

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

**POSTER PRESENTATION SESSION DAY 2**  
**Rubenstein Commons, Room #5**  
**July 25th, 2024**

- Poster # : **30**  
Poster Presenter : Kevin Lucht  
Title : Inducing Z<sub>2</sub> Topology in Twisted Nodal Superconductors  
Affiliation : Rutgers University
- Poster # : **31**  
Poster Presenter : Krishnanand Mallayya  
Title : Materials Expert-Artificial Intelligence for Materials Discovery  
Affiliation : Cornell University
- Poster # : **32**  
Poster Presenter : Dmity Manning-Coe  
Title : Ground state symmetry, stability and degeneracy in Mott insulators with long range interactions  
Affiliation : UIUC
- Poster # : **33**  
Poster Presenter : Pushkar Mohile  
Title : Random Measurements and Glassy Freezing in Quantum Liquids  
Affiliation : Stony Brook University
- Poster # : **34**  
Poster Presenter : Brandon Monsen  
Title : Topological Wigner-Mott-Kondo States in Fractionally Filled Topological Bands  
Affiliation : University of Pennsylvania
- Poster # : **35**  
Poster Presenter : Anqi Mu  
Title : On the Adequacy of the Dynamical Mean Field Theory for Low Density and Dirac Materials  
Affiliation : Columbia University
- Poster # : **36**  
Poster Presenter : Kelly Yohana Muñoz Gomez  
Title : Manipulation of the Dielectric Environment for Exciton Localization in Low-Dimensional Semiconductors  
Affiliation : Universidad Pedagógica y Tecnológica de Colombia

Poster # : **37**  
Poster Presenter : Sk Asrap Murshed  
Title : Yukawa-Lorentz symmetry of non-Hermitian birefringent spin-3/2 Dirac fermions  
Affiliation : Lehigh University

Poster # : **38**  
Poster Presenter : Gautam Nambiar  
Title : Two photon spectroscopy of Mott Insulators  
Affiliation : University of Maryland College Park

Poster # : **39**  
Poster Presenter : Shangqiang Ning  
Title : Classification for fermionic SPT in 3+1D  
Affiliation : The Chinese University of Hong Kong

Poster # : **40**  
Poster Presenter : Archisman Panigrahi  
Title : Transport signatures of electronic ordering in graphene  
Affiliation : Massachusetts Institute of Technology

Poster # : **41**  
Poster Presenter : Liangtao Peng  
Title : Theoretical determination of the effect of a screening gate on the superconductivity in twisted bilayer graphene  
Affiliation : Department of Physics, Faculty of Science, National University of Singapore

Poster # : **42**  
Poster Presenter : Amir Raz  
Title : Fractional Hall physics from large N  
Affiliation : University of Texas, Austin

Poster # : **43**  
Poster Presenter : Xingyu Ren  
Title : Complete classification of 3+1D interacting fermionic Symmetry-Protected Topological phases without p+ip superconductor decoration  
Affiliation : The Chinese University of Hong Kong

Poster # : **44**  
Poster Presenter : Shay Sandik  
Title : Superconducting Properties of Electron-Doped Cuprate Membrane Probed by Scanning SQUID Microscopy  
Affiliation : Tel Aviv university

Poster # : **45**  
Poster Presenter : Jeet Shah  
Title : Quantum spin ice in three-dimensional Rydberg atom arrays of Maryland, College Park  
Affiliation : University of Maryland, College Park

Poster # : **46 (UNABLE TO ATTEND)**  
 Poster Presenter : Vidushi Sharma  
 Title : Mixed Stochastic-Deterministic Density Functional Theory For Electronic Transport In Matter At The Extremes as a probe of non-Hermitian topological phases  
 Affiliation : Princeton University/Princeton Plasma Physics Laboratory and Los Alamos National Laboratory

Poster # : **47**  
 Poster Presenter : Rui Xian Siew  
 Title : Transverse Field Gamma-Matrix Spin Chains  
 Affiliation : Duke University

Poster # : **48**  
 Poster Presenter : Ophelia Sommer  
 Title : Higher Berry curvature from the wave function  
 Affiliation : Harvard

Poster # : **49**  
 Poster Presenter : Dmitrii Trunin  
 Title : Quantum chaos without false positives  
 Affiliation : Princeton University

Poster # : **50**  
 Poster Presenter : Nathan Valadez  
 Title : Momentum Dependent Charge Density Wave Gap in an Antiferromagnetic Metal  
 Affiliation : University of Central Florida

Poster # : **51**  
 Poster Presenter : Bram Vanraeynest- De Cuiper  
 Title : Pasting gauged SPT phases in (1+1)d and (2+1)d lattice models  
 Affiliation : Ghent University

Poster # : **52**  
 Poster Presenter : Gabriel Woolls  
 Title : A DMRG-like algorithm for optimizing 2-D isometric tensor networks on an infinite strip using MPO compression renormalization group study  
 Affiliation : UC Berkeley

Poster # : **53**  
 Poster Presenter : Xiaochuan Wu  
 Title : Bipartite Fluctuations of Critical Fermi Surfaces  
 Affiliation : The University of Chicago

Poster # : **54**  
 Poster Presenter : Hironobu Yoshida  
 Title : Generalized  $\eta$ -pairing states in extended SU(N) Hubbard models  
 Affiliation : University of Tokyo

Poster # : **55**  
Poster Presenter : Yongxin Zeng  
Title : Sublattice structure and topology in spontaneously crystallized electronic states  
Affiliation : Columbia University

Poster # : **56**  
Poster Presenter : Boran Zhou  
Title : Ancilla wavefunctions of Mott insulator and pseudogap metal through quantum teleportation  
Affiliation : Johns Hopkins University

Poster # : **57**  
Poster Presenter : Bo Zou  
Title : Vortices of interlayer exciton condensate in quantum Hall bilayer 2d electron gas  
Affiliation : The University of Texas at Austin

Poster # : **58**  
Poster Presenter : Jungho (Daniel) Choi  
Title : Lattice Relaxation Effects in Twisted Trilayer Transition Metal Dichalcogenides  
Affiliation : New York University & Flatiron Institute, CCQ