



Day 1: July 8 Opening & Workshops

8:30 - 9:00	Registration	
9:00 - 9:20	Opening Remarks & Welcome	
Morning Session 1		
9:20 - 10:00	Zidan Wang (HKU)	Non-Hermitian Topological Phases and Beyond
10:00 -10:40	Jian Shen (Fudan)	Spintronics for Neuromorphic Computing
10:40-11:20	Coffee Break & Photo	
Morning Session 2		
11:20-12:00	Thomas Busch (OIST)	Topological Properties of Strongly Interacting Ultracold Few-Body Systems
12:00-12:30	Bo Yang (NTU)	Geometric Excitations of Topological Quantum Fluids in Partially Filled Chern Bands
12:30-13:00	Fernando Sols (UCM)	Temporal Nambu-Goldstone Mode and Floquet Thermodynamics in Spontaneous and Driven Floquet States
13:00-13:30	Sigmund Kohler (ICMM-CSIC)	Degeneracies, Conical Intersections, and Dissipation in Floquet Systems
13:30-15:00	Lunch	
Afternoon Session 1		
15:00-15:40	Adolfo del Campo (Luxembourg)	Counterdiabatic Quantum Critical Dynamics
15:40-16:10	Fuxiang Li (Hunan)	Defect Production across Higher-Order Phase Transitions beyond Kibble-Zurek Scaling
16:10-16:30	Koushik Paul (UPV/EHU)	Photonic Counterdiabatic Quantum Optimization Algorithm
16:30-17:00	Coffee Break	
Afternoon Session 2		
17:00-17:30	Mónica Benito (Augsburg)	Unified Linear Response Theory of Semiconductor- Superconductor Hybrid Quantum Circuits
17:30 -17:50	Juan Zurita (ICMM-CSIC)	Multipartite Entanglement Distribution in a Topological Photonic Network
17:50-18:20	Beatriz Pérez González (Augsburg)	Quantum Origin of Anomalous Phases in Cavity QED Materials
18:20-18:40	Álvaro Parra-López (IFT UAM/CSIC)	Analog Spacetimes and Relativistic Quantum Information in Bose-Einstein Condensates
Poster (Best Poster Award is sponsored by MDPI) / Welcome Cocktail		



Day 2: July 9 Workshops & Posters

Morning Session 1		
9:00 - 9:40	Carlo Rovelli (Aix-Marseille Université)	Quantum Gravity Transition Amplitudes and Quantum Computation
9:40 - 10:20	Hongqi Xu (Peking)	Towards Semiconductor Spin and Topological Quantum Computing
10:20-11:00	Weiping Zhang (Shanghai Jiaotong)	Quantum Enhanced Metrology with Strongly Correlated Atom-Light Interface
11:00-11:30	Coffee Break	
Morning Session 2		
11:30-12:10	David Guéry-Odelin (Toulouse-III)	Boosting Quantum Simulation with Quantum Control
12:10-12:40	Xiaopeng Li (Fudan)	Algorithmic Quantum Simulation of Quantum Thermodynamics
12:40-13:10	Dawei Lu (SUSTech)	Experimental Quantum Thermodynamics Using Nuclear Magnetic Resonance
13:10-13:40	Ruidong Zhu (Soochow)	Variational Quantum Algorithms for Spin Models
13:40-15:00	Lunch	
Afternoon Session 1		
15:00-15:40	Yanhong Xiao (Fudan)	Concurrent Spin Squeezing and Magnetic Field Tracking with Atomic Vapo
15:40-16:10	Georg Engelhardt (SUSTech)	Analysis of Spectroscopic Quantum Sensing using Full-Counting Statistics
16:10-16:40	Christopher Wächtler (ICMM-CSIC)	Topological Quantum Synchronization
16:40-17:00	Coffee Break	
Afternoon Session 2		
17:00-17:30	Alejandro Bermudez (IFT UAM/CSIC)	The Creutz-Hubbard Toolbox: Mimicking Particle Production and Chiral Waves in Gross-Neveu Models
17:30-18:00	Álvaro Gómez León (IFF-CSIC)	Extrinsic Topology in Photonic Lattices
18:00-18:30	Yuge Chen (Shanghai)	Topological Degeneracy Induced Flat Bands in Two-Dimensional Holed System
18:30-18:50	L. A. Castro-Enríquez (Andrés Bello)	Topological Entanglement in a Topological Insulator Nanowire Quantum Dot Hybrid System
Banquet		

Day 3: July 10 Workshops & Posters

Morning Session 1		
9:00 - 9:40	Juan José García Ripoll (IFF-CSIC)	Non-local Quantum Many-body Systems
9:40 -10:20	Kareljan Schoutens (IoP & QuSoft, Amsterdam)	Fermionic Brick in the Wall
10:20 -11:00	Xinhua Peng (USTC)	Advances in Nuclear-Spin-Based Quantum Sensors and their Applications
11:00-11:30	Coffee Break	
Morning Session 2		
11:30-12:10	Roman Orus (DIPC)	News on Quantum and Quantum- Inspired Machine Learning
12:10-12:40	Jose D. Martin (UV)	Quantum Machine Learning
12:40-13:10	Yu Shi (USTC)	Computation Speedup Based on Mapping to Z ₂ Lattice Gauge Theory
13:10-13:30	Tangyou Huang (CHAL)	Improved Quantum Process Tomography
13:30-15:00	Lunch	
Afternoon Session 1		
15:00-15:40	Germán Sierra (IFT, UAM-CSIC)	Chiral Tensor Networks and Conformal Field Theory
15:40-16:10	Javier Mas (USC & IGFAE)	Floquet Two-coupled SYK Model and Excited Wormholes
16:10-16 :30	Sebastián V. Romero (UPV/EHU)	Decoding Quantum Scrambling and Ergodicity in Quantum Battery Charging
16:30-17:00	Coffee Break	
Afternoon Session 2		
17:00-17:30	Miguel A. Garcia-March (UPV)	Unitary Evolution for Non-Unitary Dynamics: Application to Cluster-Ising Hamiltonians
17:30-18:00	Hong-Hao Tu (LMU)	Non-Cardy Conformal Boundary States via Symmetry Embedding and Lattice Realizations
18:00-18:30	Yuchi He (Ghent University)	Strongly Correlated Electrons in Twisted Bilayer Transition Metal Dichalcogenides
18:30-19:00	Yongcheng Ding (UPV/EHU)	Quantum Optics with Free Electrons: Ultrafast Stern-Gerlach Regime and Fractional Charge
Free Discussion		



Day 4: July 11 Workshops & Closing

Morning Session 1		
9:00 - 9:40	Kai Chang (Zhejiang University)	TBA
9:40-10:10	Elsa Prada (ICMM-CSIC)	Hybrid Superconductor-Semiconductor Nanostructures and the Search for Majorana Zero Modes
10:10-10:40	Yongping Zhang (SHU)	Band-edge Superfluid of Bose-Einstein Condensates in Spin-orbit-Coupled Zeeman Lattices
Closing Mark & Coffee Break		
11:00-12:00	Lab Tour	

