


8:30	REGISTRATION		
9:15	OPENING		
9:30	<b>S. P. Parkin (keynote)</b>	Non reciprocal superconductivity	
10:15		COFFEE BREAK	
10:45	<b>O. A. Fumega (Invited)</b>	2D van der Waals multiferroics. Theory and Atomic-scale Experiments	<b>N. Poccia (Invited)</b> Advances in the twistorics of cuprate superconductors
11:15	<b>L. Maranzana</b>	Spiral multiferroics as a natural skyrmion racetrack	<b>M. Trama</b> Self-consistent surface superconductivity in time-reversal symmetric Weyl semimetals
11:30	<b>G. Bellomia</b>	Engineering strongly correlated magnetic states in a quantum spin-Hall insulator with the help of quantum information theory	<b>A. Maiellaro</b> Engineered Josephson diode effect in kinked Rashba nanochannels
11:45	<b>Y. Chen</b>	Dirac-like fermions anomalous magneto-transport in a spin-polarized oxide twodimensional electron system	<b>R. Vaglio</b> Surface heating in HTS-based high field pulsed RF cavities
12:00	<b>A. Abdelsamie</b>	Electric field induced switching of antiferromagnetic states in single-domain multiferroic BiFeO <sub>3</sub>	<b>N. Pompeo</b> Microwave studies of the vortex dynamics in FeSeTe thin films: flux flow, anisotropy, pinning and effect of heavy-ions irradiation
12:15	<b>L. Camerano</b>	Symmetry broken phases and magneto-orbital coupling in Vanadium trihalides	<b>A. Leo</b> QUEnch mechanisms Study In superCONductors for Safe energy and energy Saving: the QUESTIONs project
12:30	<b>I. K. Nikolov</b>	Doping dependence of charge ordering and exotic magnetic phases in kagome superconductors	<b>A. Santacesaria</b> Two-phonon pairing mechanism for incipient ferroelectrics
12:45		LUNCH	
14:30	<b>F. Locardi (Invited)</b>	Ancient pigments meet modern technology: bridging past and future	<b>G. Serrano (Invited)</b> Magnetic hysteresis of bidimensional films of molecular magnets on superconductors
15:00	<b>M. Valadan</b>	Novel 2D Magnetic Nano-complexes for MRI application	<b>S. Tobisch</b> Complex structural arrangements at the CO <sub>2</sub> /In <sub>2</sub> O <sub>3</sub> (111) interface
15:15	<b>E. A. Martínez</b>	Comprehensive interfacial study of 2D electron gases generated in Si <sub>3</sub> N <sub>4</sub> /Al//KTaO <sub>3</sub> heterostructures	<b>D. Romanin</b> Strain-Induced Multiple Topological Phase Transitions in Conjugated Polyacene Polymers: A First-Principles Study
15:30	<b>G. Fioravanti</b>	Revisiting the influence of metal impurities and structural defects on the intrinsic paramagnetism of Graphene Oxide (GO)	<b>M. Nabi</b> Ferromagnetic chiral hybrid organic-inorganic perovskites
15:45	<b>G. Pavese</b>	Wafer-scale co-sputtering of Na-rich K <sub>(1-x)</sub> Na <sub>(x)</sub> NbO <sub>3</sub> films for control of microstructure and ferroelectric performance	<b>M. Rath</b> Scanning tunneling microscopy and x-ray photoemission studies of NdNiO <sub>2</sub> infinite-layer nickelates films
16:00		COFFEE BREAK	
16:30	<b>A. Galdi</b>	Atomic-level study and optimization of solid oxide fuel cell electrodes via operando x-ray absorption spectroscopy	<b>E. Piatti</b> Superconductivity induced by gate-driven hydrogen intercalation in the charge-density-wave compound 1T-TiSe <sub>2</sub>
16:45	<b>A. Omelyanchik</b>	Effect of Shell Architecture on Magnetic Properties of Bi-Magnetic Core/Shell Oxide Nanoparticles	<b>G. Gavello</b> Evidence of multi-gap superconductivity in H-intercalated 1T-TiSe <sub>2</sub>
17:00	<b>V. De Olivera Lima</b>	Anomalous magnetoresistance driven by interfacial proximity in YBCO/SRO and SRO/YBCO heterostructures	<b>N. Di Eugenio</b> Radiation Damage Modeling in High-Temperature Superconducting Materials with Atomistic Simulations
17:15	<b>S. Tosoni</b>	DFT Investigation of Transition Metal Nanoclusters on MgO (100) and MgO (100)/Ag (100): Toward Realistic Models of Supported Catalytic Particles	<b>A. Magalotti</b> Superconducting materials for axion dark matter detection and other high frequency / high field applications
17:30	<b>M. Zinouyeva</b>	High resolution RIXS reveals local distortions in high entropy oxides	<b>P. M. Forcella</b> Pressure Induced Superconductivity in HgS
17:45		POSTER SESSION - cheese and wine	

