LT30
Bilbao 2025

30th International Conference
on Low Temperature Physics

PROGRAM BOOK

07-13 AUGUST 2025 BILBAO, SPAIN

Bilbao Exhibition Centre

30th International Conference on Low Temperature Physics

7-13 August 2025, Bilbao, Spain

INTERNATIONAL YEAR OF Quantum Science and Technology

Organizing Committee for the LT30:

Universidad Autónoma de Madrid

Autonomous University of Madrid (UAM)

CSIC Consejo Superior de Investigaciones Científicas

Spanish National Research Council (CSIC)

Donostia International Physics Center

Donostia International Physics Center (DIPC)

Secretariat:

TISA (TRADUCCIONES E INTÉRPRETES, S.A.L)
San Vicente 8 – Edif. Albia II, 7º 48001 - Bilbao Spain
info@lt30.es

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SPECSGROUP

1 ACCESS MAP

BEC! Bilbao Exhibition Centre

Ronda Azkue 1, 48902 Barakaldo, Bizkaia. Spain.

2 VENUE

BEC! Bilbao Exhibition Centre

The meeting will take place in the congress centre.

Entrance is below the big black hall.

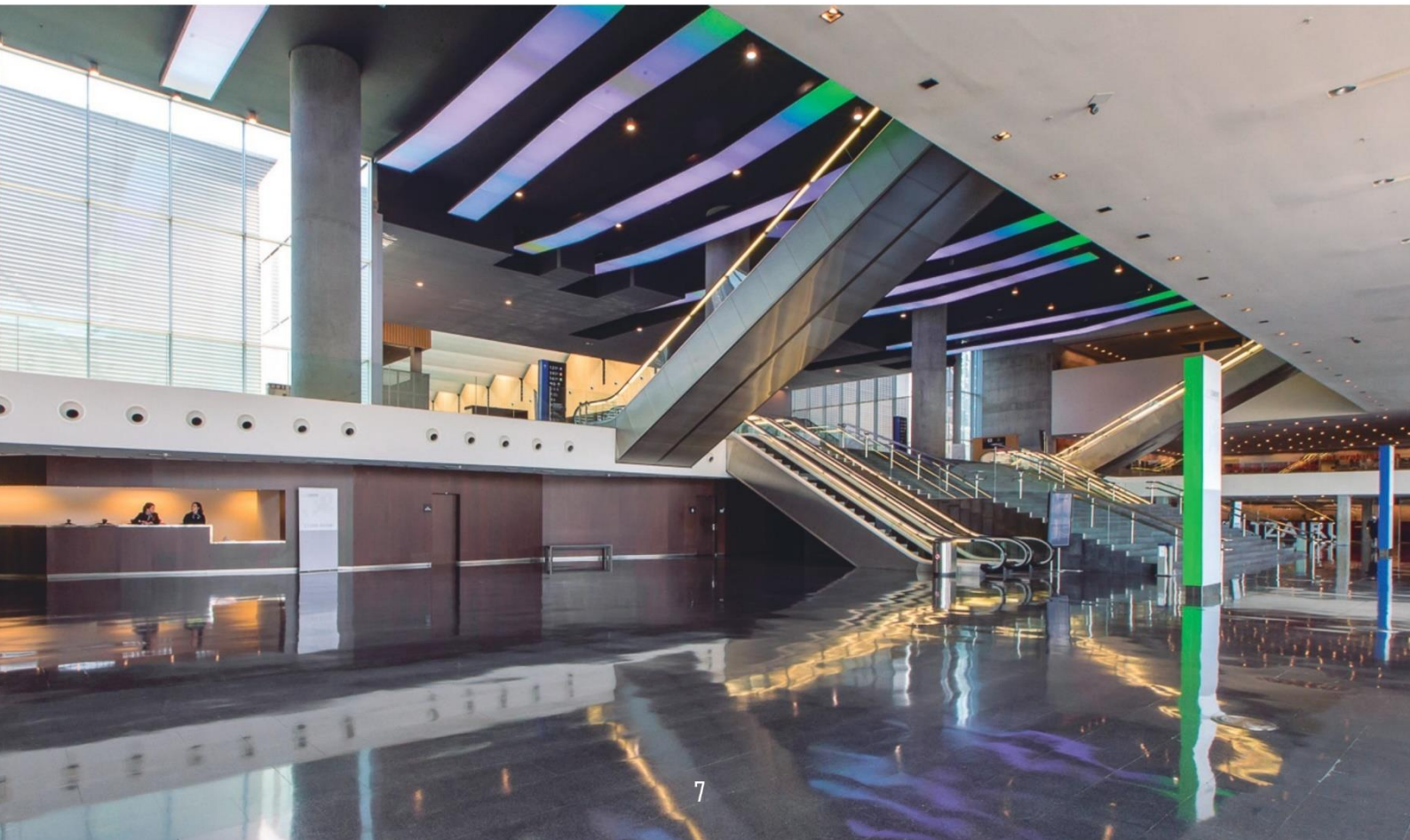
Public transportation is punctual and has a high frequency. **Subway station Ansio** is just at the entrance and is at 12 minutes subway ride to downtown Bilbao.

Fully in-person meeting.

3 SECRETARIAT OFFICE AND CONTACT INFORMATION

Secretariat Office is located at the Entrance Hall in the 0 Floor of Bilbao Exhibition Centre.

Email: **info@lt30.es**



4 REGISTRATION

All participants are asked to **register online** before coming to the conference.

https://www.lt30.es/registration/

Registration Fees

	REGULAR From **Jun. 11,** 2025 Until **Jul. 30**, 2025	ON-SITE From **Aug. 7**, 2025 Until **Aug. 13**, 2025
Non Student	490€	550€
Student	300€	400€

All fees are indicated in Euros (€), 21% VAT not included.

5 INTERNET

We offer participants a free internet connection throughout the venue.

SSID: LT30Bilbao
PW: LT30Bilbao

6 ATTENDING THE SESSIONS

Oral Sessions

Directly come to the session room you want to join. Refer to the timetable and program list.

Poster Sessions

SCHEDULE

DATE	ONSITE (It is located on the third floor, beyond the exhibitor area)
August 8, Friday	14:30-15:15
August 9, Saturday	14:30-15:15
August 10, Sunday	No Poster Session
August 11, Monday	14:30-15:15
August 12, Tuesday	14:30-15:15

Visit the poster session room at any time during the conference and discuss with presenters during the core time. Posters of each session will be posted between 9:00 and 18:00.

7 INFORMATION FOR PRESENTERS

Information for Oral Presenters

1. Check in for oral presenters at the PC Center [Onsite Only]

Presenters are required to use PC equipped in the convention center for their presentation.

Bring your presentation slides to the PC center the days before your presentation. Presenters of the first day are required to bring the slides by 13:30. The guidelines listed below should be followed, at the presentation upload desk.

Bring your presentation slides (in **Windows PPT, PPTX** or **Adobe PDF** format) in **CD/DVD** or **USB** flash drive.	Your media should contain **only the presentation data for the Conference.**	Your presentation data file should be named as **<Session Number>-<Name>**

Opening Hours of PC Center	
August 7, Thursday	13:30-18:00
August 8, Friday	8:30-18:30
August 9, Saturday	8:30-18:30
August 10, Sunday	8:30-12:30
August 11, Monday	8:30-18:30
August 12, Tuesday	8:30-18:30
August 13, Wednesday	8:30-13:00

2. Presentation guideline

The official language of the conference is English. **Prepare your presentation slides in English.**

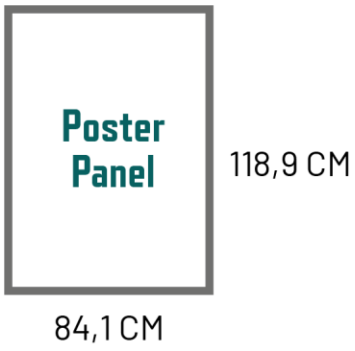
The **16:9** aspect ratio of the **slides** is **recommended,** but the 4:3 aspect ratio is also acceptable.

The presentation time of your talk shown in the time schedule and the program list includes **discussion time of 5 minutes.** Prepare your talk accordingly.

Information for Poster

Presenters [Onsite session]

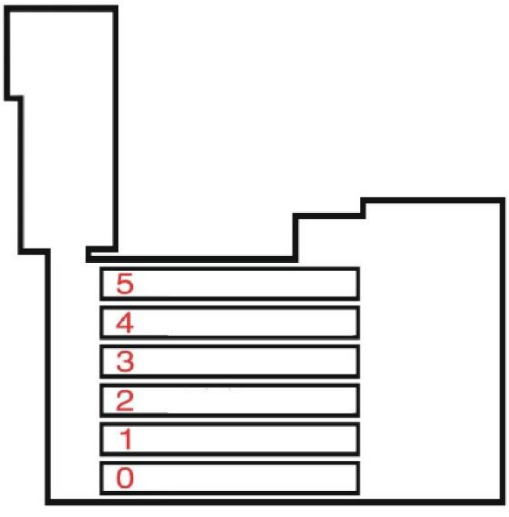
The size of the poster panel is 84,1 x 118,9 cm, DIN A0. Prepare your poster in vertical style.



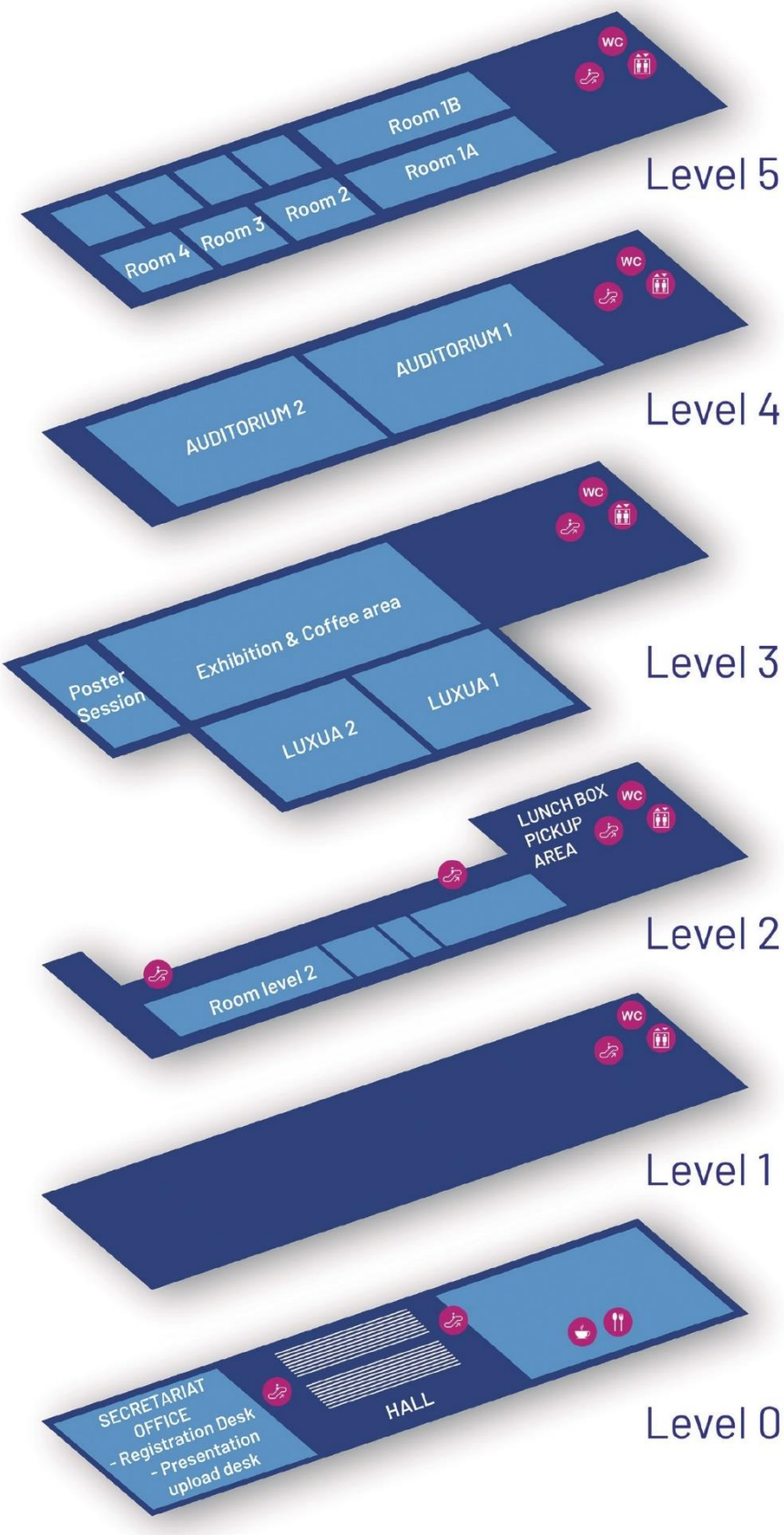
Information for Chairs

1. Be seated in the Chairperson's seats at least 10 minutes prior to the beginning of your session.
2. Please ensure that the session finishes on time. Each **invited talk** is allocated a maximum of **20 minutes for the presentation** plus **5 minutes for discussion.** Each **contributed talk** is allocated a maximum of **12 minutes for the presentation** plus **3 minutes for discussion.** In the unlikely event of a cancellation or no-show, **do not move talks forward.** Presentations must follow the published schedule.

