



21-25th April 2024

#SuperQumap

European School on Superconductivity and Magnetism in Quantum Materials.

www.superqumap.eu



#ESSM24

SUNDAY 21st

15h00 Arrival and Registration

20h00 *Dinner***MONDAY 22nd**

08h45 **José J. BALDOVÍ-** ICMol, University of Valencia
Hermann SUDEROW- University Autónoma de Madrid
Opening of the 1st European School on Superconductivity and Magnetism in Quantum Materials

09h00 **Jairo SINOVA-** Johannes Gutenberg Uni. Mainz (DE)
Introduction to altermagnetism and spin symmetries

11h00 *Coffee break*

11h30 **Marcos H.D. GUIMARÃES-** University of Groningen (NL)
Introduction to 2D magnetic materials and manipulation of their magnetization

13h30 *Lunch*

15h00 **Iurii TIMROV-** Paul Scherrer Institut (CH)
Modeling magnetic materials using advanced DFT functionals: Hubbard, hybrids, and meta-GGA

17h00 *Coffee break*

17h30 **Annica BLACK-SCHAFFER-** Uppsala University (SE)
Fundamentals of topological superconductivity

20h00 *Dinner*21h30 **Poster Session I****TUESDAY 23rd**

09h00 **Milorad MILOSEVIC-** University of Antwerpen (BE)
Ginzburg-Landau theory of superconductivity: from basics to applications

11h00 *Coffee break*

11h30 **Dieter KOELLE-** University of Tübingen (DE)
Josephson junctions and superconducting quantum interference devices (SQUIDS)

13h30 *Lunch*

15h00 **Elena HASSINGER-** TU Dresden Technical University (DE)
Thermodynamic and transport experiments on the ground state of strongly correlated electron systems

17h00 *Coffee break*

17h30 **Aline RAMIRES-** Paul Scherrer Institut (CH)
Standard classification of superconducting order parameters from the point group perspective

20h00 *Dinner*21h30 **Poster Session II****WEDNESDAY 24th**

09h00 **Eugenio CORONADO-** ICMol, University of Valencia (ES)
2D Magnetic heterostructures: from twisted magnets to smart molecular/2D heterostructures

09h30 **Yulia MAXIMENKO-** Colorado State University (US)
Quantifying unconventional magnetism in devices using scanning tunneling microscopy

Núria ALCALDE-HERRAIZ- Chalmers University of Technology (SE)
Engineering underdoped CuO₂ nanoribbons in nn-thick a-axis YBa₂Cu₃O_{7-δ} films

10h00 (12'+3') **Jazmín ARAGÓN SÁNCHEZ-** Università degli Studi di Roma Tor Vergata (IT)
Structural and electronic characterization of atomic defects in FeSe_{1-x}S_x superconductor: STM and DFT study

Javier CORRAL-SERTAL- CiQUS, University of Santiago de Compostela (ES)
Temperature and Thickness Dependence of the Thermal Conductivity in 2D Ferromagnet Fe₃GeTe₂