# Thursday 20

9:30	<b>A. Ballarino (Invited)</b>	Superconductivity for present and future colliders	<b>C. Franchini (Invited)</b>	Machine Learning for Oxides
10:00	<b>A. Leveratto</b>	Thallium-1223 films: a high temperature superconductor for the Future Circular Collider beamscreen	<b>B. Gianfeli</b>	Defect induced polaron hopping in the hybrid $\text{MoO}_3$ -Cu heterojunction
10:15	<b>M. R. Khan</b>	Characterization of REBCO tapes towards energy applications	<b>L. J. D'Onofrio</b>	Orbital angular momentum polarization effects in oxides
10:30	<b>M. Cialone</b>	Simple and low-cost Architecture for Iron-based Coated Conductors	<b>S. Lupi</b>	Equilibrium and Out of Equilibrium Polaronic Electrostatics
10:45		COFFEE BREAK		
11:15	<b>R. Gonnelli</b>	The order-parameter symmetry of $\text{Sr}_2\text{RuO}_4$ by directional Andreev-reflection spectroscopy	<b>S. Bandyopadhyay</b>	Non relativistic spin splitting in oxide perovskites
11:30	<b>A. Cucciari</b>	Ab-initio study of anharmonic effects and superconductivity in NbTi	<b>S. Sanna</b>	Spin-charge-lattice coupling in relativistic double perovskite Mott insulators
11:45	<b>M. Fracasso</b>	How to predict and mitigate thermomagnetic instabilities in $\text{MgB}_2$ bulks	<b>L. Celiberti</b>	Spin-orbit Jahn-Teller bipolarons in $\text{Ba}_2\text{Na}_{1-x}\text{Ca}_x\text{OSO}_6$
12:00	<b>B. Noheda (keynote)</b>		Ferroelectrics as artificial synapses	
12:45		LUNCH		
14:15	<b>J. van der Brink (keynote)</b>		Topological surface superconductivity in $\text{PtBi}_2$	
15:00	<b>N. Colonna</b>	Koopmans spectral functionals: Bridging density-functional and many-body perturbation theory	<b>F. Caglieris</b>	Evolution of dissipative regimes in atomically thin $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ superconductor
15:15	<b>F. Cilento</b>	On the light-induced rotated CDW phase in Triteluride compounds	<b>Y. Yerin</b>	Non-reciprocal transport phenomena in multi-band superconductors
15:30	<b>P. Di Pietro</b>	Terahertz driven nanosecond dynamics of oxygen defect state in anatase $\text{TiO}_{2-x}$	<b>N. Stegani</b>	Spontaneous Hall effect in superconducting materials
15:45	<b>N. Kumar</b>	Realization of Weak Anti Localization in KTO based heterostructures	<b>A. Angeletti</b>	Unveiling Metastable Disordered Phases In Superconductor N-doped $\text{LuH}_3$
16:00		COFFEE BREAK		
16:30	<b>P. Settembri</b>	Evidence of spin and charge density wave in Chromium electronic bands	<b>J. Lorenzana</b>	Ternary nickel hydrides and silver fluorides: towards ambient pressure high-Tc superconductivity without cuprates
16:45	<b>S. Artyukhin</b>	Magnetolectric switching in spiral multiferroics	<b>P. Bonfà</b>	Low-temperature electronic transition in $\text{RbV}_3\text{Sb}_5$ revealed by avoided Level Crossing muon-spin rotation technique
17:00	<b>A. Buzdakov</b>	Ultrafast melting of antiferromagnetic order in $\text{Cr}_2\text{O}_3$	<b>L. F. Tocchio</b>	Intertwined superconductivity and orbital selectivity in a three-orbital Hubbard model for the iron pnictides
17:15	<b>J. Fiore</b>	Fingerprints of amplitude (Higgs) and phase (Josephson plasmons) superconducting collective modes in THz 2D coherent spectroscopy	<b>N. Lo Gullo</b>	Dissipative and Josephson currents through flat bands: a non-Equilibrium Green function approach
17:30	<b>M. Parodi</b>	Modelling thermal transport in spiral magnets	<b>S. Gutowska</b>	Theoretical study of electron-phonon coupling and superconductivity of high entropy alloys