8 FLOOR MAP



*Institute of Physics of the Chinese Academy of Sciences Alumni event will be on level 7



9 TRANSPORT INFORMATION

In order to use public transportation in Bilbao, it is necessary to have a Barik card or a single-use ticket.

BARIK

This allows the holder to use a wide range of **public transport** systems in the Historical Territory of Bizkaia: Metro Bilbao, Bilbobus, Tram, Basque Railways, Bizkaia Transporter Bridge, Artxanda Funicular, Larreineta Funicular...

This **pre-paid card** costs **3€** and has to be recharged for use, for amounts starting at **5€**.

Up to 10 people can travel with the same card at the same time, provided all of them start their journey together and there is enough balance on the card.

Using this card, every journey will be cheaper than buying a single ticket each time (40-50 % of discount). **If multiple trips are planned, it is more advisable to purchase the Barik card.**

Each zone has its own fare:
1 zone 0.59€
2 zones 0.70€
3 zones 0.76€

Single (1 journey)

This ticket is valid for a single journey. Tickets can be purchased at any of the Metro Bilbao ticket machines at all the underground stations of lines 1, 2 and 3.

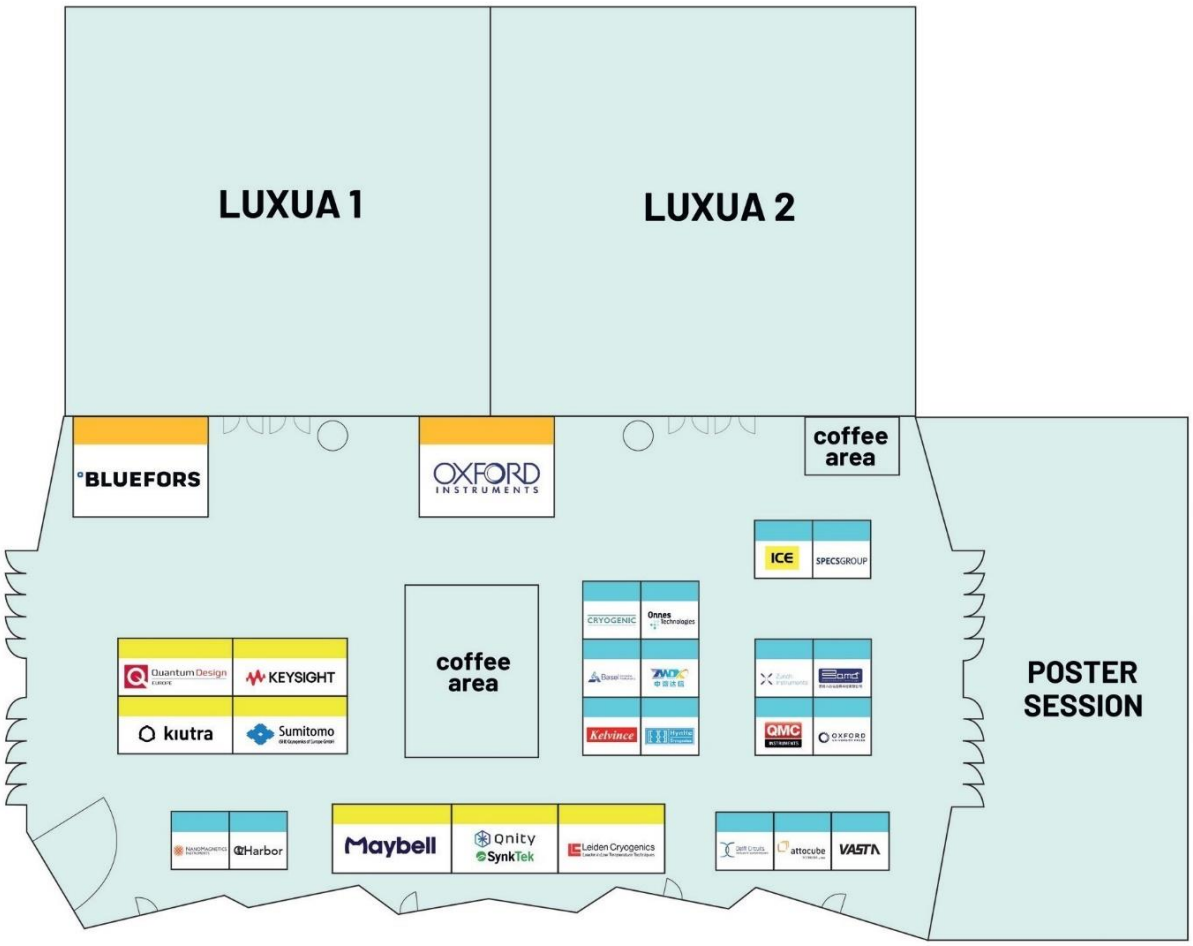
Each zone has its own fare:
1 zone 1.90€
2 zones 2.10€
3 zones 2.15€

TAXIS

Radio taxi: +34 944 448 888
Tele taxi: +34 944 102 121
Taxi Nervión: +34 944 269 026

Taxis usually allow clients to pay with a bank card; however, we suggest asking before getting in.

10 EXHIBITION MAP



No.	Company Name / Organization
P1	Bluefors
P2	Oxford Instruments NanoScience
G1	Quantum Design GMBH
G2	Keysight Technologies
G3	kiutra GmbH
G4	Sumitomo (SHI) Cryogenics of Europe GmbH
G5	Maybell Quantum
G6	Qnity + Synktek
G7	Leiden Cryogenics BV
1	NanoMagnetics Instruments Ltd.
2	QHarbor
8	Delft Circuits
9	Attocube systems

No.	Company Name / Organization
10	VASTA PTE. LTD.
11	Oxford University Press
12	Suzhou Bama Superconductor Technology Co., Ltd
13	Zurich Instruments
14	QMC Instruments Ltd.
15	Hynhe Technology (Guangzhou) Co.,Ltd
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21	ICE Oxford
22	SPECS Surface Nano Analysis GmbH

30th International Conference on Low Temperature Physics

7-13 August 2025, Bilbao, Spain

Thursday, 7 August, Day 1

13h00	**Arrival and registration**
14h15	**Auditorium Level 4**
	Opening
	Award of Fritz London Memorial Prize. Presenter Pertti Hakonen
14h30	(14h30-15h15) Robert Hallock, *Toward an Understanding of solid ^{4}He*
15h15	(15h15-16h00) John Saunders, *Quantum Materials and Sensors into the Microkelvin Regime*
16h00	(16h00-16h45) Ali Yazdani, *Emergent quantum phenomena under the microscope*

16h45-17h15 Coffee break

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

18h45-20h00 Welcome reception Luxual level 3

Friday, 8 August, Day 2

	Auditorium level 4
	Plenary session 1. Chair: Michele Modugno
09h00	(09h00-09h45) Francesca Ferlaino, *Supersolids in Magnetic Gases: From Roton Softening to Quantum Vortices*
09h45	(09h45-10h30) William Oliver, *Emulating the Bose-Hubbard Model with Arrays of Superconducting Qubits*

10h30-11h00 Coffee break and exhibition

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

12h10-12h15 Room change to parallel sessions

Friday, 8 August, Morning Parallel Sessions

Room 1B level 5 8.PS1.1 Superfluid helium-I Chair: Robert Hallock	**Luxua 1 level 3** 8.PS1.2 Nickelates-I Chair: Yoshiteru Maeno	**Auditorium level 4** 8.PS1.3 UTe_2-I Chair: Johnpierre Paglione	**Room 1A level 5** 8.PS1.4 Strongly correlated magnets-I Chair: Valentin Taufour	**Luxua 2 level 3** 8.PS1.5 Topology and quantum materials-I Chair: Cory Dean	**Room 2 level 5** 8.PS1.6 Superconducting properties and devices Chair: Vidya Madhavan	**Room level 2** 8.PS1.7 Electron interactions and quantum interference Chair: Gleb Finkelstein	**Room 3 level 5** 8.PS1.8 Superconducting quantum circuits-I Chair: Nicolas Roch	**Room 4 level 5** 8.PS1.9 Low temperature instrumentation & applications-I Chair: Beena Kalisky
(12h15-12h40). 8.PS1.1.1. Jere Mäkinen *Time crystal optomechanics*	(12h15-12h40) 8.PS1.2.1. Jun Zhao *Superconductivity in pressurized trilayer nickelate single crystals*	(12h15-12h40) 8.PS1.3.1. Jean-Pascal Brison *Field and Pressure-induced Superconducting Phases in UTe_2*	(12h15-12h40) 8.PS1.4.1. Fakher Assaad *Dimensional mismatch Kondo systems*	(12h15-12h40) 8.PS1.5.1. Adolfo G. Grushin *Enforcing topology in non-crystalline metals*	(12h15-12h40) 8.PS1.6.1. Rais Shaikhaidarov *Development of superconducting Bloch Transistor.*	(12h15-12h40) 8.PS1.7.1. Masayuki Hashisaka *Mach-Zehnder interference of fractionalized electron-spin excitations*	(12h15-12h40) 8.PS1.8.1. Ioan Pop *Superconducting Qubits Resilient to Tesla-Scale Magnetic Fields*	(12h15-12h40) 8.PS1.9.1. Sebastian de Graaf *In-situ structural and chemical identification of material defects in superconducting quantum circuits at mK temperatures*
(12h40-12h55) 8.PS1.1.2 Carlos Uriarte *Quantum Turbulence in ^4He Characterized by a Superconducting Levitator Probe*	(12h40-12h55) 8.PS1.2.2. Seiichiro Onari *Analysis of non-fermi-liquid transport phenomena in thin-film bilayer nickelate $La_3Ni_2O_7$*	(12h40-12h55) 8.PS1.3.2. Arthur Carlton-Jones *Microwave Electrodynamics and Low-Energy Excitations of Superconducting UTe_2*	(12h40-12h55) 8.PS1.4.2. Kirill Povarov *Pressure-induced ordering in the gapped quantum magnet DTN*	(12h40-12h55) 8.PS1.5.2. Lukasz Luszynski *Effect of uniaxial stress on the magnetostriction of Weyl semimetal TaAs*	(12h40-12h55) 8.PS1.6.2. Tadeusz Domanski *Non-equilibrium signatures of electron pairing in quantum dots coupled to superconductors*	(12h40-12h55) 8.PS1.7.2. Vyacheslavs Kashcheyevs *Evidence of Coulomb liquid phase in a few-electron droplets*	(12h40-12h55) 8.PS1.8.2. Heorhii Bohuslavskyi *Superconducting-transistor technology based on CVD graphene: toward superconducting integrated circuits*	(12h40-12h55) 8.PS1.9.2. Ankit Sharma *Cryogenic SPM tools for magnetic imaging: MFM and NV magnetometry*
(12h55-13h10) 8.PS1.1.3 David Schmoranzer *Discrete dissipation events measured with Si microwires in pure superfluid ^4He*	(12h55-13h10) 8.PS1.2.3. Muntaser Naamneh *Pi/4 phase shift in the anisotropic magnetoresistance of infinite layer nickelates*	(12h55-13h10) 8.PS1.3.3. Timothée Vasina *Identicality of the High-Field and High-Pressure Superconducting Phases in UTe_2*	(12h55-13h10) 8.PS1.4.3. Kartik Panda *Raman spectroscopy of the magnetic coupling in Gd-i-MAX*		(12h55-13h10) 8.PS1.6.3. Jie Shen *Evidence of p-wave Pairing in $K_2Cr_3As_3$ Superconductors from Phase-sensitive Measurement*	(12h55-13h20) 8.PS1.7.3. Andrey Chubukov *Isospin orders and superconductivity in graphene multilayers*	(12h55-13h10) 8.PS1.8.3. Ekaterina Mukhanova *1/f phase noise in traveling wave parametric amplifier*	(12h55-13h10) 8.PS1.9.3. Avia Noah *Nanoscale magnetic effects in the 2D magnet $CrGeTe_3$*
(13h10-13h25) 8.PS1.1.4 Ambarish Ghosh *Wigner crystallization on curved surfaces: collapsing multielectron bubbles in liquid ^4He and ^3He*		(13h10-13h25) 8.PS1.3.4 Suguru Hosoi *Presence/absence of point nodes revealed by thermal conductivity in UTe_2*					(13h10-13h25) 8.PS1.8.4 Yu-Cheng Chang *Towards ultra strong-coupling quantum thermodynamics using a superconducting flux qubit*	(13h10-13h25) 8.PS1.9.4 Kamal Brahim *Measurements into the Single Photon Regime in Ferroelectric Materials*

13h25-14h00 Lunch

14h00 Welcome words by the Rector of EHU, level 3

14h00-15h45 Poster session.

