



TTQM2022

Trends in the Theory of Quantum Materials 2022

Oct. 31 - Nov. 2, 2022

Zurich

Poster Presentations

HIT G-floor

Lorenzo Amato (PSI)

Coherent control of symmetry protected excitations of magnetic clusters

Marta Brzezinska (EPFL)

Polarization superlattices for controlling the electronic structure in graphene/h-BN multilayers

Tomáš Bzdušek (PSI)

From hyperbolic drum towards hyperbolic topological insulators

Christian Carisch (ETHZ)

Mixed state quantum random walk and the entanglement phase transition

Jiyu Chen

Inhomogeneous nonequilibrium DMFT with kernel memory truncation

Viktor Christiansson (University of Fribourg)

GW+EDMFT investigation of $\text{Pr}_{1-x}\text{Sr}_x\text{NiO}_2$ under pressure

Javier del Pino (ETHZ)

From chiral squeezing to nonlinear topology in optomechanics

Nobuo Furukawa (Aoyama Gakuin University)

Linear Flavor-Wave Analysis of SU(4)-Symmetric Tetramer Model

Filippo Gaggioli (ETHZ)

Strong pinning transition with arbitrary defect potentials

Vadim Geshkenbein (ETHZ)

Creep effects on the Campbell response in type II superconductors

Tatsuhiko Ikeda (ISSP)

Floquet ground state in periodically-driven many-body quantum systems

Zakaria Jouini (EPFL)

Emergent U(1) symmetry in non-particle-conserving 1D models

Johannes Knörzer (ETHZ)

Quantum Optics with Giant Artificial Atoms

Bastien Lapiere (University of Zurich)

Marginal quenches and drives in Tomonaga-Luttinger liquids

Benjamin Liegeois (ETHZ)

Tunable tachyon mass in PT-broken massive Thirring

Xiaoxiong Liu (University of Zurich)

Ab initio calculations of electrical magnetochiral anisotropy with Wannier interpolation

Markus Lysne (University of Fribourg)

A homodyne detection scheme for the measurement of quantum geometry and topological invariants

Giacomo Morpurgo (University of Geneva)

Anomalous magneto-transport at low density in a quasi 1d conductor

Aaron Müller (ETHZ – PHYS)

Ultrafast control of spin-orbital separation probed with time-resolved RIXS

Aaron Müller (ETHZ – MATL)

Effect of electrostatic interaction on domain structures of thin film hexagonal manganites

Mithilesh Nayak (EPFL)

Signature of two-triplet bound states condensation in the INS spectrum of SrCu₂(BO₃)₂ at high magnetic field

Samuel Nyckees (EPFL)

Identifying the Huse-Fisher universality class of the three-state chiral Potts model

Kiryl Pakrouski (ETHZ)

Weak ergodicity breaking in Hubbard, t - J - U and related models

Tudor Pahomi (ETHZ)

Quasiparticle conductance oscillations and snake states in domain walls of a chiral p -wave superconductor

Louk Rademaker (University of Geneva)

Electron slush and Mott criticality in TMD moirés

Sujay Ray (University of Fribourg)

Non-thermal superconducting order in multi-orbital systems

Aman Sharma (EPFL)

Quantum phases in small spin J_1 - J_2 chains

Yuto Shibata (ETHZ)

Strain modulation effects on the topological properties of a chiral p -wave superconductor

Karin Sim (ETHZ)

Quantum quench in non-Hermitian systems

Lidia Stocker (ETHZ)

Kondo physics in structured mesoscopic impurities

Andras Szabo (ETHZ)

Isospin phase transitions and superconductivity in Bernal bilayer and rhombohedral trilayer graphene

Tara Tasic (ETHZ)

Modelling magnetic order in the multiferroic hexagonal manganites

Andrea Urru (ETHZ)

Hidden magnetic octupoles and second-order magnetoelectric effect

Songbo Zhang (University of Zurich)

Symmetry breaking and spectral structure of the interacting Hatano-Nelson model

Yuhao Zhao (ETHZ)

Electron Optics in an Inverted-Band pn Junction