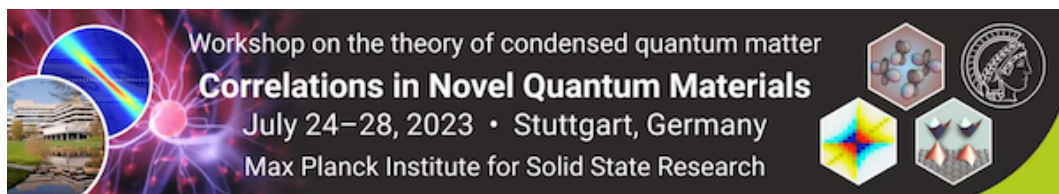


## Session Program

Jul 24 - 28, 2023



# Correlations in Novel Quantum Materials 2023 (CNQM2023)

## Poster Session

MPI-FKF, 2D5

# Mon, July 24

4:45 PM

## Poster Session

Session | Location: MPI-FKF, 2D5

4:45 - 7:30 PM

### Strongly correlated exciton-polarons in twisted homobilayer heterostructures

**Speaker**

Prof. Adriano Amaricci

4:45 - 7:30 PM

### Antiferromagnetism and spin-orbit interaction driven spin splitting in centrosymmetric hexagonal MnTe

**Speaker**

Mr Suman Rooj

4:45 - 7:30 PM

### The Mott metal-insulator transition in the two-dimensional Hubbard model - a cellular dynamical mean-field study on large clusters

**Speaker**

Michael Meixner

4:45 - 7:30 PM

### Unveiling the Significance of Zeroes of the Green's Function in Strongly Correlated Topological Insulators

**Speaker**

Andrea Blason

4:45 - 7:30 PM

### Kondo screening and coherence on the Kagome lattice: Energy scales of the Kondo effect in the presence of flat bands

**Speaker**

Christos Kourris

4:45 - 7:30 PM

### Planckian scaling of the optical conductivity in the 2D Hubbard model

**Speaker**

Maxence Grandadam

4:45 - 7:30 PM

### Quantics Tensor Cross Interpolation for High-Resolution, Parsimonious Representations of Multivariate Functions in Physics and Beyond

**Speaker**

Marc Ritter

4:45 - 7:30 PM

### Machine Learning Microscopic Form of Nematic Order in twisted double-bilayer graphene

**Speaker**

Mr João Augusto Sobral da Silva

4:45 - 7:30 PM

**Kondo breakdown transitions and phase-separation tendencies in valence-fluctuating heavy-fermion metals****Speaker**

Pedro Monteiro Consoli

4:45 - 7:30 PM

**How Cosmic Inflation Solves the Magnetic Monopole Problem?****Speaker**

Aditi Shreevastava

4:45 - 7:30 PM

**Field-theoretic functional renormalization group formalism for non-Fermi liquids****Speaker**

Anton Borissov

4:45 - 7:30 PM

**Superconductivity in Sr<sub>2</sub>RuO<sub>4</sub> revisited from a functional renormalization group perspective****Speaker**

Jonas Benedikt Hauck

4:45 - 7:30 PM

**Quasi-two-dimensional anisotropic superconductivity in Li intercalated 2H-TaS<sub>2</sub>****Speaker**

Ms Tarushi Agarwal

4:45 - 7:30 PM

**Establishing Coherent Momentum-Space Electronic States in Locally Ordered Materials****Speaker**

Dr Quentin Marsal

4:45 - 7:30 PM

**Triangular ad-atom surface lattices as a platform for correlated Hund's physics****Speaker**

Henri Menke

4:45 - 7:30 PM

**Spin-Peierls instability of the U(1) Dirac spin liquid****Speaker**

Josef Willsher

4:45 - 7:30 PM

**Magnetism and metallicity in moiré transition metal dichalcogenides****Speaker**

Patrick Tschepp

4:45 - 7:30 PM

**Synthesis and characterization of carbon quantum dots: comparison with calculation by DFTB+****Speaker**

Jorge Joe Espinosa Ventura

4:45 - 7:30 PM **Designing Fractionalized Topological Phases by Quantum Geometry**

**Speaker**

Jie Wang

4:45 - 7:30 PM

**Thermoelectric transport of charged two-dimensional Dirac systems: the role of plasmons****Speaker**

Kitinan Pongsangangan

4:45 - 7:30 PM

**Spin and Charge Fluctuation Induced Order in ABCB Tetralayer Graphene****Speaker**

Lennart Klebl

4:45 - 7:30 PM

**Riemann meets Goldstone: magnon scattering off quantum Hall skyrmion crystals probes interplay of symmetry breaking and topology****Speaker**

Nilotpal Chakraborty

4:45 - 7:30 PM

**Driven Hubbard Model on a Triangular Lattice: Tunable Heisenberg Antiferromagnet with Multiple Ordered and Disordered Phases.****Speaker**