	Semiplenary Session 2	
	Auditorium 2 level 4. Chair Eli Zeldov	**Luxua 1 level 3. Chair Jose Ignacio Pascual**
15h45	(15h45-16h20) Long Ju, *Fractional Quantum Anomalous Hall Effect and Chiral Superconductivity in Graphene*	(15h45-16h20) Vidya Madhavan, *Vector Magnetic Field Response of Superconductivity and Charge Density Wave in* UTe_2
16h20	(16h20-16h55) Chun Ning (Jeanie) Lau, *Quantum Geometry and Screening of Flat Band Superconductivity in Twisted Bilayer Graphene*	(16h20-16h55) Beena Kalisky*, Spatial distribution of electronic properties in* TaS_2

16h55-17h25 Coffee break

Friday, 8 August, Afternoon Parallel Sessions

Room 1B level 5 8.PS2.1. Superfluid ^{3}He Chair: Jere Mäkinen	**Room level 2** 8.PS2.2. Quantum gases Chair: Jordi Boronat	**Luxua 1 level 3** 8.PS2.3 Iron based superconductors Chair: Peter Armitage	**Luxua 2 level 3** 8.PS2.4. Thin films and interfaces-I Chair: Nandini Trivedi	**Auditorium 1 level 4** 8.PS2.5. Correlations and graphene Chair: Elena Bascones	**Auditorium 2 level 4** 8.PS2.6. Topology and Quantum Materials-II Chair: Adolfo Grushin	**Room 1A level 5** 8.PS2.7. Superconductivity, Spin orbit coupling and diode effects. Chair: Andrey Chubukov	**Room 2 level 5** 8.PS2.8. Thermal effects and heat transport Chair: Christoph Strunk	**Room 3 level 5** 8.PS2.9. Superconducting quantum circuits-II Chair: Ioan Pop	**Room 4 level 5** 8.PS2.10. LT Detectors-I Chair: Mika Sillanpää
(17h25-17h50). 8.PS2.1.1. Samuli Autti *QUEST-DMC: Looking for Low Mass Dark Matter using Superfluid ^{3}He*	(17h25-17h50). 8.PS2.2.1. Yuki Kawaguchi *Dynamics of one-dimensional spinless fermions coupled with dynamical axion fields*	(17h25-17h50). 8.PS2.3.1. Subhasish Mandal *The Interplay of Electron Correlation, El.-Phonon Coupling, and non trivial topology for Enhancing Superconductivity in FeSe/ $SrTiO_3$*	(17h25-17h50). 8.PS2.4.1. Cui-Zu Chang *Interface-Induced Superconductivity in Quantum Anomalous Hall Insulators*	(17h25-17h50). 8.PS2.5.1. Cory Dean *Studies of electron viscosity in graphene - quantitative measurement from magnetoconductance in Corbino*	(17h25-17h50). 8.PS2.6.1. Junji Haruyama *Pseudo Tunnel Magnetoresistance Behaviours in Large-twist vdW Integration of Thin Magnetic Layers Fe_3GeTe_2*	(17h25-17h50). 8.PS2.7.1. Jon Ortuzar *A nanoscale Cooper pair tunneling diode*	(17h25-17h50). 8.PS2.8.1. Ilari Maasilta *Low-temperature heat transfer across vacuum via acoustic phonon tunneling*	(17h25-17h50). 8.PS2.9.1. Nicolas Roch *Josephson meta-materials: a new platform for quantum optics*	(17h25-17h50). 8.PS2.10.1. Steffen Grohmann *Gravitational-wave detectors cooled with superfluid helium – GRAVITHELIUM*
(17h50-18h05) 8.PS2.1.2 John Scott *Modelling the influence of structural anisotropy on superfluid helium-3 in aerogel*	(17h50-18h05) 8.PS2.2.2. Andrea Tononi *Dimer problem on a spherical surface*	(17h50-18h05) 8.PS2.3.2. Yanzhao Liu *Pair density wave and modulation state in a monolayer high-T_c iron-based superconductor*	(17h50-18h05) 8.PS2.4.2. Ning Kang *Observation of a twofold anisotropy in ultrathin Mo_2C superconducting crystals*	(17h50-18h05) 8.PS2.5.2. Ryan L. Lee *Charge Sensing of Fractional Quantum Hall States in Graphene*	(17h50-18h05) 8.PS2.6.2. Yuki Nagai *Self-Learning Monte Carlo Method with Equivariant Transformer*	(17h50-18h15) 8.PS2.7.2. Ilya Tokatly *Effective field theory for coupled charge and spin transport in mesoscopic superconductors*	(17h50-18h05) 8.PS2.8.2. Tsuyoshi Yamamoto *Quantum heat transport across a Josephson junction*	(17h50-18h05) 8.PS2.9.2. Zhihui Peng *Experimental realization of on-chip few-photon control around exceptional points*	(17h50-18h05) 8.PS2.10.2. Dounia Helis *A Superconducting Qubit as an Underground Particle Detector*
(18h05-18h20) 8.PS2.1.3 Jan Knapp *Evidence for Many Body Localization of ^{3}He atoms in two dimensions*	(18h05-18h20) 8.PS2.2.3. Jacques Tempere *Polarons as probes of superfluid and supersolid phases in quantum gases*	(18h05-18h20) 8.PS2.3.3. Maw-Kuen Wu *Correlation between Fe-vacancy and superconductivity in $K_2Fe_{4+x}Se_5$ crystals*	(18h05-18h20) 8.PS2.4.3. Jiawei Zhang *Stacking-selective self-intercalation in $Nb_{1+x}Se_2$*	(18h05-18h20) 8.PS2.5.3. Kazuki Nakazawa *Theory of nonlinear Shubnikov-de Haas effect.*	(18h05-18h30) 8.PS2.6.3. Celia Rogero *Epitaxial vdW Heterostructures with Magnetic Transition Metal Dihalides as a Universal Platform for Investigation of the Quantum Effects*	(18h15-18h40) 8.PS2.7.3. Denis Kochan *Magnetoelectric phenomena of non-centrosymmetric superconductors – supercurrent diode effect and anisotropic vortex squeezing*	(18h05-18h20) 8.PS2.8.3. Yasuhiro Tokura *Quantum Heat Transport across Capacitively Coupled Quantum Dots*	(18h05-18h20) 8.PS2.9.3. Adrian Parra-Rodríguez *Exact and dispersive models for superconducting networks*	(18h05-18h20) 8.PS2.10.3. Antonio D` Addabbo *The monolithic arrays of the BULLKID-DM Kinetic Inductance Detectors searching for light Dark Matter*
(18h20-18h45) 8.PS2.1.4 Anton Vorontsov *Modeling superfluid He-3 in anisotropic aerogel*	(18h20-18h45) 8.PS2.2.4. Fernando Sols Superfluidity from correlations in driven boson systems	(18h20-18h45) 8.PS2.3.4. Hai-Hu Wen *Small Fermi energy and unique vortex bound states in iron-based superconductors*	(18h20-18h45) 8.PS2.4.4. Thilo Bauch *Quasiparticle Spectroscopy using a YBCO Transmon*	(18h20-18h45) 8.PS2.5.4. Vadim Geshkenbein *Abrikosov vortices switching Josephson current in magic angle graphene*	(18h30-18h55) 8.PS2.6.4. Chuan Li *Multi-channel second-order topological states in $Bi_{0.97}Sb_{0.03}$*	(18h40-19h05) 8.PS2.7.4. Sadashige Matsuo *Superconducting diode effect in coherently coupled Josephson junctions*	(18h20-18h45) 8.PS2.8.4. Eduardo Lee *Joule spectroscopy and thermal effects in hybrid superconductor-semiconductor nanodevices*	(18h20-18h45) 8.PS2.9.4. Malika Randeria *Decoherence in fluxonium: a case study in superconducting qubit design*	(18h20-18h45) 8.PS2.10.4. Shihong Fu *Recent results from CUORE and path towards CUPID*
(18h45-19h00) 8.PS2.1.5 Asier Lopez-Eiguren *Numerical simulations of superfluid ^{3}He*	(18h45-19h10) 8.PS2.2.5. Sarah Hirthe *Probing supersolidity through excitations in a spin-orbit-coupled Bose-Einstein condensate*		(18h45-19h10) 8.PS2.4.5. Angelo Di Bernardo *Gate control of supercurrents: from earlier evidence to technological applications*	(18h45-19h10) 8.PS2.5.5. Freek Massee *Hund's assisted multi-channel quantum phase transition in Fe(Se,Te)*	(18h55-19h20) 8.PS2.6.5. Lin Jiao *Realizing a topological diode effect on SmB6*		(18h45-19h10) 8.PS2.8.5. Gleb Finkelstein *Electrical and thermal properties of the superconductor – quantum Hall interfaces*		(18h45-19h10) 8.PS2.10.5. Simone Quitadamo *First detection of marine microseismic activity with the CUORE ton-scale milliKelvin macro-calorimeters array*

Institute of Physics, Chinese Academy of Sciences Alumni Reception, at the Torre restaurant, 7th floor, from 19 to 22 h.

Saturday, 9 August

	Auditorium level 4
08h50	(08h50-09h00) Poster award presentation

	Auditorium level 4
	Plenary session 2. Chair Naoto Nagaosa
09h00	(09h00-09h45) Lieven Vandersypen, *Quantum computation and simulation with electrons*
09h45	(09h45-10h30) Andrea Young, *Superconductivity and magnetism in rhombohedral graphene multilayers*

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 3	
	Auditorium level 4. Chair John Saunders	**Luxua 1 level 3. Chair Hermann Suderow**
11h00	(11h00-11h35) Petri J. Heikkinen, *QUEST-DMC: The first-order phase transition in superfluid helium-3*	(11h00-11h35) J. C. Seamus Davis, *Imaging Superconductive Topological Surface Band and Spin Triplet Order Parameter of UTe_2*
11h35	(11h35-12h10) Wei Guo, *Recent progress in probing vortex dynamics and developing quantum information platforms*	(11h35-12h10) Peter Hirschfeld, *Overdoped cuprates: disorder, inhomogeneity, Homes scaling and all that*