9:30		P. Radaelli (keynote)	Altermagnetism in Technicolor	
10:15	<b>F. Bisti (Invited)</b>	Many-body band renormalization in highly doped graphene	<b>S. Sharma (Invited)</b>	Femto-phonon magnetism
10:45	<b>M. Iannetti</b>	Edge states of the triangular QSH insulator Indenene	<b>P. Fachin</b>	Quantized Born Effective charges as probes for the topological phase transition in the Haldane and Kane-Mele models
11:00	<b>M. Ceccardi</b>	Field effect tuning of the transport properties of the Weyl semimetal candidate MnBi <sub>2</sub> Te <sub>4</sub>	<b>M. Fortino</b>	Atomistic simulations of lead- and tin-based chiral hybrid perovskites
11:15		COFFEE BREAK		
11:45	<b>G. A. Ummarino</b>	Can the noble metals (Au, Ag, and Cu) be superconductors?	<b>S. Mocatti</b>	Semiconductor Bloch Equations and Ehrenfest Dynamics in a Wannier Function Framework: An Integrated Approach to Ultrafast Electron and Ion Dynamics
12:00	<b>R. Arpaia</b>	Charge density fluctuations and their interplay with spin excitations in cuprate superconductors	<b>L. Monacelli</b>	Ultrafast quantum ionic dynamics to stabilize hidden phases of matter
12:15	<b>M. Aktas</b>	Multiple Topological Phase Transitions in polyacene polymers: An ab-initio parametrised 4-site SSH model	<b>S. Macis</b>	Terahertz and Infrared Plasmon Polaritons in PtTe <sub>2</sub> Type-II Dirac Topological Semimetal
12:30	<b>H. Rostami</b>	Ultrafast light-driven optical rotation and hidden orders in bulk WSe <sub>2</sub>	<b>F. Gabriele</b>	Terahertz-driven parametric excitation of Raman-active phonons in LaAlO <sub>3</sub>
12:45	<b>M. Faley</b>	Superconducting nanostructures and 2D superconducting materials for operation in transmission electron microscopes	<b>M. Ruggeri</b>	Charge Density Wave phase transition in bulk 1T-TaSe <sub>2</sub> using angle-resolved temperature dependence Raman spectroscopy

# Saturday 22

## Saturday Social Event:

Hiking on the local mountains (weather permitting)  
 Followed by lunch with traditional products at local restaurant (only for pre-registered participants)

9:30	Departure from Fontana Luminosa
10:30	Arrival in Montecristo. Hike/Snowshoeing - 2/3 hours
13:45 approx	Lunch near the hiking area
16:30 approx	Return at Fontana Luminosa