Monday 7th June 2021

Session Time

	12:45 - 13:00	Opening	
	13:00 - 13:30	Dante Kennes	Moiré heterostructures: a condensed matter quantum simulator
Twistronics and	13:30 - 13:45	Thomas Bömerich	Skyrmion and Tetarton Lattices in Twisted Bilayer Graphene
correlated systems simulators	13:45 - 14:00	Simona Achilli	Quantum transport of strongly correlated electrons through GeV complexes in silicon: a combined ab-inito and Hubbard model approach
	14:00 - 14:15	Banhi Chatterjee	Electronic structure and magnetism in UGa ₂ : DFT+DMFT approach
	14:15 - 14:45	Coffee break	
Quantum simulation	14:45 - 15:45	Fabian Grusdt	Parton picture of doped antiferromagnets: signatures in theory and experiment
	15:45 - 16:15	Roman Kuzmin	Quantum Impurity Physics In Circuit Quantum Electrodynamics
of many-body systems	16:15 - 16:30	Pauline Besserve	Strongly correlated materials via embedding methods: solving impurity models with a noisy quantum computer
	16:30 - 16:45	Lukas Rammelmüller	Improving the grasp of harmonically trapped fermions in low dimensions
16:45 - 17:00 Coffee break			
Advanced optical spectroscopies in	17:00 - 17:30	Antonio Mezzacapo	Simulation of quantum chemistry with quantum computers and neural networks
·	17:30 - 18:00		Guided discussion on quantum simulators
Out of equilibrium dynamics	18:00 - 19:00	Maksym Serbyn	From quantum many-body scars to time crystals: entanglement steering via periodic driving

Tuesday 8th June 2021

17:15 - 17:30

17:30 - 18:00

Maxime Rumo

Coffee break

Poster session I		
Coffee break		
s		
Coffee break		

structural origin

Insensitivity of the striped charge-orders in IrTe₂ to alkali surface doping implies their

Out of equilibrium dynamics	18:00 - 18:30	Konstantin Tikhonov	Random Regular Graphs to Many-Body Localization
	18:30 - 18:45	Alessio Lerose	Influence matrix approach to quantum many-body dynamics
	18:45 - 19:00	Antonio Picano	A Quantum Boltzmann equation for strongly correlated electrons
	19:00 -19:15	Guido Homann	Higgs time crystal in a high-Tc superconductor

Wednesday 9th June 2021

Session	Time		
	10:00 - 12:00	Poster session II	
	12:45 - 13:15	Cécile Repellin	Chern bands of twisted bilayer graphene: fractional Chern insulators and spin phase transition
	13:15 - 13:30	Armando Consiglio	Electronic Properties and Competing Zhang-Rice Singlets in a Stochastically Hole Doped Mixed Valence Cuprate with Glassy Behavior: the Case of LiCu ₂ O ₂
Topology in correlated systems	13:30 - 13:45	Anne Matthies	Driven Majorana Box Qubit
systems	13:45 - 14:00	Dorota Gotfryd	Spin-orbital entanglement in magnetic quantum materials
	14:00 - 14:15	Philipp Eck	Design and realization of a triangular QSHI: Indenene on SiC
	14:15 - 14:45	Coffee break	
	14:45 - 15:45	Roman Mankowsky	Lattice, charge, orbital and spin dynamics studied with ultrashort X-ray pulses
	15:45 - 16:00	Eugenio Paris	Unveiling ultrafast dynamics in quantum matter with soft x-rays: capabilities of the Furka endstation at SwissFEL
Free-electron laser	16:00 - 16:15	Andrea Eschenlohr	Microscopic insight into optically induced excitations in NiO through fs time-resolved x-ray absorption spectroscopy
based spectroscopies / numerical approaches	16:15 - 16:30	Allan S. Johnson	Nanoscale X-ray holographic imaging of the ultrafast insulator-to-metal phase transition in vanadium dioxide
to correlated systems	16:30 - 16:45	Denitsa Baykusheva	Ultrafast renormalization of the onsite Coulomb repulsion in an underdoped cuprate
	16:45 - 17:00	Francesco Grandi	Fluctuation control of non-thermal orbital orders
	17:00 - 17:15	David Moreno-Mencía	Tracking the ultrafast non-thermal demagnetization of $Sr_3Ir_2O_7$
	17:15 - 17:30	Coffee break	
	17:30 - 18:00		Guided discussion on excitonic insulators

	18:00 - 18:30	Giacomo Torlai	Enhancing Quantum Simulations with Data-Driven Models
Machine learning for correlated systems	18:30 - 18:45	Hideaki Iwasawa	Unsupervised Clustering of Spatially-resolved ARPES Data
	18:45 -19:00	i Kamai Choudhary	High-throughput search for magnetic topological materials using spin-orbit spillage, machine-learning and experiments

Thursday 10th June 2021

unconventional superconductivity

18:00 - 19:00 Riccardo Comin

Session	Time		
	12:45 - 13:15	Elsa Abreu	THz driven dynamics in Mott insulator GaTa₄Se ₈
Ultrafast optical	13:15 - 13:30	Paolo Franceschini	Toward Coherent Optical Control of the Insulator-to-Metal Transition in V ₂ O ₃
techniques in	13:30 - 13:45	Flavio Giorgianni	Nonlinear magnetophononics in a frustrated quantum antiferromagnet
correlated systems	13:45 - 14:00	Daniel Perez-Salinas	Ultrafast melting of a C4-symmetry-broken phase: multi-modal and disordered
	14:00 - 14:15	Selene Mor	Photoinduced modulation of the excitonic resonance via coupling with coherent phonons in a layered semiconductor
	14:15 - 14:45	Coffee break	
	14:45 - 15:15	Aline Ramires	Superconductivity in the locally non-centrosymmetric heavy fermion CeRh ₂ As ₂
	15:15 - 15:30	Atsushi Hariki	Core-level x-ray spectroscopy of infinite-layer nickelate: DFT+DMFT analysis
	15:30 - 15:45	Shunsuke Yamamoto	Calculation of collective-mode excitations in excitonic magnet Ca ₂ RuO ₄
Unconventional superconductivity /	15:45 - 16:15	Hlynur Gretarsson	Fingerprints of unconventional magnetism in ruthenates
charge and spin ordering phenomena	16:15 - 16:30	Fabio Boschini	Non-monotonic electron interactions in the copper oxide plane
ordering phenomena	16:30 - 16:45	Karin von Arx	Fate of charge order in overdoped La-based cuprates
	16:45 - 17:00	Eric Wahlberg	Reshaping the electronic phase diagram of a high-Tc superconductor by strain
	17:00 - 17:15	Leonardo Martinelli	Fractional magnetic excitations in a large ring-exchange cuprate observed by high resolution RIXS
	17:15 - 17:30	Coffee break	
	17:30 - 18:00		Guided discussion on twistronics
Topology and			

Topological physics and strong correlations in the 2D kagome network

		19:00 - 19:15	Closing the conference	Presentation of the next year organizers
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