



28th February – 2nd March

1 st day -28 th February		
Morning sessions		
9:00	Reception Posting of session A posters	9:00
10:00	Opening session	10:00
10:15	Session 1: Low-Dimensionality and Quantum Systems <i>Chairman: Eduardo Castro</i>	10:15
10:15	Invited Aires Ferreira "Spin-orbit coupling phenomena in two-dimensional layered materials"	10:15
11:00	Coffee Break / Posters (session A)	11:00
11:30	Session 2: Phase Transitions and Critical Phenomena: <i>Chairman: João Amaral</i>	11:30
11:30	Invited V. Konotop "Steering of light in photonic Moiré lattices"	11:30
12:15	Oral 1: Henrique Prates, "Coherent oscillations and self-trapping of BECs in shallow superlattices"	12:15
12:30	Oral 2: Diogo Pinto, "The cell adaptation time sets a minimum length scale for patterned substrates"	12:30
12:45	Oral 3: Danilo Silva, "Effect of droplet deformability on shear thinning in a 3D channel"	12:45
13:00	Lunch	13:00

1 st day -28 th February		
Afternoon sessions		
14:15	Announcements	14:15
14:30	Session 3: Semiconductors and Dielectrics <i>Chairman: Mikhail Vasilevskiy</i>	14:30
14:30	Invited Rui Vilão "Muons as local probes in semiconductors and dielectrics"	14:30
15:15	Oral 1: Bruna Silva, "Dielectric Properties of Ruddlesden-Popper Ca ₃ Mn ₂ O ₇ thin films prepared by Pulsed Laser Deposition"	15:15
15:30	Oral 2: Mariana Gomes, "Phase sequence and properties of piezoelectric K _{0.5} Na _{0.5} NbO ₃ ceramics sintered by different routes"	15:30
15:45	Oral 3: Vanda Pereira, "Topological insulator/ferromagnetic insulator heterostructures: Bi ₂ Te ₃ on magnetite and iron garnets"	15:45
16:00	Coffee Break / Posters (session A)	16:00
16:30	Session 4: - Strongly Correlated Electron Systems <i>Chairman: Joaquín Rossier</i>	16:30
16:30	Invited P.Sacramento "Correlations and dynamic phase transitions in topological systems"	16:30
17:15	Oral 1: Bruno Murta, "Gutzwiller Wave Function on a Quantum Computer"	17:15
17:30	Oral 2: Carolina Marques, "The surface of Sr ₂ RuO ₄ : from unconventional orders to a magnetic-field tuned van Hove singularity"	17:30
17:45	Oral 2: Gonçalo Catarina, "Hubbard parent model for Haldane spin-1 chains"	17:45
18-20	Posters (session A)	18-20

2 nd day – 1 st March		
Morning sessions		
9:00	Removing session A posters and posting of session B posters	9:00
9:30	Session 5: Nanotechnology and Devices <i>Chairwoman: Susana Freitas</i>	9:30
9:30	Invited Ricardo Ferreira “Magnetic nano-devices applied to disruptive solutions for sensing, communications and information processing”	9:30
10:15	Oral 1: Sofia Teixeira, “Optimised topological insulators towards magnetoelectric spin-orbit meso logic devices”	10:15
10:30	Oral 2: Catarina Dias, “Bio/electronic interfaces for neuroprosthetics”	10:30
10:45	Oral 3: Joaquim Leitão, “Role of defects on the electrical performance of Cu(In,Ga)Se ₂ based solar cells: experimental and theoretical study”	10:45
11:00	Coffee Break / Posters (session B)	11:00
11:30	Session 6: Soft Matter and Biophysics <i>Chairman: Nuno Araújo</i>	11:30
11:30	Invited M. Alves “Purely elastic flow instabilities of complex fluids”	11:30
12:15	Oral 1: Pedro Patrício, “Convection patterns gradients of non-living and living micro-entities in hydrogels”	12:15
12:30	Oral 2: Cristovão Dias, “How to design cell-mediated self-assembled colloidal scaffolds”	12:30
12:45	Oral 3: Rodrigo Coelho, “Director alignment at active nematic-isotropic interfaces”	12:45
13:00	Lunch	13:00

2 nd day – 1 st March		
Afternoon sessions		
14:15	Divisão: Quantum Matter @ PT	14:15
14:30	Session 7: Low-Dimensionality and Quantum Systems <i>Chairman: Ricardo Dias</i>	14:30
14:30	Invited Joaquín Rossier “Magnetic 2D crystals: magnons and interlayer coupling”	14:30
15:15	Oral 1: Miguel Gonçalves Hidden dualities in 1D quasiperiodic lattice models	15:15
15:30	Oral 2: David Perkins, “Anomalous Weak Localisation Phase in Ultra-Clean van der Waals Heterostructures”	15:30
15:45	Oral 3: Lucas Sá, “Random Matrix Theory of Open Quantum Systems”	15:45
16:00	Coffee Break / Posters (session B)	16:00
16:30	Session 8: Low-Dimensionality and Quantum Systems <i>Chairman: João V. Lopes</i>	16:30
16:30	Invited Nuno Peres “Metallic gratings covered with 2D materials: a route to polaritonics”	16:30
17:15	Oral 1: João Pires, “Band Spectrum Deformation due to Small Clusters of Atomic-Sized Impurities in Dirac-Weyl Semimetals”	17:15
17:30	Oral 2: Hugo Terças, “Topological plasmons in graphene field-effect transistors with odd viscosity”	17:30
17:45	Oral 3: Diogo Cunha, “Optical Kerr effect in graphene under pulsed illumination in the visible spectral range”	17:45
18-20	Posters (session B)	18-20

3 rd day – 2 nd March		
Morning sessions		
9:00	Removing session B posters	9:00
9:30	Session 9: Magnetism <i>Chairwoman: Laura Pereira</i>	9:30
9:30	Invited G. Kakazei "Spin-wave spectroscopy of individual ferromagnetic nanoelements"	9:30
10:15	Oral 1: Artem Bondarenko, "Detecting a shadow of the magnetic vortex core"	10:15
10:30	Oral 2: Rui Vilarinho da Silva, "Magnetic and vibrational non-critical anomalies in RFeO ₃ "	10:30
10:45	Oral 3: Rafael Vieira, "High-throughput ab-initio calculations for magnetocaloric materials"	10:45
11:00	Coffee Break	11:00
11:30	Session 10: Functional Materials <i>Chairman: José A. Paixão</i>	11:30
11:30	Invited M Mendes "The New Horizons of Photovoltaics improved with Light Management"	11:30
12:15	Oral 1: João Belo da Silva, "Contraction and giant negative thermal expansion at the nanoscale in the Gd ₅ (Si,Ge) ₄ multifunctional materials"	12:15
12:30	Closing session	12:30