



PROGRAM

Monday 10 February	
11.00	Registration
14.00	Opening
14:20	Justin Ye (Keynote speaker) Ising Superconductivity in transition metal dichalcogenides <i>Chair: G. Profeta</i>
15:00	E. Piatti Ultrathin molybdenum disulphide as a gate-tunable multi-valley superconductor
15:20	D. Mondal Observation of spin polarized bands in NiTe ₂
15:40	L. Tomarchio THz Nonlinear Response of the Weyl Semimetal WTe ₂
16:00	C. Grazianetti Optical properties of Xenes epitaxially grown on AlO(000) substrate
16:20	Coffee Break
	<i>Chair: J. Lorenzana</i> <i>Chair: R. De Renzi</i>
16:40	T. Shiroka Structure and superconductivity in the binary Re _{1-x} Mo _x alloys
17:00	M. N. Gastiasoro Superconductivity mediated by ferroelectric fluctuations
17:20	G. Marini Superconductivity in Chevrel phases from first principles
17:40	D. Romanin Electric field exfoliation and high-T _c superconductivity in field-effect hole-doped hydrogenated diamond
18:00	G. Venditti Transport properties, superfluid stiffness and intrinsic inhomogeneity in two-dimensional superconductors
	A. Stroppa Magneto-optical Kerr switching properties and spin configurations of magnetic 2D heterostructures
	M. Benini Organic semiconductors modulating cobalt thin films magnetic anisotropy
	G. Varvaro Designing new ferrite/manganite nanocomposites
	M. Slimani Mesostructured silica/spinel iron Oxides nanoarchitectures: investigation of the magnetic properties
	E. Illes Impact of shell composition on iron oxide nanomagnets for biomedical use
19:00	Welcome
20:00	Poster session

Tuesday 11 February

08:30	M. V. Ganduglia-Pirovano (Keynote speaker) CeO-based Materials and Catalytic Function: The Non-Innocent Role of the Ceria Support <i>Chair: A. Filippetti</i>	
09:10	C. Autieri (Invited) Berry phase engineering at oxide interfaces	E. Gilardi (Invited) Interface Effects in Doped Ceria – Ytria-stabilized Zirconia Heterostructures
09:40	P. Gentile Topological phases driven by Rashba spin-orbit coupling in low-dimensional nanostructures	C. Aruta Role of dopant cations on functional properties in cerium oxide thin films for energy applications
10:00	W. Brzezicki Topology in non-symmorphic and non-Hermitian chiral chains	C. Sanna Structural and electrochemical characterization of $\text{La}_{0.4}\text{Sr}_{0.6}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ electrospun electrode for solid oxide cell applications
10:20	A. Lanzara The many faces of spin orbit coupling in quantum materials	D. Colombara Giant efficiency boost of Chalcopyrite/Zn(O,S) heterojunctions upon low-temperature annealing
10:40	Coffee Break	
11:10	<i>Chair: S. Lupi</i> A. Caviglia (Invited) Ultrafast optical control of quantum materials	<i>Chair: C. Senatore</i> F. Grilli (Invited) REBCO coated conductors are ready to take off
11:40	F. Pineider Magnetic modulation of plasmon resonances in Indium Tin Oxide nanocrystals	G. Celentano Development and Perspectives of HTS Cable-In-Conduit Conductor with Al-Slotted Core for Fusion Applications
12:00	M. Sygletou Optical properties of Transparent Conductive Oxides (TCOs)-based Systems	R. Musenich Superconducting Magnets for Space Applications
12:20	M. Corasaniti Fermi surface instability in the Dirac material $\text{Ca}_{1-x}\text{Na}_x\text{MnBi}_2$	A. Pietropaolo Superconducting Neutron Detectors: a proof of concept at spallation neutron source
12:40	C. Bigi Distinct electronic character and selective control of localised vs. delocalised carriers at (001) surface of anatase TiO_2	A. Traverso Bi-wire development for Canted Cosine Theta solenoids
13:00	Lunch	
14:40	<i>Chair: S. Sanna</i> G. Ghiringhelli Charge density waves and charge density fluctuations in high T_c superconducting cuprates	
15:00	M. Meinero Hydrodynamical charge density wave description for transport in the strange metal phase of cuprates	
15:20	G. Profeta Superconductivity in Mercury	
15:40	J. Lorenzana Silver route to high- T_c superconductivity	
16:00	S. Caprara Intrinsic inhomogeneity in low dimensional superconductors	
16:20	Coffee Break	
16:50	<i>Chair: F. Grilli</i> C. Senatore (Invited) Improvement of J_c and further enhancement of B_{c2} in Ta doped Nb_3Sn	<i>Chair: G. Ghiringhelli</i> F. Carbone (Invited) Switching the Verwey transition in magnetite
17:20	L. Civale How to improve $\text{REBa}_2\text{Cu}_3\text{O}_y$ films and coated conductors by tailoring pinning centers	M. Udina Theory of coherent-oscillations generation in terahertz pump-probe spectroscopy: from phonons to electronic collective modes
17:40	M. Polichetti Flux creep and second magnetization peak effect in type-II superconductors: correlation and universality	A. Marini Ultrafast nonlinear dynamics of two-dimensional materials
18:00	M. Capra Proteins MgB carbon doping through Freeze-drying process	S. Lupi Ultrafast manipulation of matter by extreme terahertz fields
18:20	L. Piperno Strategies for critical current enhancement in YBCO films obtained via chemical solution deposition	
20:00	Conference Dinner	

