexity of semiconductor quantum devices</i>
12h40	(12h40-13h10) Bayan Karimi, <i>Bolometric measurements on superconducting quantum thermodynamic setups</i>
13h10	(13h10-13h40) Shuqiu Wang, <i>Quasiparticle Scattering Interference Imaging of Topological Superconductivity in UTe₂</i>
13h40	Closing