Samudra Sur

4:45 - 7:30 PM

**Pi-ton vertex corrections in weakly correlated low-dimensional systems****Speaker**

Juraj Kršnik

4:45 - 7:30 PM

**Landau levels marking topological transitions in bilayer graphene****Speaker**

Nils Jacobsen

4:45 - 7:30 PM

**Study of linear optical properties of T graphene quantum dots****Speaker**

Arifa Nazir

4:45 - 7:30 PM

**Exceptional susceptibilities: How non-Hermitian topology protects correlation-induced phase instabilities****Speaker**

Matthias Reitner

4:45 - 7:30 PM

**Dipole representation of half-filled Landau level: quantum Hall and its bilayers****Speaker**

Dr Sonja Predin

4:45 - 7:30 PM

**Coexistence of Fermi and Luttinger liquids behavior in one-dimensional entangled spinless fermions****Speaker**

Prof. Julian Rincon

4:45 - 7:30 PM

**Symmetry-enforced Z2 topology****Speaker**

Kirill Parshukov

4:45 - 7:30 PM

**Correlation spectroscopy for correlated materials****Speaker**

Gautam Nambiar

4:45 - 7:30 PM

**Possible quantum phases in infinite-layer nickelates****Speaker**

Dr Andrzej M. Oles

4:45 - 7:30 PM

**Larmor precession in strongly correlated itinerant electron systems****Speaker**

Erik van Loon

4:45 - 7:30 PM

**Absence of electron-phonon-mediated superconductivity in hydrogen-intercalated nickelates****Speaker**

Dr Simone Di Cataldo

4:45 - 7:30 PM

**Twisted bilayer graphene at charge neutrality: competing orders of SU(4) Dirac fermions****Speaker**

Nikolaos Parthenios

4:45 - 7:30 PM

**Quantum restoration of Symmetry Protected Topological phases****Speaker**

Mr Dhruv Tiwari

4:45 - 7:30 PM

**Pseudogap opening in the Hubbard model at strong coupling****Speaker**

Miriam Patricolo

4:45 - 7:30 PM

**Efficient fRG Flow Equations for Extended Interactions and an Application to the Square and Triangular Lattices****Speaker**

Aiman Al-Eryani

4:45 - 7:30 PM

**The zoo of states in the two-dimensional Hubbard model****Speaker**

Robin Scholle

4:45 - 7:30 PM

**Disorder effects in the Kitaev-Heisenberg model****Speaker**

Ayushi Singhanian

4:45 - 7:30 PM

**Kondo Non-Abelian Anyons****Speaker**

Matan Lotem

4:45 - 7:30 PM

**Dragging of Berry curvature in ferromagnetic Weyl semimetals NiMnSb and PtMnSb****Speaker**

Ms Ana García-Page

4:45 - 7:30 PM

**Quantum phase transitions in non-Hermitian PT-symmetric Ising spin chains****Speaker**

Dr Grigorii A. Starkov

4:45 - 7:30 PM

**Kohn-Luttinger-like mechanism for CDW****Speaker**

Hannes Braun

4:45 - 7:30 PM

**Magnetism in the two-dimensional dipolar XY model****Speaker**

Björn Sbierski

4:45 - 7:30 PM

**Single-boson-exchange functional renormalization group and its application to the Hubbard model****Speaker**

Kilian Fraboulet

4:45 - 7:30 PM

**PT-symmetric non-Hermitian superconductivity****Speaker**

Viktoriia Kornich

4:45 - 7:30 PM

**Coherence and pairing fluctuations in strongly correlated superconductors****Speaker**

Niklas Witt

4:45 - 7:30 PM

**Dynamical fluctuations theory of correlated topological insulators****Speaker**

Francesca Paoletti

4:45 - 7:30 PM

**van Hove, Rashba, and Hubbard meet to form first-order and higher-order topological superconductors****Speaker**

Pietro Maria Bonetti

4:45 - 7:30 PM **Cluster Extension of DMF2RG**

**Speaker**

Marcel Krämer

4:45 - 7:30 PM

**Fundamental laws of chiral band crossings: local constraints, global constraints, and topological phase diagrams**

**Speaker**

Kirill Alpin

4:45 - 7:30 PM

**Phonon-mediated local Kekulé distortion turns twisted bilayer graphene into topological Mott insulators and superconductors**

**Speaker**

Andrea Blason

4:45 - 7:30 PM

**Exceptionally enhanced topological superconductivity**

**Speaker**

Rodrigo Arouca

4:45 - 7:30 PM

**Enhanced Superconducting Diode Effect due to coexisting Phases**

**Speaker**

Sayan Banerjee

4:45 - 7:30 PM

**Fermi surface reconstruction and strange metal behavior at a heavy fermion quantum phase transition**

**Speaker**

Andreas Gleis

4:45 - 7:30 PM

**Multi-orbital phenomenology within the ghost Gutzwiller approximation**

**Speaker**

Carlos Mejuto Zaera

4:45 - 7:30 PM

**Electron correlations and spontaneous symmetry-breaking in twisted bilayer graphene**

**Speaker**

Gautam Rai

4:45 - 7:30 PM

**Quasiuniversality from all-in-all-out Weyl quantum criticality in pyrochlore iridates**

**Speaker**

David Jonas Moser

4:45 - 7:30 PM

**Magnetic and pairing fluctuations in the gauge theory of the Pseudogap phase**

**Speaker**

Demetrio Vilardi

4:45 - 7:30 PM

**Electrical transport probes of quantum spin liquids**

**Speaker**  
Raffaele Mazzilli

4:45 - 7:30 PM

**Time-reversal invariant topological superconductor in the Coulomb blockade regime**

**Speaker**  
Steffen Bollmann

4:45 - 7:30 PM

**Kagome chiral spin liquid in transition metal dichalcogenide moiré bilayers**

**Speaker**  
Dr Johannes Motruk

4:45 - 7:30 PM

**Non-local correlations and criticality in the half-filled anisotropic triangular lattice Hubbard model**

**Speaker**  
Mário Malcolms de Oliveira

7:30 PM