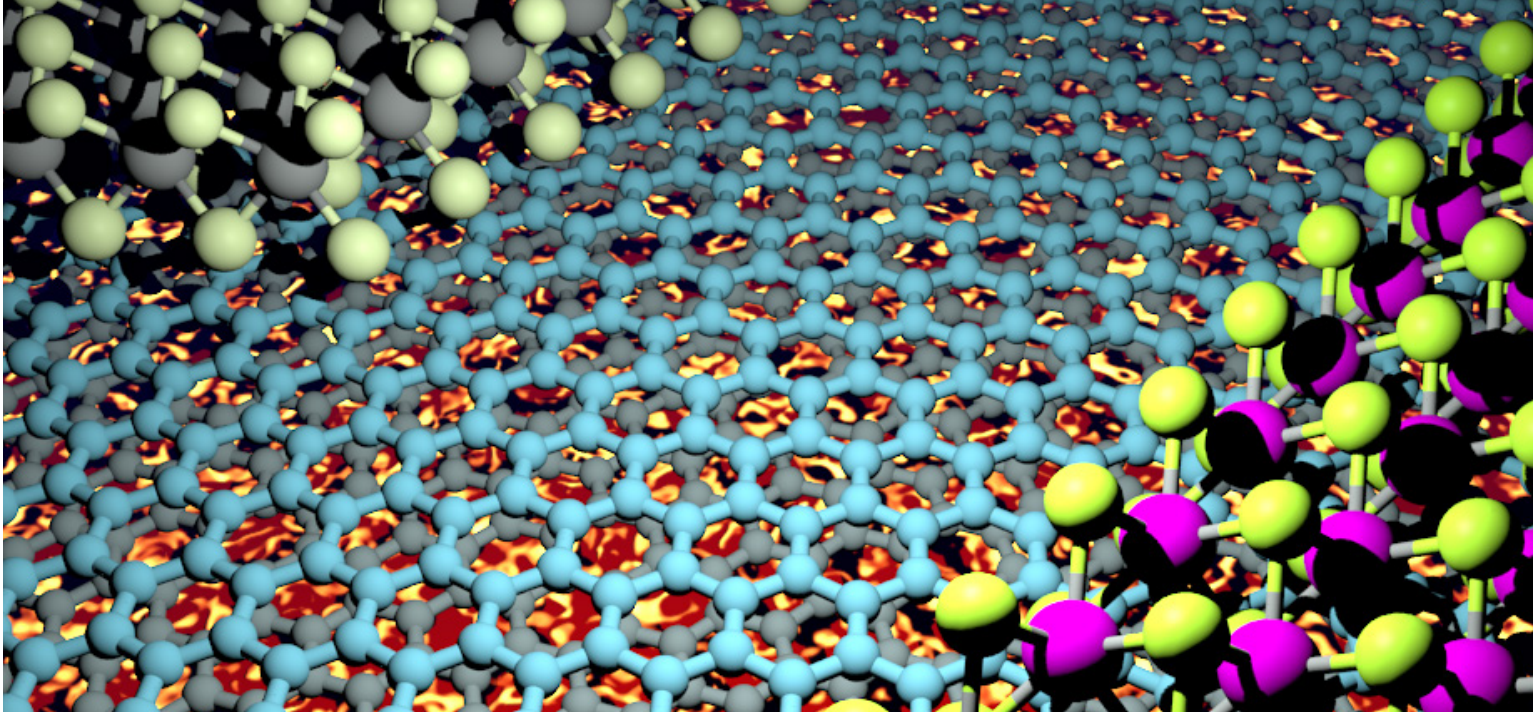
Yelko DEL CASTILLO- Int. Iberian Laboratory (PT)
Probing spin fractionalization with absolute magnetometry ESR-STM

11h00	<i>Coffee break</i>	
11h30	Peter LILJEROTH- Aalto University (FI)	<i>Visualizing designer quantum states in van der Waals heterostructures</i>
13h30	<i>Lunch</i>	
15h00	Discussions and networking	
21h00	<i>Dinner</i>	

THURSDAY 25th

09h00	Alfredo LEVY YEYATI- University Autónoma de Madrid (ES)	<i>Mesoscopic superconductivity: From Andreev transport to Andreev qubits</i>
11h00	<i>Coffee break</i>	
11h30 (12'+3')	Alessia GARIBALDI- Chalmers University of Technology (SE)	<i>Ex-situ techniques for grain boundary-based Josephson junction optimization</i>
	Konrad NOROWSKI- Polish Academy of Sciences (PL)	<i>Quantum thermodynamics with a single superconducting vortex</i>
	Meike PFEIFFER- Dresden University of Technology (DE)	<i>Resistivity and heat capacity studies under hydrostatic pressure in the locally non-centrosymmetric superconductor CeRh₂As₂</i>
	Varun RAJEEV PAVIZHAKUMARI- Technical University of Denmark (DK)	<i>Evaluating the critical temperatures for ferromagnetic order in solids: beyond the random phase approximation</i>
	Johanne Bratland TJERNSHAUGEN- Norwegian University of Science and Technology (NO)	<i>Superconducting phase diagram and spin diode effect via spin accumulation</i>
	Beatriz VINA-BAUSA- University Autónoma of Madrid (ES)	<i>Controlling magnetic interactions between S=1/2 spins at unusually large distances</i>
	Diego LÓPEZ-ALCALÁ- ICMol, University of Valencia (ES)	<i>Exploring magnetic insulator proximity effect in 2D biphenylene network from first-principles calculations</i>
13h30	<i>Lunch</i>	
15h00	Departure	

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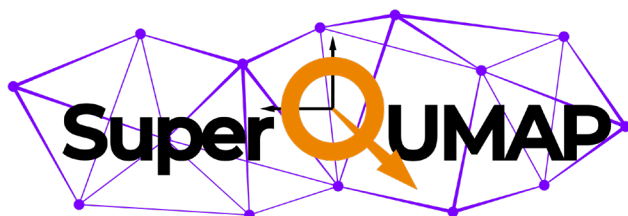
thanks for coming!

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