12h10-12h15 Room change to parallel sessions

Saturday, 9 August, Morning Parallel Sessions

Room 1B level 5 9.PS3.1. Superfluid Helium-II Chair: Petri Heikkinen	**Luxua 1 level 3** 9.PS3.2. Superc. non-equilibrium and fluctuations Chair: Andreas Kreisel	**Auditorium level 4** 9.PS3.3. Cuprates I Chair: Mohit Randeria	**Luxua 2 level 3** 9.PS3.4. Unconventional superconductivity Chair: Xianhui Chen	**Room 1A level 5** 9.PS3.5. Correlated materials-I Chair: Alix McCollam	**Room 2 level 5** 9.PS3.6. Quantum Hall Chair: Rubén Seoane	**Room 3 level 5** 9.PS3.7. Quantum Transport-I Chair: Chuan Li	**Room 4 level 5** 9.PS3.8. Novel and hybrid quantum platforms-I Chair: Duy Ha Nguyen	**Room level 2** 9.PS3.9. Superconducting devices Chair: Eduardo Lee
(12h15-12h40) 9.PS3.1.1. Jack Harris *New results on magnetically levitated drops of superfluid helium*	(12h15-12h40) 9.PS3.2.1. Peter Armitage *Energy relaxation and dynamics in strongly correlated materials*	(12h15-12h40) 9.PS3.3.1. Yingying Peng *Electron-Phonon Coupling and Superconducting Gap Symmetry in High-Tc Cuprates*	(12h15-12h40) 9.PS3.4.1. Makoto Hashimoto *Unconventional Superconductivity in Cuprates – Strides Made and Challenges Remain*	(12h15-12h40) 9.PS3.5.1. Valentin Taufour *Giant field induced unconventional anomalous Hall conductivity in the non-centrosymmetric Weyl metal $CeCoGe_3$*	(12h15-12h40) 9.PS3.6.1. Frédéric Pierre *Observation of the scaling dimension of fractional quantum Hall anyons*	(12h15-12h40) 9.PS3.7.1. Tingxin Li *Fractional quantum anomalous Hall effect and competing quantum phases in twisted $MoTe_2$*	(12h15-12h40) 9.PS3.8.1. Erika Kawakami *Floating Electrons Coupled to Resonators*	(12h15-12h40) 9.PS3.9.1. Nicola Paradiso *2D arrays of ϕ0-Josephson junctions*
(12h40-13h05) 9.PS3.1.2. Dmitry Zmeev *Superflow on the scale of a coherence length*	(12h40-13h05) 9.PS3.2.2. Philip Phillips *Solving the Mott Problem*	(12h40-13h05) 9.PS3.3.2. Jeff Tallon *Questioning the cuprate paradigm - absence of superfluid density loss in overdoped cuprates*	(12h40-12h55) 9.PS3.4.2. Yuji Aoki *Search for Symmetry-Enforced Dirac Points via Magnetoresistance Quantum Oscillations in Non-Symmorphic Type-I Superconductor beta-$IrSn_4$*	(12h40-12h55) 9.PS3.5.2. Eran Maniv *Dark Metastable Conduction Channels near a Metal-Insulator Transition*	(12h40-12h55) 9.PS3.6.2. Olivier Maillet *Charge equilibration in counter-propagating quantum Hall channels coupled via Landauer reservoirs*	(12h40-12h55) 9.PS3.7.2. Alessandro Braggio *Thermoelectric detection in hybrid and quantum nanodevices*	(12h40-12h55) 9.PS3.8.2. Natalia Morais *Rydberg Tomography of Electrons on Helium in a Linear Microtrap*	(12h40-12h55) 9.PS3.9.2. Xiaoying Xu *Signature of chiral superconductivity evidenced in mesoscopic superconductors*
(13h05-13h30) 9.PS3.1.3. Yutaka Sasaki *Macroscopic Orbital Supercurrent along the Edge of Chiral Domain in Chiral Superfluid ^3He*	(13h05-13h20) 9.PS3.2.3. Jianlin Luo *Unconventional coherence peak in cuprate superconductors*	(13h05-13h20) 9.PS3.3.3. Chung-Hou. Chung *A mechanism for quantum-critical Planckian metal phase in high-temperature cuprate superconductors*	(12h55-13h10) 9.PS3.7.1. Tejas Singar *Lifshitz transition observed through vortex core spectroscopy in Bi-2212 superconductor*	(12h55-13h10) 9.PS3.5.3. Mengze Zhu *Continuum excitations in a triangular-lattice spin supersolid*	(12h55-13h10) 9.PS3.6.3. Kyungtae Kim *Fractional Quantum Hall Levitons*	(12h55-13h10) 9.PS3.7.3. Takeo Kato *Microscopic Theory of Spin Current Generation by Chiral Phonons*	(12h55-13h10) 9.PS3.8.3. Maxwell Freeman *Progress Towards a Low Temperature Superfluid 4He Josephson Junction using 2D Nanoporous Materials*	(12h55-13h10) 9.PS3.9.3. Amber Mozes *Microwave assisted scanning tunneling microscopy to probe local complex impedance of unconventional superconductors*
			(13h10-13h25) 9.PS3.4.4. Lev V Levitin *Identification of topological superconductivity in $YbRh_2Si_2$*				(13h10-13h25) 9.PS3.8.4. Camryn Undershute *Decoherence of Surface Phonons in a Quantum Acoustic System*	(13h10-13h25) 9.PS3.9.4. David Caldevilla-Asenjo *Experimental observation of Multiple Andreev Reflection at the interface with a spin-split superconductor*

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 4	
	Auditorium 2 level 4. Chair: Lieven Vandersypen	**Luxua 1 level 3. Chair Peter Hirschfeld**
15h45	(15h45-16h20) Eli Zeldov, *Visualizing isospin order and exchange interactions in rhombohedral graphene*	(15h45-16h20) Roser Valenti, *The revival of Fe-based superconductors: cascades of screening processes and their implications*
16h20	(16h20-16h55) Daniel Loss, *Spin Qubits in Semiconductors for Scalable Quantum Computers*	(16h20-16h55) Erez Berg, *Exotic Superconductivity in Graphene Multilayers*

16h55-17h25 Coffee

Saturday, 9 August, Afternoon Parallel Sessions

Room level 2 9.PS4.1. Theory and other condensates Chair: Jack Harris	**Room 1B level 5** 9.PS4.2. Quantum turbulence-I Chair: Xabier Rojas	**Auditorium 1 level 4** 9.PS4.3. Graphene and twisted systems-I Chair: Erez Berg	**Auditorium 2 level 4** 9.PS4.4. UTe_2-II Chair: Dai Aoki	**Luxua 1 level 3** 9.PS4.5. Spin chains, chiral magnets and superconductivity Chair: Celia Rogero	**Luxua 2 level 3** 9.PS4.6. Spin Ice and magnetic textures Chair: Yong Baek Kim	**Room 1A level 5** 9.PS4.7. Graphene and bound states at surfaces Chair: Andrea Young	**Room 2 level 5** 9.PS4.8. Josephson Physics Chair: Venkat Chandrasekhar	**Room 3 level 5** 9.PS4.9. Superconducting quantum circuits-III Chair: Erika Kawakami	**Room 4 level 5** 9.PS4.10. LT instrumentation and applications-II Chair: Nicola Paradiso
(17h25-17h50). 9.PS4.1.1. Jordi Boronat *Self-bound clusters of ultracold polar molecules*	(17h25-17h50). 9.PS4.2.1. Luca Galantucci *Quantum vortices leave a macroscopic signature in the thermal background*	(17h25-17h50). 9.PS4.3.1. Elena Bascones *Heavy fermions and cascades in twisted bilayer graphene: new results*	(17h25-17h50). 9.PS4.4.1. Johnpierre Paglione *Key issues in understanding the superconductivity of UTe_2*	(17h25-17h50). 9.PS4.5.1. Nicolas Lorente *Topological Character of Cr Spin Chains on Bi_2Pd*	(17h25-17h50). 9.PS4.6.1. Stephane Raymond *Uncommon magnetic order in the hyperkagome system $Yb_3Ga_5O_{12}$*	(17h25-17h50). 9.PS4.7.1. Chunli Huang *Momentum-Space AC Josephson Effect and Intervalley Coherence in Multilayer Graphene*	(17h25-17h50). 9.PS4.8.1. Manuel Houzet *Josephson quantum mechanics at odd parity*	(17h25-17h50). 9.PS4.9.1. Angela Kou *Using disordered superconductors to build qubits*	(17h25-17h50). 9.PS4.10.1. Duy Ha Nguyen *Advancing sensitive measurement techniques for the study of quantum materials at ultralow temperatures*
(17h50-18h05) 9.PS4.1.2. Alberto Villois *Breakdown of Superfluidity in Two-Dimensional Dipolar Bose-Einstein Condensates*	(17h50-18h15) 9.PS4.2.2. Andrei Golov *Quantum Turbulence Sampled by 1-6 μm Particles Down to the T = 0 Limit*	(17h50-18h05) 9.PS4.3.2. Ding Zhang *DC and AC Josephson effects in twisted cuprate bicrystals*	(17h50-18h05) 9.PS4.4.2. Andreas Kreisel *Detecting the nodal superconducting gap structure and topological surface states of UTe_2 with QPI*	(17h50-18h05) 9.PS4.5.2. Yusuke Masaki *Phase Transitions in Quantum Monoaxial Chiral Magnets under Tilted Magnetic Fields*	(17h50-18h05) 9.PS4.6.2. Félix Morineau *Satisfaction and violation of the fluctuation-dissipation relation in spin ice*	(17h50-18h05) 9.PS4.7.2. Mitali Banerjee *Graphene antidot in quantum Hall states*	(17h50-18h05) 9.PS4.8.2. Francisco Jesús Matute *Quantum circuits with multiterminal Josephson-Andreev junctions*	(17h50-18h05) 9.PS4.9.2. Xi Chen *Optimal Control and Shortcuts to Adiabaticity for Fast Qubit Readout in Circuit Quantum Electrodynamics*	(17h50-18h05) 9.PS4.10.2 Shuheng Pan *Development of an Ultra-Low Temperature High Magnetic Field Dual-Axile Rotational Scanning Tunneling Microscope*
(18h05-18h20) 9.PS4.1.3. Lev Melnikovski *Quantized Vortices in Multi-Component Superfluids*	(18h15-18h30) 9.PS4.2.3 Ken Obara *Superfluid Suction Vortex Generated by Fountain Effect*	(18h05-18h30) 9.PS4.3.3. Nils Krane *Engineering and Exploring Spin Excitations and Correlations in Open-Shell Nanographene Systems*	(18h05-18h30) 9.PS4.4.3. Brad Ramshaw *Searching for topological superconductivity in UTe_2 using ultrasound*			(18h05-18h30) 9.PS4.7.2. Katharina J. Franke *Wave-function engineering of Yu-Shiba-Rusinov states from magnetic atoms and molecules on superconductors*	(18h05-18h20) 9.PS4.8.3. Edouard Sonin *Theory of Planar Ballistic SNS Junctions at T = 0*	(18h05-18h30) 9.PS4.9.3. Pankaj Sethi *Scalable Fabrication of High-Performance Superconducting Qubits Using Native-Oxide Passivated Trilayer Junctions*	(18h05-18h20) 9.PS4.10.3. Yutaka Fujii *Development of Simultaneous Detection Method of Millimeter-Wave Electron Spin Resonance and Electrically-Detected Magnetic Resonance Signals of Phosphorous-doped Si*

Conference dinner at 20h00 Euskalduna Conference Centre, Abandoibarra 4, Bilbao

Sunday, 10 August

	Auditorium level 4
09h20	(09h20-09h30) Poster award presentation

	Auditorium level 4
	Plenary session 3. Chair: Paul C. Canfield
09h30	(09h30-10h15) Claudia Felser, *Chirality, Topology, and Spin-Orbit Interactions in Quantum Materials*
10h15	(10h15-11h00) Wolfgang Wernsdorfer, *Advancements in Cryogenics for Quantum Technologies: Scaling the Cold Frontier*

11h00-11h30 Coffee break and exhibition

	Semiplenary Session 5	
	Auditorium level 4. Chair Sebastian Bergeret	**Luxua 1 level 3. Chair Fernando Luis**
11h30	(11h30-12h05) Jose Ignacio Pascual, *Engineering spin configurations in graphene architectures*	(11h30-12h05) Natalia Ares, *Machine learning-based control and characterisation of quantum devices*
12h05	(12h05-12h40) Stuart Parkin, *Magnetic Tunnel Junctions and Josephson junctions using 2D van der Waals layers*	(12h05-12h40) Meng Wang, *High-temperature superconductivity in the Ruddlesden-Popper phase of nickelates*
12h40	(12h40-13h15) Seigo Tarucha, *High-Fidelity Qubit Gates and Phase Noise in Silicon Multi-qubit Devices*	(12h40-13h15) Elena Hassinger, *Mysteries of the two-phase superconductor* $CeRh_2As_2$
13h15	(13h15-13h50) Jukka P. Pekola, *Superconducting circuits as a platform for quantum thermodynamics experiments*	(13h15-13h50) Maia G. Vergniory, *The topological revival of Fe-based superconductors*

No lunch box will be offered this day. Time for networking, see also recommended excursions.

