

'NEW FRONTIERS IN QUANTUM MATERIALS RESEARCH'

December 9th and 10th, 2021

Join Zoom Meeting

<https://ubc.zoom.us/j/69535616290?pwd=NXNQVmszWUFScGU1bkZtTTBoWDJQdz09>

Meeting ID: 695 3561 6290

Passcode: 123456

Agenda: MORNING SESSION: QUANTUM DYNAMICS AND STRUCTURES

Thursday, December 9 9:00 am-11:am PST (11-1:00pm CST)

Speaker name	Affiliation	Talk Title	Talk time PST /CST
Andrew Potter	UBC	Engineering non-Fermi liquids, quantum criticality, and topology in moire heterostructures	9-9:30 am PST / 11-11:30 am CST
Kaden Hazzard	Rice	Topological synthetic dimensions with programmable ultracold matter	9:30-10:00 am PST/ 11:30-noon CST
Ziliang Ye	UBC	Emerging Photovoltaic Effect in Ferroelectric MoS ₂	10-10:30 am PST/ Noon-12:30 pm CST
Hanyu Zhu	Rice	Magnon-phonon hybridization in van der Waals materials	10:30-11am PST/ 12:30-1pm CST

General Discussion 15 min: 11-11:15 am PST / 1-1:15CST

Agenda: AFTERNOON SESSION : NEW MATERIALS AND EMERGENT PHENOMENA

Thursday, December 9 1-2.30pm PST (3-4.30 pm CST)

Speaker name	Affiliation	Talk Title	Talk time PST /CST
Pengcheng Dai	Rice	Resonance from antiferromagnetic spin fluctuations for superconductivity of UTe ₂	1-1:30pm PST/ 3-3:30pm CST
Alannah Hallas	UBC	Magnetic order and disorder in high entropy spinel oxides	1:30-2 pm PST/ 3:30-4pm CST
Emilia Morosan	Rice	Topological non-collinear spin texture in centrosymmetric square net EuAl ₂ Ga ₂	2-2:30pm PST/ 4-4:30pm CST

General Discussion 15 min: 2:30-2:45pm PST/ 4:30-4:45 pm CST

Agenda: MORNING SESSION: TOPOLOGICAL MATERIALS BY DESIGN
FRIDAY, December 10 9:00 am-11:am PST (11-1:00pm CST)

Speaker name	Affiliation	Talk Title	Talk time PST /CST
Jennifer Cano	Flatiron	Topological Twistronics	9-9:30 am PST / 11-11:30 am CST
Marcel Franz	UBC	High-temperature topological superconductivity in twisted double layer copper oxides	9:30-10:00 am PST/ 11:30-noon CST
Philip Kim	Harvard	Emergent Interfacial Superconductivity between Twisted Cuprate Superconductors	10-10:30 am PST/ Noon-12:30 pm CST
Qimiao Si	Rice	Strongly correlated topological metals: Design rules via interactions and symmetry constraints	10:30-11am PST/ 12:30-1pm CST

General Discussion 15 min: 11-11:15 am PST/ 1-1:15CST

Agenda: AFTERNOON SESSION : TOPOLOGY IN BULK MATERIALS
Friday, December 10th 1-2.30pm PST (3-4.30pm CST)

Speaker name	Affiliation	Tentative Talk title	Talk time PST
Mohamed Oudah	UBC	Superconductivity and Quantum Oscillations in Single Crystals of the Compensated Semimetal CaSb ₂	1-1:30pm PST/ 3-3:30pm CST
Ming Yi	Rice	Bismuth halides--a quasi-1D material platform for novel topological states	1:30-2 pm PST/ 3:30-4pm CST
Sarah Burke*	UBC	Quasiparticle interference observation of the topologically non-trivial drumhead surface state in ZrSiTe	2-2:30pm PST/ 4-4:30pm CST

General Discussion 15 min: 2:30-2:45pm PST/ 4:30-4:45 pm CST

*To be confirmed