

PRINCETON CENTER FOR COMPLEX MATERIALS
Princeton Summer School on Condensed Matter Physics 2024

POSTER PRESENTATION SESSION DAY 1

Rubenstein Commons, Room #5

July 24th, 2024

Poster # : **1**
Poster Presenter : Grigor Adamyan
Title : Hofstadter quasicrystals, hidden symmetries and irrational quantum oscillations
Affiliation : Johns Hopkins University

Poster # : **2**
Poster Presenter : Omer Mert Aksoy
Title : Gauging finite modulated symmetries in 1+1D and Kramers-Wannier dualities
Affiliation : Massachusetts Institute of Technology

Poster # : **3**
Poster Presenter : Meabh Allen
Title : Correlations Induced by Quench Protocols in Critical Spin Chains
Affiliation : University of California, Berkeley

Poster # : **4**
Poster Presenter : Amogh Anakru
Title : Topological Phases and Phase Transitions with Dipolar Symmetry Breaking
Affiliation : Penn State University

Poster # : **5**
Poster Presenter : Shilo Avraham
Title : Tuning coherence in granular aluminum nanobridges using microwaves
Affiliation : School of Physics and Astronomy, Tel-Aviv University

Poster # : **6**
Poster Presenter : Iftakhar Bin Elius
Title : Electronic structure of Rare earth based nodal line semimetal series ReSbTe
Affiliation : University of Central Florida (UCF)

Poster # : **7**
Poster Presenter : Sayanwita Biswas
Title : Effect of uniaxial strain on KTaO₃ superconductivity
Affiliation : University of Pittsburgh

Poster # : **8**
Poster Presenter : Tu Cao
Title : Solution to BCS equations for the model circular Fermi surface with an isotropic spin-fluctuation pairing interaction
Affiliation : George Mason University

Poster # : **9**
Poster Presenter : Kai-Hung Cheng
Title : Probing Condensed Matter Systems with Multiplexed Nanoscale Covariance Magnetometry
Affiliation : Princeton University

Poster # : **10 (WILL PRESENT DAY 2)**
Poster Presenter : Junggho (Daniel) Choi
Title : Lattice Relaxation Effects in Twisted Trilayer Transition Metal Dichalcogenides
Affiliation : New York University & Flatiron Institute, CCQ

Poster # : **11**
Poster Presenter : Zhi-Hao Cui
Title : Ab initio quantum chemistry of high-Tc superconductors
Affiliation : Columbia University

Poster # : **12**
Poster Presenter : Ceren B. Dag
Title : Cavity induced topology in graphene
Affiliation : Harvard University

Poster # : **13**
Poster Presenter : Sanjib Das
Title : From Local Spin Nematicity to Altermagnets: Footprints of Band Topology
Affiliation : Lehigh University

Poster # : **14**
Poster Presenter : Peter Ding
Title : Topologically protected flatness in chiral moiré heterostructures
Affiliation : Columbia University

Poster # : **15**
Poster Presenter : Yi-Hsien Du
Title : Nonlinear Bosonization, Coherent State, and Noncommutativity
Affiliation : University of Chicago

Poster # : **16**
Poster Presenter : Andreas Feuerpfeil
Title : Continuum Hamiltonians for Non-Abelian Spin Liquids
Affiliation : University of Wuerzburg

Poster # : **17**
Poster Presenter : Mario Frakulla
Title : Canonical spin wave expansion of Kondo lattice magnets in the strong coupling regime
Affiliation : Drexel University

Poster # : **18**
 Poster Presenter : Grayson Frazier
 Title : Designing Phase Sensitive Probes of Monopole Superconducting Order
 Affiliation : Johns Hopkins University

Poster # : **19**
 Poster Presenter : Tapesh Gautam
 Title : Valley-driven orbital polarization by a magnetic impurity in monolayer NbSe₂
 Affiliation : University of Missouri, Columbia

Poster # : **20**
 Poster Presenter : Jacob Hauser
 Title : Information dynamics of stabilizer codes with repeated syndrome measurements
 Affiliation : UC Santa Barbara

Poster # : **21**
 Poster Presenter : Niclas Heinsdorf
 Title : Higher Berry Curvature from Matrix Product States
 Affiliation : Max Planck Institute for Solid State and University of British Columbia

Poster # : **22**
 Poster Presenter : Ta-Chou Juan
 Title : Similar Topological Goldstone Modes and Magnon Ground State in Spin Model with Anisotropy
 Affiliation : University of California, Riverside

Poster # : **23**
 Poster Presenter : Jamin Kidd
 Title : First-principles phase diagram of an interacting ionic chain
 Affiliation : Tulane University

Poster # : **24**
 Poster Presenter : Christopher Leong
 Title : Spontaneous symmetry breaking on interacting Euclidean and hyperbolic non-Hermitian fermionic systems
 Affiliation : Lehigh University

Poster # : **25**
 Poster Presenter : Pak Kau Lim
 Title : Topological orders with classical Lie group edge symmetries from coupling electron wires
 Affiliation : University of California, Riverside

Poster # : **26**
 Poster Presenter : Yifan Liu
 Title : Finite-size corrections to the energy spectra of gapless one-dimensional systems in the presence of boundaries
 Junctions
 Affiliation : The University of Tokyo

Poster # : **27**
Poster Presenter : Ziyu Liu
Title : Evidence for chiral graviton modes in fractional quantum Hall liquids
Affiliation : Columbia University

Poster # : **28**
Poster Presenter : Troy Losey
Title : Analog quantum simulation of spin-1/2 XYZ model using solid-state spin centers
Affiliation : University of California Riverside

Poster # : **29**
Poster Presenter : Tianhong Lu
Title : Fractional Chern Insulators in Twisted Bilayer MoTe₂: A Composite Fermion Perspective
Affiliation : Emory University