Monday, 11 August

	Auditorium level 4
	Plenary session 4. Chair Ramón Aguado
09h00	(09h00-09h45) Päivi Törmä, *Quantum Geometry and Superconductivity*
09h45	(09h45-10h30) Dai Aoki, *Spin-Triplet Superconductivity under Extreme Conditions in UTe_2*

10h30-11h00 Coffee break and exhibition

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

12h10-12h15 Room change to parallel sessions

Monday, 11 August, Morning Parallel Sessions

Room 1A level 5 11.PS5.1 He nanomechanics Chair: William P. Halperin	**Auditorium level 4** 11.PS5.2 Topological superconductivity-I Chair: Gabriela Pasquini	**Luxua 1 level 3** 11.PS5.3 Superconductivity and magnetism (COST superqumap.eu) Chair: Wolfgang Lang	**Luxua 2 level 3** 11.PS5.4 Magnons and superconductivity Chair: Rosa López	**Room 1B level 5** 11.PS5.5 Kagome magnets Chair: Jakob Nagl	**Room 2 level 5** 11.PS5.6 2D and quasi-2D Materials Chair: Paula Giraldo	**Room 3 level 5** 11.PS5.7 Correlated and low dimensional systems Chair: Pablo Burset	**Room level 2** 11.PS5.8 Novel and hybrid platforms-II Chair: Gloria Platero	**Room 4 level 5** 11.PS5.9 Thermometry and refrigeration techniques- I Chair: Hiroshi Fukuyama
(12h15-12h40). 11.PS5.1.1. Viktor Tsepelin *Interaction of NEMS with a Quantum Vortex in Superfluid-4*	(12h15-12h40). 11.PS5.2.1. Yukio Tanaka *Theory of full counting statistics in unconventional superconductor junctions*	(12h15-12h40). 11.PS5.3.1. Peter Samuely *Ising superconductivity in bulk 4Ha-$NbSe_2$*	(12h15-12h40). 11.PS5.4.1. María José Martínez *From Cavity - QED to Van der Waals – QED: magnons instead of photons*	(12h15-12h40). 11.PS5.5.1. Shota Suetsugu *Gapless spin excitations and gapped magnetization plateau phases in a spin-1/2 perfect kagome antiferromagnet*	(12h15-12h40). 11.PS5.6.1. Hélène Bouchiat *Probing orbital currents in 2D materials*	(12h15-12h40). 11.PS5.7.1. Armando Aligia *Topological quantum phase transition transition to a "non-Landau" Fermi liquid in a two-channel spin-1 anisotropic Kondo model and its experimental relevance*	(12h15-12h40). 11.PS5.8.1 Matias Urdampilleta *A foundry-fabricated spin qubit unit-cell with in-situ dispersive readout*	(12h15-12h40). 11.PS5.9.1. Christoforus Dimas Satrya *Thermal Spectrometer for Superconducting Circuits*
(12h40-12h55) 11.PS5.1.2. Riku Rantanen *Engineering topology in a superfluid through nanoscale confinement*	(12h40-12h55) 11.PS5.2.2. Hidemitsu Takahashi *Pressure-Induced Structural Anomaly in the Dirac Line-Nodal Material $CaSb_2$*	(12h40-12h55) 11.PS5.3.2. Jeroen Custers *Evidence for Coexistence of Magnetism and Superconductivity in Ce_3PtIn_{11}*	(12h40-12h55) 11.PS5.4.2. Sara Catalano *EuS Interfaces for Low Temperature Spintronics*	(12h40-12h55) 11.PS5.5.2. Zengwei Zhu *Field-linear anomalous Hall effect, magnetostriction, piezomagnetism and domain nucleation in a kagome antiferromagnet Mn3Sn*	(12h40-12h55) 11.PS5.6.2. Chengjie Zhou *Mapping the Mott and Generalized Wigner Crystal States in Twisted Bilayer MoS_2 by Quantum Well Resonant Tunneling Spectroscopy*	(12h40-12h55) 11.PS5.7.2. Tomáš Novotny *Double quantum dot Andreev molecules: numerical phase diagrams, critical evaluation of effective models, and identification of microscopic mechanisms*	(12h40-12h55) 11.PS5.8.2 Federico Fedele *Spin mechanical coupling and self-oscillations in a carbon nanotube electromechanical resonator*	(12h40-12h55) 11.PS5.9.2. Joel Hätinen *Nb-based tunnel junction refrigerators*
(12h55-13h20) 11.PS5.1.3. Oleg Kirichek *^{4}He and ^{3}He – ^{4}He mixture films studied by neutron reflectometry*	(12h55-13h10) 11.PS5.2.3. Nicholas Poniatowski *Detecting induced unconventional superconductivity with cQED*	(12h55-13h10) 11.PS5.3.3. Pavol Szabo *Disorder- and magnetic field-tuned fermionic superconductor-insulator transition in MoN thin films. Transport and STM studies.*	(12h55-13h10) 11.PS5.4.3. Ali Badreldin *A 200-mm Superconducting Platform for the Microwave Characterization of Magnetic Materials at Low Temperature*	(12h55-13h10) 11.PS5.5.3. Moyu Kato *Magnetism of novel kapellasite-type kagome antiferromagnet InCu3(OH)6Cl3*	(12h55-13h10) 11.PS5.6.3. Eudomar Rafael Henriquez *Biaxial Compressive Strain Tuning of Quantum Properties in 2D Materials*	(12h55-13h10) 11.PS5.7.3. Jose Torres *K·P model for moiré exciton trapping and polarization*	(12h55-13h10) 11.PS5.8.3 Claudio Bonizzoni *Perfect Absorption of Single-Photons for Quantum Technologies*	(12h55-13h10) 11.PS5.9.3. Dmitrii Lvov *Thermometry Based on a Superconducting Qubit*
	(13h10-13h25) 11.PS5.2.4. Ryo Okugawa *Gapless topological superconducting phases in two-dimensional quasicrystals*	(13h10-13h25) 11.PS5.3.4. Vladimir M. Fomin *Superconductor 3D Nanoarchitectures: A Playground for Novel Quantum Phenomena*			(13h10-13h25) 11.PS5.6.4. Reyes Calvo *Strain Engineering of Magnetoresistance and Magnetic Anisotropy in CrSBr*	(13h10-13h25) 11.PS5.7.4. Karol Izydor Wysokinski *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.*	(13h10-13h25) 11.PS5.8.4 Carolina Del Río *Remote polariton-polariton interactions mediated by superconducting circuits for quantum applications*	(13h10-13h25) 11.PS5.9.4. Libin Wang *Normal metal Coulomb Blockade Thermometer below 10 mK*

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 7	
	Auditorium 2 level 4. Chair J.C. Séamus Davis	**Luxua 1 level 3. Chair Jukka P. Pekola**
15h45	(15h45-16h20) Eun-Ah Kim, *Data-centric Approach to Quantum Materials using AI*	(15h45-16h20) Sebastian Will, *Molecular Quantum Liquids*
16h20	(16h20-16h55) Paul C. Canfield, *Collapsed tetragonal phase transitions as canaries*	(16h20-16h55) Dafei Jin, *Noise-resilient solid host for electron qubits above 100 mK*

16h55-17h25 Coffee

Monday, 11 August, Afternoon Parallel Sessions

Room 1A level 5 11.PS6.1 Superfluid Helium-III Chair: Viktor Tsepelin	**Auditorium1 level 4** 11.PS6.2 Nickelate, Kagome and other topical superconductors Chair: Pavol Szabo	**Auditorium2 level 4** 11.PS6.3 Collective modes and Quantum criticality Chair: Huiqiu Yuan	**Luxua1 level 3** 11.PS6.4 Vortex lattices and nanostructures (COST superqumap.eu) Chair: Peter Samuely	**Luxua2 level 3** 11.PS6.5 Correlated materials-II Chair: Mariela Menghini	**Room 1B level 5** 11.PS6.6 Magnetism and Exotic Spin States Chair: Stephane Raymond	**Room 2 level 5** 11.PS6.7 Quantum Transport-II Chair: Armando Aligia	**Room 3 level 5** 11.PS6.8 Superconducting devices/van der Waals materials Chair: Hélène Bouchiat	**Room level 2** 11.PS6.9 QC with semiconductor circuits Chair: Dafei Jin	**Room 4 level 5** 11.PS6.10 Thermometry and refrigeration techniques-II Chair: Agustín Camón
(17h25-17h50). 11.PS6.1.1. William P. Halperin *Magnetic susceptibility enhancement of superfluid ^{3}He-B in anisotropic confinement*	(17h25-17h50). 11.PS6.2.1. Xianhui Chen *Superconductivity and density wave transition in Ruddlesden–Popper phase nickelates*	(17h25-17h50). 11.PS6.3.1. Mohit Randeria *Andreev versus Tunneling Spectroscopy in Unconventional Flat Band Superconductors*	(17h25-17h50). 11.PS6.4.1. Gabriela Pasquini *Exploring the interplay between nematicity and superconductivity*	(17h25-17h50). 11.PS6.5.1. Hae-Young Kee *Microscopic Roadmap to a Kitaev-Yao-Lee Spin-Orbital Liquid*	(17h25-17h50). 11.PS6.6.1. Jakob Nagl *Ground-State Selection and Braided Ising Spin-Tubes in a new Family of Breathing Kagome Magnets*	(17h25-17h50). 11.PS6.7.1. Rose López *Quantum Kinetic Uncertainty Relations in Mesoscopic Conductors at Strong Coupling*	(17h25-17h50). 11.PS6.8.1. Pablo Burset *Single-Electron Charge Pulses in Superconducting Devices*	(17h25-17h50). 11.PS6.9.1. Guido Burkard *The singlet-triplet and exchange-only flopping-mode spin qubits*	(17h25-17h50). 11.PS6.10.1. Hiroshi Fukuyama *The Continuous Sub-millikelvin Refrigerator*
(17h50-18h15) 11.PS6.1.2. Priya Sharma *Towards a micromechanical qubit based on quantized oscillations in superfluid helium*	(17h50-18h05) 11.PS6.2.2. Qun Niu *Nematicity and orbital current order probed by transverse resistivity in Kagome metal thin flakes*	(17h50-18h05) 11.PS6.3.2. Hiroshi Watanabe *Theory of BCS-BEC Crossover in Strongly Correlated Electron Systems*	(17h50-18h05) 11.PS6.4.2. Anna Palau *Field-Induced Phase Transitions in Cuprate Superconductors for Cryogenic in-Memory Computing*	(17h50-18h05) 11.PS6.5.2. Simli Mishra *Simultaneous optical and thermodynamic investigation of $Ca_3Ru_2O_7$*	(17h50-18h05) 11.PS6.6.2. Kazushi Aoyama *Asymmetric spin-wave dispersion in a triple-Q chiral state of a breathing-kagome antiferromagnet*	(17h50-18h05) 11.PS6.7.2 Ignacio Casal *Ultrastrongly Coupled Gatemon Qubit*	(17h50-18h05) 11.PS6.8.2. Mykhailo Moskalets *An e-h superposition created on demand*	(17h50-18h05) 11.PS6.9.2. Irene Fernández de Fuentes *Running a six-qubit algorithm on a silicon spin qubit array*	(17h50-18h05) 11.PS6.10.2. Yasuyuki Shimura *Application of Adiabatic Demagnetization Refrigeration by Enlarged $YbCu_4Ni$ Alloy under Sub-Kelvin Temperature Region*
(18h15-18h40) 11.PS6.1.3. Xabier Rojas *Novel platforms for superfluid optomecanics*	(18h05-18h20) 11.PS6.2.3 Jose D Bermúdez *Scanning Tunneling Spectroscopy of FeSe Under in-plane Magnetic Fields*	(18h05-18h20) 11.PS6.3.3. Stefano Trivini *Role of Superconductor/graphene interface conductance in proximity effect*	(18h05-18h20) 11.PS6.4.3. Wolfgang Lang *Tailoring Vortex Behavior in High-Tc Superconductors via Periodic Defects Created by Focused Helium Ion Beams*	(18h05-18h20) 11.PS6.5.3. Takeshi Mito *Origin of Low-Temperature Magnetic Fluctuations in Kondo Insulator SmB_6 studied by 10B- and 11B-NMR measurements*	(18h05-18h20) 11.PS6.6.3. Sergei Zvyagin *High-field magnetic properties of the alternating ferro-antiferromagnetic spin-1/2 chain compound $Cu_2(OH)_3Br$*	(18h05-18h20) 11.PS6.7.3. Luca Magazzu *Thermal rectification in a qubit-oscillator system*	(18h05-18h20) 11.PS6.8.3. Maxim Ilyn *Epitaxial Van der Waals Heterostructures Magnetic Transition Metal Dihalides / Superconductor 2H-$NbSe_2$*	(18h05-18h20) 11.PS6.9.3. Kyle Castoria *Single Surface-Electron Sensing and CMOS Control Above 1 Kelvin*	(18h05-18h20) 11.PS6.10.3. Jasper Kölling *Accelerating cryogenic testing and characterization of quantum materials and devices with novel ADR cryostats*
(18h40-19h05) 11.PS6.1.4 Piotr Stasiak *Experimental and theoretical evidence of universality in vortex reconnections*	(18h20-18h35) 11.PS6.2.4 Masahiko Isobe *Crystal Growth of Nickelates for Potential High-Tc Superconductors*	(18h20-18h45) 11.PS6.3.4 Dirk Manske *Higgs Spectroscopy of Superconductors*	(18h20-18h45) 11.PS6.4.4 Milorad Milosevic *Advances in multiphysics simulations of superconducting electronics*	(18h20-18h45) 11.PS6.5.4 Yanina Fasano *How do atomic defects alter the electronic properties of Fe-based superconductors?*	(18h20-18h45) 11.PS6.6.4 Yong Baek Kim *Fractionalized excitations and emergent photons in dipolar-octupolar quantum spin ice*	(18h20-18h45) 11.PS6.7.4 Rubén Seoane *Towards Ideal Supercurrent Rectification in Josephson Junctions*	(18h20-18h45) 11.PS6.8.4 Guorui Chen *Correlated and topological states in ABC-stacking multilayer graphene*	(18h20-18h45) 11.PS6.9.4 Fernando Gonzalez Zalba *A quantum processor based on silicon spin qubits*	(18h20-18h45) 11.PS6.10.4 Marvin Klinger *Frustrated magnets for milli-Kelvin refrigeration*
			(18h45-19h10) 11.PS6.4.5. Dragana Popovic *Persistence of Vortexlike Phase Fluctuations in Underdoped to Heavily Overdoped Bi-2201 Cuprates*	(18h45-19h10) 11.PS6.5.5. Alix McCollam *Fermi surface reconstruction and non-Fermi liquid behavior near the ferromagnetic quantum phase transition in Fe(Ga1-xGex)3*	(18h45-19h00) 11.PS6.6.5. Syed Danish Nabi *Magnetic phase diagram and model Hamiltonian of Cs_2RuO_4*	(18h45-19h10) 11.PS6.7.4 Kuan-Hsun Chiang *Dual-qubit heat valve: an experimental study on collective quantum heat transport*	(18h45-19h10) 11.PS6.8.5. Wei Li *Interplay between Stripe-like Charge orders, Electronic Correlation and Majorana Bound States in 2M-WS_2*	(18h45-19h00) 11.PS6.9.5. Elizaveta Morozova *Onset of a quantum phase transition in a germanium quantum dot ladder*	(18h45-19h10) 11.PS6.10.5. Daria Szewczyk *Heat Capacity Investigations of Benzene Derivatives: Exploring the Mechanism Behind Glassy Anomalies in Quasiplanar Molecular Crystals*