Wednesday 12 February

<i>Chair: A. Caviglia</i>	
08:30	<u>F. Giazotto (Invited)</u> <u>Josephson field-effect transistors go metal: A groundbreaking route towards concrete superconducting electronics</u>
09:00	C. Barone Current-Resistance Effects and Nonlinear Fluctuation Mechanisms in Granular Aluminum Oxide Nanowires for Quantum Computing Applications
09:20	M. Salluzzo Quasi-2D-oxides spintronics and quantum electronics
9:40	G. Prando Influence of hydrostatic pressure and of Eu/Bi substitution on the magnetic properties of $\text{Eu}_2\text{Ir}_2\text{O}_7$
10:00	S. Sanna Physical and structural properties of electron-doped 5d1 double perovskites
Coffee Break	
10:20	<i>Chair: C. Autieri</i>
10:50	D. Amoroso First-principles approach to novel D ferromagnets
11:10	A. Filippetti Layered Perovskites: a structural framework to implement ferroelectric and electromagnetic metals
11:30	R. Mathieu Magnetic and dielectric properties of Yb-doped $\text{PbFe}/\text{W}/\text{O}$
11:50	F. Forte Spin-Orbital Excitations in Spin-Orbit Coupled Mott Insulator
12:10	A. Avella Defects, Disorder, and Strong Electron Correlations in Orbital Degenerate, Doped Mott Insulators: Defect-Induced Orbital Polarization and Collapse of Orbital Order
<i>Chair: E. Gilardi</i>	
10:50	L. Pellegrino VO ₂ -based microactuators
11:10	V. Bonino New perspectives for X-ray nanopatterning of oxide systems
11:30	C. Groppi Integration of lead-free piezoelectric $(\text{K}_x\text{Na}_{1-x})\text{NbO}$ on silicon for microactuator technology applications
11:50	A. Sambri Self-formed, conducting $\text{LaAlO}/\text{SrTiO}$ micro-membranes
12:10	N. Manca Reversible strain-tuning of crystalline oxide microstructures via hydrogen gas
Lunch	
Opening joint session with IBS2app	
14:00	Yanwei Ma (Keynote speaker) Status of high-field iron-based superconducting wires and tapes
<i>Chair: G. Celentano</i>	
14:50	S. Calatroni Study of HTS coatings for beam impedance mitigation in the FCC
15:10	E. Silva YBCO coated conductors and thin films for high frequency applications in dc magnetic fields
15:30	L. Muzzi Superconductors for the Italian Divertor Tokamak Test Facility project
16:50	A. Morandi Research status and direction of HTS Fault Current Limiters
Coffee Break	
<i>Chair: S. Pagano</i>	
16:40	T. Gorni Impact of non-local exchange on Iron Pnictides
17:00	F. Caglieris Elasto-transport: a probe for nematic fluctuations in iron-based superconductors
17:20	R. Hussain Magnetic ordering and spin dynamics in LaOFeSe : a La NQR study
17:40	F. Bernardini Evidence of the isoelectronic character of F doping in $\text{SmFeAsO}_{1-x}\text{F}_x$
18:00	V. Vlasenko Planar defects and vortex pinning in EuRbFeAs iron-based superconductor