Tuesday, 12 August

	Auditorium level 4
08h50	(08h50-09h00) Poster award presentation

	Auditorium level 4
	Plenary session 5. Chair Jean Pascal Brison
09h00	(09h00-09h45) Joseph Checkelsky, *Natural Superlattice Materials and Modulated Superconductivity*
09h45	(09h45-10h30) Jörg Schmalian, *Superconductivity and Loop Currents: from Cuprates to Kagome Metals*

10h30-11h00 Coffee break and exhibition

	Semiplenary Session 8	
	Auditorium level 4. Chair Makoto Tsubota	**Luxua 1 level 3. Chair Benjamin Sacépé**
11h00	(11h00-11h35) JP Davis, *Superfluid ^{3}He Electromechanics*	(11h00-11h35) Ramón Aguado, *Novel qubits based on hybrid semiconductor-superconductor Josephson junctions*
11h35	(11h35-12h10) Yong-Hamb Kim, *Magnetic microcalorimeters for large-scale astroparticle physics applications*	(11h35-12h10) Christoph Strunk, *Berezinski-Kosterlitz-Thouless transition in strongly disordered NbN films close to the localization threshold*

12h10-12h15 Room change to parallel sessions

Tuesday, 12 August, Morning Parallel Sessions

Room 1A level 5 12.PS7.1. Quantum turbulence II Chair: Ladislav Skrbek	**Auditorium level 4** 12.PS7.2. Kagome SC Chair: Maria Iavarone	**Luxua1 level 3** 12.PS7.3. Thin film and interfaces-II (COST superqumap.eu) Chair: Jeroen Custers	**Luxua2 level 3** 12.PS7.4. Correlated materials-III Chair: Yanina Fasano	**Room 1B level 5** 12.PS7.5. Strongly correlated magnets-II Chair: Martin Klanjsek	**Room 2 level 5** 12.PS7.6. Physical Effects in Nanoscale and Quantum Materials Chair: Gabor Csathy	**Room 3 level 5** 12.PS7.7. Josephson and hybrid superconducting systems Chair: Manuel Houzet	**Room level 2** 12.PS7.8. Novel and hybrid platforms-III Chair: Matias Urdampilleta	**Room 4 level 5** 12.PS7.9. Thermometry and refrigeration techniques-III Chair: Miguel Ángel Ramos
(12h15-12h40). 12.PS7.1.1. Ryuji Nomura *Quantum Dripping of Superfluid Pendant Droplets*	(12h15-12h40). 12.PS7.2.1 Rina Tazai Multi-stage Phase Transitions and Non-Reciprocal Transport in Kagome Superconductors AV_3Sb_5	(12h15-12h40). 12.PS7.3.1 Floriana Lombardi *Ground State Engineering in Ultrathin YBCO via Nanostructured Surfaces: Enhanced Superconductivity, Nematicity, and Unidirectional Charge Order*	(12h15-12h40). 12.PS7.4.1 Mariela Menghini *Mott resistive switching in an antiferromagnetic insulator initiated by topological defects*	(12h15-12h40). 12.PS7.5.1 Grace Causer *One-dimensional magnetic soliton layers in a cubic chiral magnet*	(12h15-12h40). 12.PS7.6.1 Makoto Naka *Spin-splitting and cross-correlation in altermagnets*	(12h15-12h40). 12.PS7.7.1 Venkat Chandrasekhar *Searching for signatures of non-trivial topology in diffusive, multiterminal Josephson junctions*	(12h15-12h40). 11.PS7.8.1. Gloria Platero *Topological edge states for quantum information transfer*	(12h15-12h40). 12.PS7.9.1 Jian Huang *Development of a new magnetic refrigeration method for achieving low temperatures below one-Kelvin without using the helium-3*
(12h40-12h55) 12.PS7.1.2 Hiromitsu Takeuchi *Eccentric fractional skyrmions from quantum Kelvin-Helmholtz instability*	(12h40-12h55) 12.PS7.2.2 Ben-Chuan Lin *Spin-polarized p-wave superconductivity in the kagome material RbV_3Sb_5*	(12h40-12h55) 12.PS7.3.2 Yufan Li *Determination of spin-triplet superconductivity with phase-sensitive experiments*	(12h40-12h55) 12.PS7.4.2 Vesna Mitrovic *Orbital glass conceals missing magnetic entropy in a relativistic Mott insulator*	(12h40-12h55) 12.PS7.5.2 Guratinder Kaur *Magnetoelastic dynamics in Spin-Jahn Teller driven antiferromagnet: CoTi2O5*	(12h40-12h55) 12.PS7.6.2 Robin Dolleman *Continuous sub-millikelvin cooling of nanoelectronic devices using a Wigner crystal*	(12h40-12h55) 12.PS7.7.2 Meydi Ferrier *Supercurrent noise in a phase-biased superconductor - normal ring in thermal equilibrium*	(12h40-12h55) 11.PS7.8.2. Pomaransk David *Time-bin architecture for electronic qubits with quantum-Hall edge channels*	(12h40-12h55) 12.PS7.9.2 Shu Guo *Quantum Fluctuation enhanced Millikelvin Magnetic Refrigeration in Triangular Lattice Magnet*
(12h55-13h10) 12.PS7.1.3 Yosuke Minowa *Kelvin wave excitation on quantized vortices in superfluid helium*	(12h55-13h10) 12.PS7.2.3 Shingo Yonezawa *Field-angle-resolved calorimetry of the pristine and Nb-substituted CsV_3Sb_5 Kagome superconductors*	(12h55-13h10) 12.PS7.3.3 Che-H Ku *Point-contact Andreev-reflection spectroscopy of compressed superconducting thin flakes inside a diamond anvil cell*	(12h55-13h10) 12.PS7.4.3 Changhee Lee *Odd-parity itinerant antiferromagnets by space group symmetry*	(12h55-13h10) 12.PS7.5.3 Kiyu Fukui *Unveiling new magnetic phases in 3D extended Kitaev models*	(12h55-13h10) 12.PS7.6.3 Alexandre Delattre *Low temperature fluctuations of a mesoscopic mechanical mode*	(12h55-13h10) 12.PS7.7.3 Jose Antonio Moreno *Feedback driven Josephson microscope*	(12h55-13h10) 11.PS7.8.3. Li Lu *Experimental exploration of the Fu-Kane scheme of topological quantum computation*	(12h55-13h10) 12.PS7.9.3 Clement Geffroy *An ultra-compact dilution refrigerator for rapid quantum device characterization and education*
(13h10-13h25) 12.PS7.1.4 Pertti Hakonen *Quantum fluctuations in helium adsorbed on nanotube*	(13h10-13h25) 12.PS7.2.4 Hiroshi Kontani *Unconventional density waves, exotic superconductivity and quantum criticality in kagome metals and bilayer nickelate superconductors*	(13h10-13h25) 12.PS7.3.4 Koichiro Ienaga *Quantum and Thermal Fluctuations in Two-Dimensional Superconductors studied by the Nernst effect*	(13h10-13h25) 12.PS7.4.4 Ying-Ming Xie *Photon-drag photovoltaic effects and quantum geometric nature*	(13h10-13h25) 12.PS7.5.4 Slavomir Gabani *Evidence for ferrons formation in the heavy fermion metal CeB_6 with dynamic charge stripes*	(13h10-13h25) 12.PS7.6.4 Zhiqiang Hu *Local Characterization of Electric Field Induced Dielectric Constant Changes in $(Ba,Sr)TiO_3$ Detected by Microwave Impedance Microscopy*	(13h10-13h25) 12.PS7.7.4 Andrei Mazanik *Interfacial spin-orbit coupling in superconducting hybrid systems*	(13h10-13h25) 11.PS7.8.4. Giacomo Marmorini *Spiral quantum state tomography of quantum many-body states and entanglement measurement*	(13h10-13h25) 12.PS7.9.4 Andrew Fefferman *Aluminum nuclear-demagnetization refrigerator for continuous cooling below 1 mK*

13h25-14h00 Lunch

14h00-15h45 Poster session

	Semiplenary Session 9	
	Auditorium 2 level 4. Chair Floriana Lombardi	**Luxua 1 level 3. Chair Richard Haley**
15h45	(15h45-16h20) Rebeca Ribeiro, *Impact of the angular alignment on the crystal field and intrinsic doping of bilayer graphene/BN heterostructures*	(15h45-16h20) Javad Shabani, *Gate-tunable Superconducting Diode Effect*
16h20	(16h20-16h55) Francisco Guinea, *Superconductivity in graphene stacks*	(16h20-16h55) Vladimir Eltsov, *Nanomechanical probes of vortex dynamics in quantum fluids*

16h55-17h25 Coffee

Tuesday, 12 August, Afternoon Parallel Sessions

Room 1A level 5 12.PS8.1. Superfluid helium-IV Chair: Manuel Arrayas	**Auditorium 1 level 4** 12.PS8.2. Thin films and interfaces-III (COST superqumap.eu) Chair: Thilo Bauch	**Auditorium 2 level 4** 12.PS8.3. Oxides and arsenides Chair: Javier Villegas	**Luxua 1 level 3** 12.PS8.4. Nickelates-II Chair: Yukio Tanaka	**Luxua 2 level 3** 12.PS8.5. Topological States, and Anomalous Hall Effect Chair: Gemma Rius	**Room 2 level 5** 12.PS8.6. Topology and Quantum Materials-III Chair: Javad Shabani	**Room 1B level 5** 12.PS8.7. Topological and unconventional superconductivity Chair: Shuqiu Wang	**Room 3 level 5** 12.PS8.8. Low dimensional systems Chair: Makoto Naka	**Room level 2** 12.PS8.9. Superconducting quantum circuits-IV Chair: Anasua Chatterjee	**Room 4 level 5** 12.PS8.10. LT detectors-II Chair: Jian Huang
(17h25-17h50). 12.PS8.1.1. Junko Taniguchi *Property of superfluid and flow of ^4He confined in a nanometer-sized channel*	(17h25-17h50). 12.PS8.2.1. Maria Iavarone *Engineering Nb-Au Interfaces for Superconducting Qubits*	(17h25-17h50). 12.PS8.3.1. Yoshiteru Maeno *Bridging various strain-related responses of superconducting Sr_2RuO_4*	(17h25-17h50). 12.PS8.4.1. Kazuhiko Kuroki *Theoretical study on high Tc unconventional superconductivity in multilayer nickelates $La_3Ni_2O_7$ and $La_4Ni_3O_{10}$*	(17h25-17h50). 12.PS8.5.1. Paula Giraldo *Fermiology of the charge density wave compound $TaTe_4$ and its signatures of non-trivial topological states*	(17h25-17h50). 12.PS8.6.1. Wei-Li Lee *Nonlinear and nonreciprocal transport effects in untwinned thin films of topological Weyl metal $SrRuO_3$*	(17h25-17h50). 12.PS8.7.1. Miguel Angel Cazalilla *Probing Magnetic and Triplet Correlations in Spin-Split Superconductors with Magnetic Impurities*	(17h25-17h50). 12.PS8.8.1. Georgios Katsaros *Charge and spin in planar Germanium*	(17h25-17h50). 12.PS8.9.1. Simone Gasparinetti *Quantum thermodynamics with superconducting circuits: fundamental insights and applications*	(17h25-17h50). 12.PS8.10.1. Sergey Kubatkin *Sensing microwave photons with scalable epitaxial graphene bolometers*
(17h50-18h05) 12.PS8.1.2. Igor Zaliznyak *Bogolyubov-Feynman-Pitaevskii spectrum and decays of phonon-roton quasiparticles in superfluid helium*	(17h50-18h05) 12.PS8.2.2. Nofar Fridman *Anomalous Thickness Dependence of the Vortex Pearl Length in Few-Layer $NbSe_2$*	(17h50-18h05) 12.PS8.3.2. Ilya Sochnikov *Superelastic Microstructures of Superconducting Strontium Titanate*	(17h50-18h05) 12.PS8.4.2. Yu-Te Hsu *Transport phase diagram and anomalous metallicity in superconducting infinite-layer nickelates*	(17h50-18h05) 12.PS8.5.2. Hiroaki Ishizuka *Chirality-related anomalous hall effect in pyrochlore magnets*	(17h50-18h05) 12.PS8.6.2. Armand Devillez *Bond-dependent interactions and ill-ordered state in the honeycomb cobaltate $BaCo_2(AsO_4)_2$*	(17h50-18h05) 12.PS8.7.2. Viktoriia Kornich *Non-Hermitian superconductivity: stability, generation and detection*	(17h50-18h05) 12.PS8.8.2. Andreas K. Hüttel *Transport spectroscopy of MoS_2 nanotube quantum dots*	(17h50-18h05) 12.PS8.9.2. Shohei Miyakoshi *Advancing Quantum Circuit Optimization Through Density Matrix Renormalization Group Techniques*	(17h50-18h05) 12.PS8.10.2. Kelvin Ramos *Development of photon detectors based on granular aluminum superconducting resonators*
(18h05-18h20) 12.PS8.1.3. Emil Varga *Decay of Two-Dimensional Quantum Turbulence*	(18h05-18h20) 12.PS8.2.3. Michal Šindler *Vortex mass in high-Tc superconductors*	(18h05-18h30) 12.PS8.3.3. Changhee Lee *Superconductivity and Antiferromagnetism in $CeRh_2As_2$: Unification through type-II van Hove singularity*	(18h05-18h20) 12.PS8.4.3. Daoxin Yao *Models and superconductivity of bilayer and trilayer nickelate superconductors*	(18h05-18h20) 12.PS8.5.3. Sugata Chowdhury *Understanding the Quantum Anomalous Hall Effect (QAHF) in 2D-UOTe*	(18h05-18h20) 12.PS8.6.3. Miguel Angel Ramos *Quest for amorphous superconductors of Bi–Sb alloys by irradiation with swift heavy ions*	(18h05-18h20) 12.PS8.7.3. Celia González *Signatures of edge states in antiferromagnetic van der Waals Josephson junctions*	(18h05-18h20) 12.PS8.8.3. Akong Loh *Microwave optomechanics with a carbon nanotube nano-electromechanical resonator*	(18h05-18h30) 12.PS8.9.3. Shingo Kono *Scalable Superconducting Circuit Optomechanics with Millisecond Quantum Coherence*	(18h05-18h20) 12.PS8.10.3. Carlos Pobes *Cryogenic radiation detectors based on Transition Edge Sensors*
(18h20-18h45) 12.PS8.1.4. Ladislav Skrbek *Critical Velocities in Flows of Superfluid ^4He*	(18h20-18h45) 12.PS8.2.4. Matthias Eschrig *Purely even harmonic Josephson currents due to crossed equal-spin pair transmission*	(18h30-18h55) 12.PS8.3.4. Javier Landaeta *Quantum oscillations of Sr_2RuO_4 under c-axis uniaxial stress*	(18h20-18h45) 12.PS8.4.4. Huiqiu Yuan *From Heavy Fermions to Nickelates: Superconductivity, Quantum Criticality, and Strange Metals*	(18h20-18h45) 12.PS8.5.4. Nandini Trivedi *Detection of anyon braiding through pump-probe spectroscopy*	(18h20-18h45) 12.PS8.6.4. Martin Klanjsek *Kitaev and Dirac Quantum Spin Liquids in Honeycomb Magnets*	(18h20-18h45) 12.PS8.7.4. Jelena Klinovaja *From perfect to imperfect poor man's Majoranas in minimal Kitaev chains*	(18h20-18h45) 12.PS8.8.4. Gabor Csathy *Non-Coulombic Short-Range Potentials and Competing Orders in the Two-dimensional Electron Gas*	(18h30-18h55) 12.PS8.9.4. Wilfrid Poirier *A primary quantum current standard for the Ampere*	(18h20-18h45) 12.PS8.10.4. David Tanner *Search for dark-matter axions*
(18h45-19h00) 12.PS8.1.5. Luca Cavicchioli *Formation of Multiple Quantum Droplets through Capillary Instability*	(18h45-19h00) 12.PS8.2.5. Maciej Zgirski *A single superconducting vortex on a leash.*	(18h55-19h20) 12.PS8.3.5. Hilary Noad *Thermodynamic Measurements of Sr_2RuO_4 under Uniaxial Stress*	(18h45-19h00) 12.PS8.4.5. Daisuke Inoue *Unconventional SDW+CDW order and superconductivity in bilayer nickelate: intra/inter-layer bond-order fluctuations mediated pairing mechanism*	(18h45-19h00) 12.PS8.5.5. Guillaume Gervais *Observation of Temperature-Independent Anomalous Hall Effect in Thin Bismuth from Near Absolute Zero to 300 K Temperature*					

Wednesday, 13 August

	Auditorium level 4
08h50	(08h50-09h00) Poster award presentation

	Auditorium level 4
	Plenary session 6. Chair Francisco (Paco) Guinea
09h00	(09h00-09h45) Makoto Tsubota, *Quantum Hydrodynamics and Turbulence: A Journey from Legacy to Future*
09h45	(09h45-10h30) Pablo Jarillo Herrero, *The Magic of Moiré Quantum Matter*

10h30-11h00 Coffee break and exhibition

Room 1A level 5 13.PS9.1. Interactions and condensates Chair: Fernando Sols	**Luxua2 level 3** 13.PS9.2. Cuprates-II Chair: Milorad Milosevic	**Luxua1 level 3** 13.PS9.3. Thin films and interfaces-IV Chair: Sergey Kubatkin	**Auditorium level 4** 13.PS9.4. Graphene and twisted systems-II Chair: Dima Geshkenbein	**Room 1B level 5** 13.PS9.5. Topology and Quantum Materials-IV Chair: Wei Li	**Room 2 level 5** 13.PS9.6. Unconventional Effects in Superconducting Junctions Chair: Jelena Klinovaja	**Room 3 level 5** 13.PS9.7. Topology and quantum transport Chair: Miguel Angel Cazalilla	**Room level 2** 13.PS9.8. Quantum simulation	**Room 4 level 5** 13.PS9.9. Thermometry and refrigeration techniques-IV Chair: David Tanner
(11h00-11h25). 13.PS9.1.1. Lev Haldar Kendrick *Emergent physics at ultralow temperatures in a Fermi-Hubbard quantum simulator*	(11h00-11h25). 13.PS9.2.1. Javier Villegas *SPersistent photoresponse of oxide superconductors*	(11h00-11h25). 13.PS9.3.1. Jian Wang *Discovery of higher charge superconductivity beyond charge-2e Cooper pairs*	(11h00-11h25). 13.PS9.4.1. Dimitri Efetov *Revealing electron-electron interactions in graphene at room temperature with the quantum twisting microscope*	(11h00-11h25). 13.PS9.5.1. Masatoshi Sato *Callan-Rubakov effects in topological insulators*	(11h00-11h25). 13.PS9.6.1. Fanming Qu *Boundary supercurrent and continuous non-integer Shapiro steps in $NiTe_2$-based Josephson junctions*	(11h00-11h25). 13.PS9.7.1. Christian Spanslatt *Electrical noise spectroscopy of magnons in a quantum Hall ferromagnet*	(11h00-11h25). 13.PS9.8.1. Yu-Ao Chen *Quantum Simulation with Ultracold Atoms*	(11h00-11h25). 13.PS9.9.1. Richard Haley *Cooling nanoelectronic devices to the sub-mK regime*
(11h25-11h50) 13.PS9.1.2. Daniel Barredo *Exploring quantum magnetism with dipolar Rydberg atom arrays*	(11h25-11h50) 13.PS9.2.2 David Leboeuf *Strange metal and spin fluctuations in cuprate superconductors*	(11h25-11h50) 13.PS9.3.2 Xianggang Qiu *Visualization of skyrmion-superconducting vortex pairs in a chiral magnet-superconductor heterostructure*	(11h25-11h40) 13.PS9.4.2 Zhen Zhan *Robust flat bands in twisted trilayer graphene*	(11h25-11h50) 13.PS9.5.2 Masaki Uchida *In-plane anomalous Hall effect in magnetic Weyl semimetal films*	(11h25-11h50) 13.PS9.6.2 Pertti Hakonen *Experiments on 1/f noise in normal and superconducting low-dimensional conductors*	(11h25-11h50). 13.PS9.7.2. Alfredo Levy Yeyati *Emergent topology by Landau level mixing in quantum Hall-superconductor nanostructures*	(11h25-11h50) 13.PS9.8.2 Haohua Wang *Multiqubit superconducting platform for simulating quantum many-body physics*	(11h25-11h50) 13.PS9.9.2 Andrew Casey *Immersion cooling quantum materials and quantum devices to sub-mK*
(11h50-12h05) 13.PS9.1.3. Daisuke Yamamoto *Entropy engineering in SU(N) cold atoms for simulating strongly correlated electron systems*		(11h50-12h05) 13.PS9.3.3. Laura Greene *Planar Tunnel Spectroscopy of $CeCoIn_5$: Investigation of local-moment pairing.*		(11h50-12h05) 13.PS9.5.3. Kristiana Frei *Half-quantized Hall Plateaus in the Confined Geometry of Graphene*	(11h50-12h05) 13.PS9.6.3. Shohei Kobayashi *Phase control of fermion parity in a quantum dot Josephson junction*	(11h50-12h05) 13.PS9.7.3 Anqi Wang *Observation of topological Anderson Chern insulator phase in $MnBi_4Te_7$ monolayer*	(11h50-12h05) 13.PS9.8.3. Yue Ban *Digital Quantum Simulation of Fermionic Lattice Models with Counterdiabatic Ansatz*	(11h50-12h05) 13.PS9.9.3 Omid Sharifi *Cooling and thermometry of a semiconductor 2D gas down to 1 mK*

12h05-12h10 Move to Auditorium level 4

	Auditorium Level 4
	Award of IUPAP early career scientist prize in low temperature physics. Presenter Richard Haley
12h10	(12h10-12h40) Anasua Chatterjee, *Increasing the complexity of semiconductor quantum devices*
12h40	(12h40-13h10) Shuqiu Wang, *Quasiparticle Scattering Interference Imaging of Topological Superconductivity in UTe_2*
13h10	**Closing**

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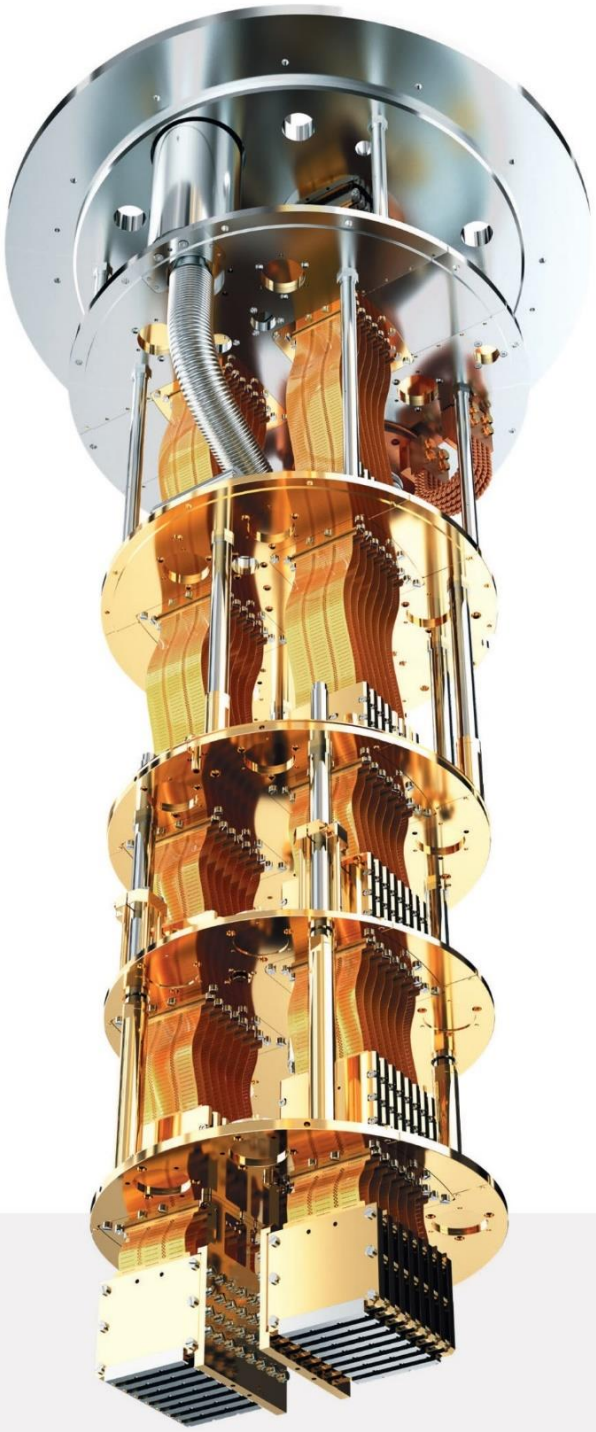

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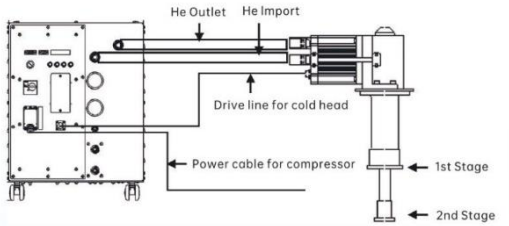
Cryocooler & Helium Compressor



Fields Magnets

Field	3T	5T	9T	12T	14T	16T
Cooling Method	WET/DRY	WET/DRY	WET/DRY	WET/DRY	WET/DRY	WET/DRY
Cold Bore Diameter – mm	80	100	70/80	70	70	56
Field Homogeneity over 10mm DSV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Persistent Mode Switch	Optional	Optional	Optional	Optional	Optional	Optional

14T70

BMC422 Performance Parameter		
Extreme temperature		< 3.5K
(50HZ) Cooling capacity	1st Stage	60W@50K
	2nd Stage	2.2 W @ 4.2 K
Cooldown time		<60min
Maintenance time		10000h
Weight		22kg

HC 800 Helium Compressor Parameter

Equalize pressure	1.6±0.1MPa	Cooling water	Water cooling Flow rate ≥6.5L/min@23°C Pressure 0.1MPa ~0.7MPa Temperature 8°C~ 35°C
Voltage	380V @ 50Hz 415V @ 50Hz 440V @ 60Hz 480V @ 60Hz 3 Phase	Protection	Overheat protection Pressure protection
Input power	9KW	Dimensions	500x580x725mm
Ambient temperature	5℃~40℃	Maintenance time	25000h

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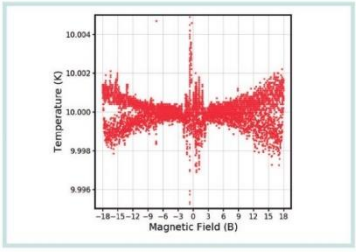
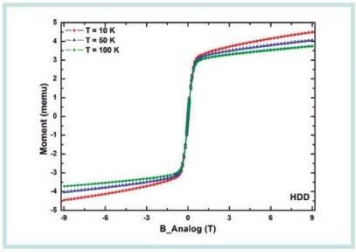


Magnetization as a function of magnetic field for HDD at T = 10 K, 50 K and 100 K



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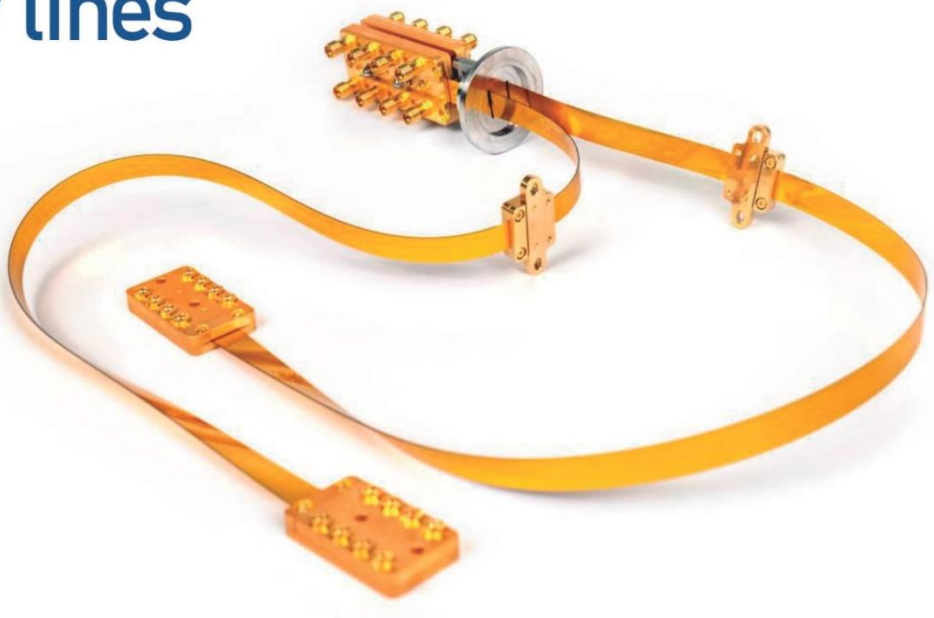

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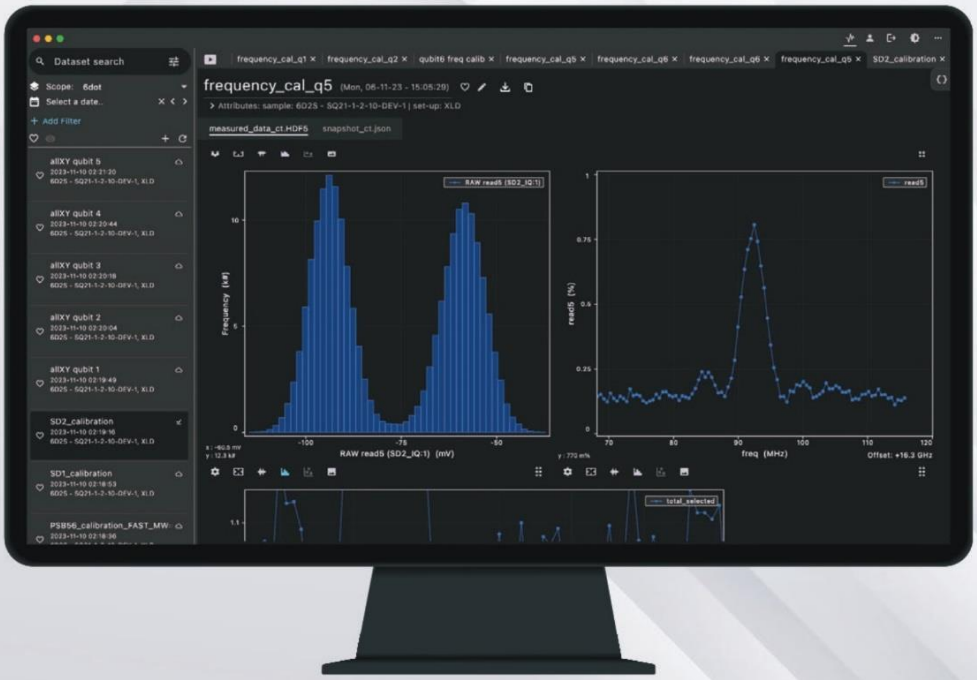

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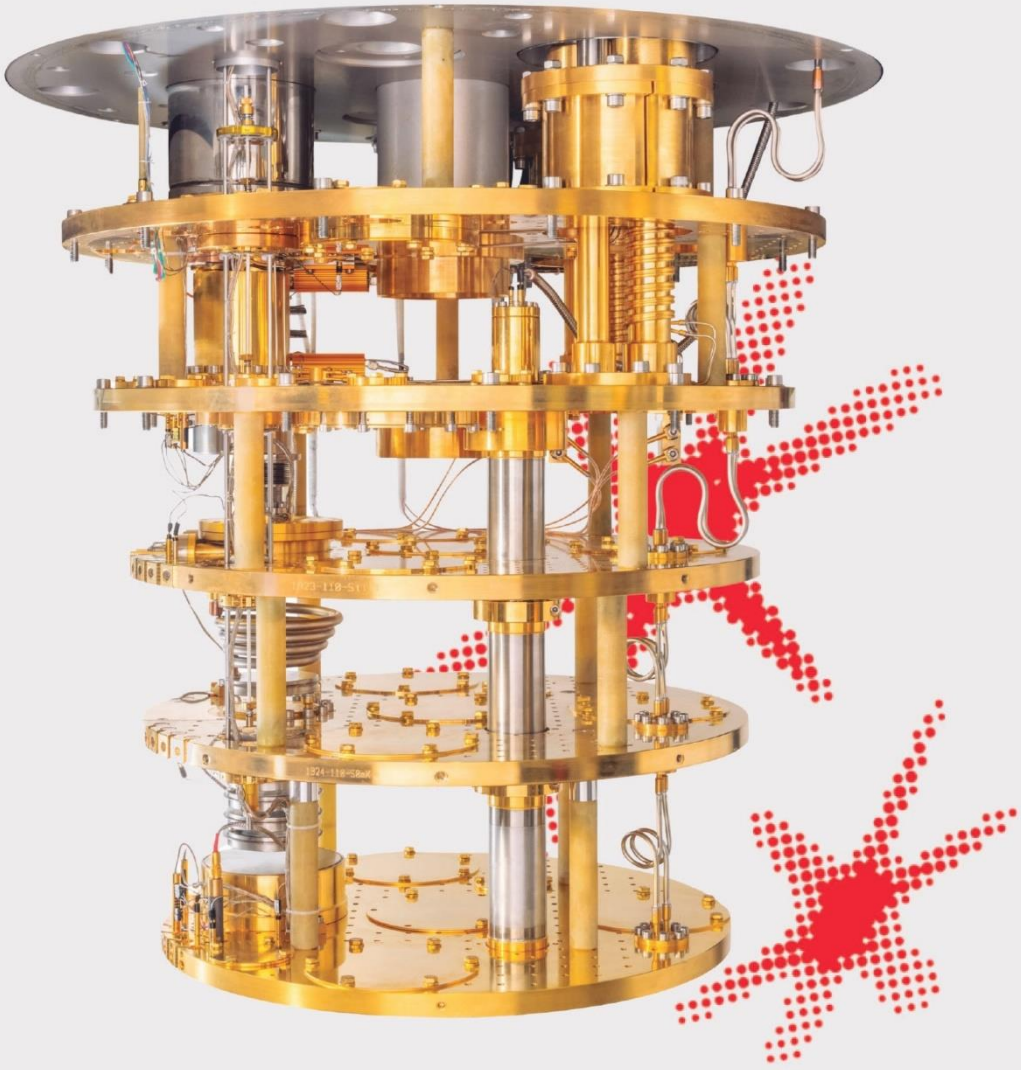

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